INTRODUCTION TO CURRICULUM FOR EARLY CHILDHOOD EDUCATION



Paris, Beeve and Springer
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Introduction to Curriculum for Early Childhood Education

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Preface

Welcome to learning about how to effectively plan curriculum for young children. This textbook will address:

- Developing curriculum through the planning cycle
- Theories that inform what we know about how children learn and the best ways for teachers to support learning
- The three components of developmentally appropriate practice
- Importance and value of play and intentional teaching
- Different models of curriculum
- Process of lesson planning (documenting planned experiences for children)
- Physical, temporal, and social environments that set the stage for children's learning
- Appropriate guidance techniques to support children's behaviors as the self-regulation abilities mature.
- Planning for preschool-aged children in specific domains including
  - Physical development
  - Language and literacy
  - Math
  - Science
  - Creative (the visual and performing arts)
  - Diversity (social science and history)
  - Health and safety
- How curriculum planning for infants and toddlers is different from planning for older children
- Supporting school-aged children's learning and development in out-of-school time through curriculum planning
- Making children's learning visible through documentation and assessment

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CHAPTER OVERVIEW

1: Foundations in Early Childhood Curriculum- Connecting Theory and Practice

Learning Objectives

Students will

- Explore How Children Learn
- Identify Theories in Early Childhood Programs
- Connect the Theories to Practice through Interaction & Intentionality
- Explore Use of 21st Century Technology in ECE

Early Childhood Educational Programming is fundamentally grounded in developmentally appropriate practices and is supported through theoretical foundations woven throughout a curriculum. Various types of programs may emphasize one theory over another or take on more of an array of theories by combining approaches to achieve program goals.

1.1: How Young Children Learn - What Science Reveals
1.2: Theoretical Foundations
1.3: Interaction and Conversation as Curriculum
1.4: Incorporating 21st Century Technology in the Early Childhood Education

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1.1: How Young Children Learn - What Science Reveals

Children play in order to figure things out, much like scientists who experiment and investigate in order to figure things out. Scientists who study how infants and young children think and feel describe them as small scientists (Gopnik, Meltzoff, and Kuhl 2000) who spend their days actively gathering and organizing information about what objects and people are like. As they play, children investigate how one object relates to another or how people relate to each other. According to Gopnik, Meltzoff, and Kuhl (2000), children actively build knowledge as they interact with the world around them.

In the early twentieth century, scientists and theorists—such as Jean Piaget and Lev Vygotsky—developed widely studied theories to explain how young children acquire knowledge. Scientists have continued to study children's ways of knowing by care- fully observing and listening as children pursue new skills, explore materials, solve problems, work together with others, and encounter experiences that prompt them to think and reason (Shonkoff and Phillips 2000.) Young children's actions and their explanations provide clues about how they develop ideas, master skills, and build knowledge. This research illuminates a key finding—infants and young children actively construct concepts and build skills by interacting with objects and with people, much of it occurring in the context of play. By nature, children are active participants in making meaning and constructing knowledge.

The body of research on the developing mind of the young child also adds to our understanding of what it means to teach and to plan curriculum for infants and young children. The long-standing image from K–12 education of an active, talking teacher who imparts information to passive, quiet children does not fit with what is known from the science of early learning and development. Young children seated at desks and quietly listening, not interjecting their ideas, represent an image that diverges from the image generated by developmental science: that of young children who seek to participate actively in an experience to build concepts, ideas, and skills. Studies show that infants and young children are highly motivated to explore new materials and to take on new challenges (Bowman, Donovan, and Burns 2000.)

Robust scientific evidence provides a starting point for guidance on planning and implementing early childhood curriculum. Reviews of research point clearly to three principles with respect to how young children learn (Bowman, Donovan, and Burns 2000; Hirsh-Pasek et al. 2009; Schonkoff and Phillips 2000):

- Children actively construct concepts like numbers, spatial relations, causality, and story.
- Children actively build skills like drawing, moving with ease, negotiating conflicts, and confidently and respectfully communicating ideas and feelings.
- Children actively develop dispositions such as thoughtfulness, empathy, and responsibility.

These principles guide the approach to early childhood curriculum described in this chapter. ***Children's thinking, their feelings, and their dispositions are the center of the curriculum and inform the planning and implementation of educational experiences.*** This approach contrasts with a subject-matter approach to curriculum, commonly used with older children and adults, in which the subject of study (such as science, literature, or mathematics) is placed at the center of the curriculum and used to organize the daily schedule of learning experiences and the learning environment. When the curriculum is organized around children's thinking, their feelings, and their dispositions to learn and to relate with others, the focus is on providing contexts in which children have rich opportunities to build concepts and skills through meaningful exploration and active experimentation.

For example, for a group of three- and four-year-olds fascinated by the heavy equipment vehicles passing outside the yard, a teacher might use a construction site next to the school as the context for study or focus of the curriculum. The children's excitement about the ongoing construction inspires an investigation with the children of the events underway in this neighboring lot. In considering the study of the construction site, teachers can envision ample opportunity for children to build concepts related to science, mathematics, literature, the arts, and social studies. The teachers create learning contexts that engage children in finding out more about the events underway in the neighboring construction project. Such an investigation offers many possibilities for the children to explore concepts from various domains or subject areas addressed in the three volumes of the preschool learning foundations such as size, number, spatial relations, causality, story, song, drama, visual representation, and much more. With the preschool learning foundations and curriculum framework as guides, teachers can within this study tap multiple domains—social science, natural science, physical science, language arts, visual arts, physical development, and mathematics.[1]



Figure 1.2: Construction vehicles in the sandbox could be one opportunity teachers could provide.[2]

References

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1.2: Theoretical Foundations

Early Childhood Educators rely on theories to provide evidentiary support to their program goals, philosophies and methods felt throughout their programs. While there are numerous theories, a few are highlighted in this chapter in how they relate to creating programs for learning for young children.

Cognitive Theory

Jean Piaget explained learning as proceeded by the interplay of assimilation (adjusting new experiences to fit prior concepts) and accommodation (adjusting concepts to fit new experiences). The to-and-fro of these two processes leads not only to short-term learning, as pointed out in, but also to long-term developmental change. The long-term developments are really the main focus of Piaget's cognitive theory. After observing children closely, Piaget proposed that cognition developed through distinct stages from birth through the end of adolescence. By stages he meant a sequence of thinking patterns with four key features:

1. The stages always happen in the same order.
2. No stage is ever skipped.
3. Each stage is a significant transformation of the stage before it.
4. Each later stage incorporated the earlier stages into itself. Basically this is the "staircase" model of development mentioned at the beginning of this chapter.

Piaget proposed four major stages of cognitive development, and called them (1) sensorimotor intelligence, (2) preoperational thinking, (3) concrete operational thinking, and (4) formal operational thinking. Each stage is correlated with an age period of childhood, but only approximately. In Early Childhood Education, we primarily consider the first two stages as they are most common for children ages 0-8 years.

The Sensorimotor Stage: Birth to Age 2

In Piaget's theory, the sensorimotor stage is first, and is defined as the period when infants "think" by means of their senses and motor actions. As every new parent will attest, infants continually touch, manipulate, look, listen to, and even bite and chew objects. According to Piaget, these actions allow them to learn about the world and are crucial to their early cognitive development.



Figure 2.3: Sensorimotor learning in action.[1]

The infant's actions allow the child to represent (or construct simple concepts of) objects and events. A toy animal may be just a confusing array of sensations at first, but by looking, feeling, and manipulating it repeatedly, the child gradually organizes her sensations and actions into a stable concept, toy animal. The representation acquires a permanence lacking in the individual experiences of the object, which are constantly changing. Because the representation is stable, the child "knows", or at least believes, that toy animal exists even if the actual toy animal is temporarily out of sight. Piaget called this sense of stability object permanence, a belief that objects exist whether or not they are actually present. It is a major achievement of sensorimotor development, and marks a qualitative transformation in how older infants (24 months) think about experience compared to younger infants (6 months).

During much of infancy, a child can only barely talk, so sensorimotor development initially happens without the support of language. It might therefore seem hard to know what infants are thinking, but Piaget devised several simple, but clever experiments to get around their lack of language. Piaget's findings suggest that infants do indeed represent objects even without being able to talk (Piaget, 1952). In one, for example, he simply hid an object (such as a toy animal) under a blanket. He found that doing so consistently prompts older infants (18-24 months) to search for the object, but fails to prompt younger infants (less than six months) to do so. (You can try this experiment yourself if you happen to have access to a young infant.) "Something" motivates the search by the older infant even without the benefit of much language, and the "something" is presumed to be a permanent concept or representation of the object.

The Preoperational Stage: Age 2 to 7

In the preoperational stage, children use their new ability to represent objects in a wide variety of activities, but they do not yet do it in ways that are organized or fully logical. One of the most obvious examples of this kind of cognition is dramatic play, the improvised make-believe of preschool children. If you have ever had responsibility for children of this age, you have likely witnessed such play. Ashley holds a plastic banana to her ear and says: “Hello, Mom? Can you be sure to bring me my baby doll? OK!” Then she hangs up the banana and pours tea for Jeremy into an invisible cup. Jeremy giggles at the sight of all of this and exclaims: “Rinnng! Oh Ashley, the phone is ringing again! You better answer it.” And on it goes.

Children immersed in make-believe may seem to have an inaccurate understanding of the world, in that they do not think realistically. But at some level, Ashley and Jeremy always know that the banana is still a banana and not really a telephone; they are merely representing it as a telephone. They are thinking on two levels at once—one imaginative and the other realistic. This dual processing of experience makes dramatic play an early example of metacognition, or reflecting on and monitoring of thinking itself. As we explained previously, metacognition is a highly desirable skill for success in school, one that teachers often encourage (Bredekamp & Copple, 1997; Paley, 2005). Partly for this reason, teachers of young children (preschool, kindergarten, and even first or second grade) often make time and space in their classrooms for dramatic play, and sometimes even participate in it themselves to help develop the play further.[2]



Figure 1.4: Children engaged in make-believe play.[3]

Pause to Reflect

As a lab school, students often visit children’s classrooms to observe the environments and interactions to connect theory with practice. One day, I decided to take a small group of students to observe the environment in one of our preschool classrooms. As we opened the door, I heard a young child (age 3 years) say to her caregiver, “Why are all the mommies here?” The caregiver acknowledged the child’s observation, but explained that the visitors were there to learn about the classroom. The child continued to watch us as we walked through the classroom. [4]

How does this example provide evidence of Piaget’s Cognitive Theory?

Children grow and develop through stages, and so does their play. Children’s earliest play experiences are highly sensory driven and simple exchanges with caregivers and materials within their environment. Many of the early play experiences promote a sense of discovery and lead to positive interactions among children and adult caregivers. As the child develops more complex play develops too. Infants observe and interact with materials through the use of the five senses. As the infant develops, he or she continues to observe, explore and experiment with materials within the environment, thus obtaining knowledge.

Sociocultural Theory

Lev Vygotsky (1978), whose writing focused on how a child’s or novice’s thinking is influenced by relationships with others who are more capable, knowledgeable, or expert than the learner. Vygotsky made the reasonable proposal that when a child (or novice) is learning a new skill or solving a new problem, he or she can perform better if accompanied and helped by an expert than if performing alone—though still not as well as the expert. Someone who has played very little chess, for example, will probably compete against an opponent better if helped by an expert chess player than if competing against the opponent alone. Vygotsky called the difference between solo performance and assisted performance the zone of proximal development (or ZPD for short)—meaning, figuratively speaking, the place or area of immediate change. From this social constructivist perspective, learning is like assisted performance (Tharp & Gallimore, 1991).

During learning, knowledge or skill is found initially "in" the expert helper. If the expert is skilled and motivated to help, then the expert arranges experiences that let the novice practice crucial skills or construct new knowledge. In this regard, the expert is a bit like the coach of an athlete—offering help and suggesting ways of practicing, but never doing the actual athletic work himself or herself. Gradually, by providing continued experiences matched to the novice learner's emerging competencies, the expert-coach makes it possible for the novice or apprentice to appropriate (or make his or her own) the skills or knowledge that originally resided only with the expert.[5]

Psychosocial Theory

Erik Erikson suggested that our relationships and society's expectations motivate much of our behavior. Humans are motivated, for instance, by the need to feel that the world is a trustworthy place, that we are capable individuals, that we can make a contribution to society, and that we have lived a meaningful life. Erikson divided the lifespan into eight stages. In each stage, we have a major psychosocial task to accomplish or crisis to overcome. Erikson believed that our personality continues to take shape throughout our lifespan as we face these challenges in living.[6]

In planning a developmentally appropriate curriculum, Erikson's stages can be used as inspiration for interactions between children, children and adults (teachers/families) and for emphasizing quality environments, which promote trust, autonomy, initiative and industrious interactions.[7]

Table 1.1 - **Erik Erikson's Psychosocial Theory**

Name of Stage	Description of Stage
Trust vs. mistrust (0-1)	The infant must have basic needs met in a consistent way in order to feel that the world is a trustworthy place.
Autonomy vs. shame and doubt (1-2)	Mobile toddlers have newfound freedom they like to exercise and by being allowed to do so, they learn some basic independence.
Initiative vs. Guilt (3-5)	Preschoolers like to initiate activities and emphasize doing things "all by myself."
Industry vs. inferiority (6-11)	School aged children focus on accomplishments and begin making comparisons between themselves and their classmates
Identity vs. role confusion (adolescence)	Teenagers are trying to gain a sense of identity as they experiment with various roles, beliefs, and ideas.
Intimacy vs. Isolation (young adulthood)	In our 20s and 30s we are making some of our first long-term commitments in intimate relationships.
Generativity vs. stagnation (middle adulthood)	The 40s through the early 60s we focus on being productive at work and home and are motivated by wanting to feel that we've made a contribution to society.
Integrity vs. Despair (late adulthood)	We look back on our lives and hope to like what we see-that we have lived well and have a sense of integrity because we lived according to our beliefs.

Behavioral Theory

In classrooms, behaviorism is most useful for identifying relationships between specific actions by a student and the immediate precursors and consequences of the actions. It is less useful for understanding changes in students' thinking; for this purpose we need theories that are more cognitive (or thinking-oriented) or social, like the ones described later in this chapter. This fact is not a criticism of behaviorism as a perspective, but just a clarification of its particular strength or usefulness, which is to highlight observable relationships among actions, precursors and consequences. Behaviorists use particular terms (or "lingo," some might say) for these relationships. One variety of Behaviorism that has proved especially useful to educators is operant conditioning.

Operant conditioning: New Behaviors Because of New Consequences

Operant conditioning focuses on how the consequences of a behavior affect the behavior over time. It begins with the idea that certain consequences tend to make certain behaviors happen more frequently. If I compliment a student for a good comment made during discussion, there is more of a chance that I will hear further comments from the student in the future (and hopefully they too

will be good ones!). If a student tells a joke to classmates and they laugh at it, then the student is likely to tell more jokes in the future and so on.

The original research about this model of learning was not done with people, but with animals. One of the pioneers in the field was a Harvard professor named B. F. Skinner, who published numerous books and articles about the details of the process and who pointed out many parallels between operant conditioning in animals and operant conditioning in humans (1938, 1948, 1988). Skinner observed the behavior of rather tame laboratory rats (not the unpleasant kind that sometimes live in garbage dumps). He or his assistants would put them in a cage that contained little except a lever and a small tray just big enough to hold a small amount of food. At first the rat would sniff and "putter around" the cage at random, but sooner or later it would happen upon the lever and eventually happen to press it. Presto! The lever released a small pellet of food, which the rat would promptly eat. Gradually the rat would spend more time near the lever and press the lever more frequently, getting food more frequently. Eventually it would spend most of its time at the lever and eating its fill of food. The rat had "discovered" that the consequence of pressing the level was to receive food. Skinner called the changes in the rat's behavior an example of operant conditioning, and gave special names to the different parts of the process. He called the food pellets the reinforcement and the lever-pressing the operant (because it "operated" on the rat's environment).

Operant Conditioning and Students' Learning

Since the original research about operant conditioning used animals, it is important to ask whether operant conditioning also describes learning in human beings, and especially in students in classrooms. On this point the answer seems to be clearly "yes." There are countless classroom examples of consequences affecting students' behavior in ways that resemble operant conditioning, although the process certainly does not account for all forms of student learning (Alberto & Troutman, 2005). Consider the following examples. In most of them the operant behavior tends to become more frequent on repeated occasions:

- A kindergarten child raises her hand in response to the teacher's question about a story (the operant). The teacher calls on her and she makes her comment (the reinforcement).
- Another kindergarten child blurts out her comment without being called on (the operant). The teacher frowns, ignores this behavior, but before the teacher calls on a different student, classmates are listening attentively (the reinforcement) to the student even though he did not raise his hand as he should have.
- A child who is usually very restless sits for five minutes during a group time (the operant). The teacher compliments him for working hard (the reinforcement).[8]



Figure 1.5: Operant conditioning is often used during large group times.[9]

The Behavioral Theory is most visible in an ECE classroom through modeling of expected behavior, reinforcing pro-social behavior expected and through the daily routines and schedules. (See Environments, Chapter 5 for further review of routines).[10]

Multiple Intelligence Theory

Howard Gardner, a researcher, has studied the mind and created a theory called, The Multiple Intelligence Theory. The theory represents the idea that children are individuals with a variety of strength in different intelligences and states that one's intelligence is not better than another persons'. Teachers can use this theory to create a curriculum to respect the individual way in which children process information and provide experiences that allow children to engage in all the intelligences.

The intelligences include:

- Verbal-Linguistic – ability to use language well
- Logical-Mathematic – ability to reason
- Musical-Rhythmic – ability to create and understand music
- Visual-Spatial – ability to image and manipulate the arrangement of objects in the environment
- Bodily-Kinesthetic – sense of balance and coordination in use of one's body

- Interpersonal – ability to discern others thoughts and feelings and understand and interact effectively with others
- Intrapersonal – sensitivity to one's own thoughts and feelings
- Naturalist – sensitivity to subtle differences and patterns in the natural environment
- Existential (still under study) – sensitivity and capacity to tackle deep questions about human existence[11]



Figure 1.6: Multiple Intelligences. [12]

Additional Considerations: Learning Styles

Children are unique and learn at their own pace in their own way. One-size does not fit all and learning styles and preference vary. In a group of children, a teacher can encounter children who learn best through visual, auditory, or hands-on interactions. And sometimes a child may learn best in a particular domain or area with one style, and with a different style in another domain or area.

Table 1.2: Learning Styles

Learning Styles	Learning Preferences
Visual	Pictures, real life objects to visually examine, seeing someone model a skill
Auditory	Listening, songs, rhymes, stories, chants
Tactile/kinesthetic	Gestures, body movements, hands-on manipulation, active exploration

Implications for teachers include identifying the child's style of learning and creating a program for learning that reflects the variety of learning styles present in a classroom. It's important to offer learning experiences in all styles, which is referred to as multimodal.[13]

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1.3: Interaction and Conversation as Curriculum

Interactions and conversations throughout the day model for young children the expected ways of communicating with and being with members of the group or community. Through the ways in which they interact and talk with young children and guide children's behavior, teachers support children in learning the code of behavior and the language of the education and care community. Children rely on family members and teachers to provide the experience of expected patterns of behavior, interactions, and language. At home, children experience interactions and language that are grounded in their family's culture. In the early care and education setting, they encounter what might be a different expected pattern of behavior, interaction, and language from what they experience at home.

The following vignette offers an opportunity to observe and listen to learning from the children's point of view and to see what the teacher intentionally does to guide the children's thinking.

Vignette

Mr. Ravi and his group of preschool children enter the play yard on Monday morning. As several children run to the sandbox, Vicente shouts with dismay, "Oh, look! Somebody ruined our fort and messed up all the hiding places we dug for our food! That was mean!" Mr. Ravi comes over quickly to join them. He surveys the logs and boulders strewn around in the sand and notes the children's distress and sense of outrage.

Mr. Ravi responds sympathetically, "You all spent so much time working together to build this last Friday. It does seem unfair that it has been destroyed. Do you have ideas about what to do?"

Vicente suggests, "I know! We can make it over again and then you can write a sign that says, 'Keep Out. This is OUR fort.'" The other children agree.

Mr. Ravi says, "It sounds like you have a plan to rebuild and protect your project. I know that Marcos can write words and likes to make signs. Why don't you ask him if he would be willing to make the sign you need?" The children agree with this idea, and Mr. Ravi accompanies them to talk to Marcos, who sits alone on the stairs. "This is going to take a lot of teamwork," comments Mr. Ravi.

"Yeah, but we're getting really good at teamwork," responds Vicente confidently.[1]

This experience illustrates what is referred to in the California Preschool Curriculum Framework as a teachable moment. It was not planned, and the teacher had no way of knowing that it was going to occur. It was a spontaneous encounter, but when planning at an earlier time, the teacher had wondered whether one like it would occur and had considered how he would respond in such a moment. Having in mind how to respond to various situations, especially moments of conflict or misunderstanding, emerges from the reflective curriculum planning that early childhood teachers do. It also allows the teacher to think about how to include a child who was not participating with other children and may not have had the social skills to join the group on his own. Knowledge of group dynamics helped the teacher be aware of opportunities to connect Marcos with his peers.

Here is another example of how a teacher is supporting learning. In this classroom, the children speak four different languages.

Vignette

All the children are playing outdoors, and the teachers have set up a board with openings in different shapes (e.g., circle, square, triangle, rectangle). Jasmine, a child who speaks Farsi, is looking toward the board and appears interested. Mr. Li gestures to Jasmine to come closer and picks up a beanbag. He models for Jasmine how to throw the beanbag toward the board at the different openings. While he throws the beanbag with an underhand motion, he simultaneously says, "Look, Jasmine, I swing my arm and throw the beanbag." Mr. Li repeats the physical action several times while simultaneously describing his actions. He then encourages Jasmine to try it. When Jasmine picks up the beanbag, Mr. Li smiles and repeats, "Swing your arm and throw. That's the way to do it, Jasmine!"[2]

This type of reflective curriculum planning may not show up in daily or weekly posted written plans. Through planning, teachers are able to anticipate interactions and conversations in which they may help children think about how to solve a problem or resolve a dispute, or support children in learning a new language. Early childhood curriculum includes principles and approaches for how teachers can support young children in learning English, when their home language is not English (CDE 2010a, 177–223.)

Early childhood curriculum also includes principles and approaches for intervening when conflicts between children arise (CDE 2010a, 67–68.) ***Some of what teachers do to plan such curriculum is written into the daily or weekly plans, but much of it occurs during teachable moments, in which teachers already have in mind a clear plan for what to do, how to do it, and when to do it.*** Even so, the moments that teachers apply their plans are not known to them in advance. The principles and approaches addressed in the frameworks necessarily go beyond a series of planned activities.

For Example:

*A teacher watches an infant who is on the verge of being able to crawl. The child focuses her gaze on a desired yet distant object and attempts to move toward it. In spite of her effort, she barely budges. The teacher watches the infant's expression of delight change to a frown and tears welling up in the baby's eyes. The teacher knows to move closer to the child and offer words of encouragement. The teacher's attentive presence, calm voice, and look of encouragement reassure the child, help her focus her attention, and prompt her to sustain her efforts. Feeling connected with the teacher and emotionally secure, the child is ready to try again, moves forward on all fours, and looks at the teacher with an expression of glee and surprise.**[3]*

These examples illustrate how teachers support children in negotiating projects, in building language skills, or in trying a challenging physical movement. Such examples are integral to daily life in an early childhood education and care setting. Teachers keep in mind concepts and skills described in the foundations and apply strategies and approaches presented in the frameworks, as they engage in interactions and conversations that occur within unplanned yet curriculum-rich teachable moments. In the two preceding examples the teachers supported children's learning in an intentional way, yet their responses and strategies were not spelled out ahead of time in their written plans. Nevertheless, the teachers know that such interactions and conversations are important components of the curriculum in early childhood settings.[4]

References

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1.4: Incorporating 21st Century Technology in the Early Childhood Education

The rapid development of technological devices such as computers, smart- phones, tablets, and gaming systems has dramatically changed people's daily lives at home and at work. New technologies and electronic media provide tools for communication and social-networking, for searching and documenting information, and for learning and entertainment. Young children are growing up surrounded by technology and electronic media. At least two-thirds of homes with children (birth to age six) have computers and Internet access (Gutnick et al. 2010; Roberts and Foehr 2008). Moreover, according to a national survey by Common Sense Media in 2011, 52 percent of young children (birth to age eight) have access to smartphones or tablets (Rideout 2011). Young children are active media users (Roberts and Foehr 2008). They acclimate with ease to digital devices and show confidence in using software (Clements and Sarama 2008). With the prevalence of technology and electronic media in their environment, young children are spending an increasing number of hours in front of screen technologies, particularly television, but also computers and other devices, with an average of 2.2 hours per day of screen time for children between the ages of two and five (Roberts and Foehr 2008).

Children from low-income families, families with less education, and black, Hispanic, and rural families are less likely to have access to the newest technologies and to broadband connections to the Internet (U.S. Department of Commerce 2011). Inequality in access to technology has narrowed over the years, but the "digital divide" still exists (Roberts and Foehr 2008).

The pervasiveness of electronic media in the lives of many young children makes educators, parents, and advocates question the value of technology in children's development. Some electronic media such as certain television programs, videos, and DVDs are non-interactive and involve passive viewing. Other forms of electronic media such as software programs, applications, the Internet, e-books, and certain television programs facilitate active and creative use by young children. These latter forms are referred to as interactive media (NAEYC and FRC 2012). There is limited research on the impact of newer technology, such as computer software, handheld devices, interactive applications for mobile devices, and wireless technology, on children's development. Most of the research on the impact of media on young children has focused on television and video. Studies of infants and toddlers suggest that videos have no language benefits for infant and toddlers.

Young children learn much better from real-life experiences than from watching videos. Moreover, excessive exposure to electronic media may have a negative effect on attention development, particularly for children younger than two (Kirkorian, Wartella, and Anderson 2008). Research indicates that the impact of electronic media on older children depends on the age of children, the context in which they use media, the content of the media, and the amount of time they spend with screens (Kirkorian, Wartella, and Anderson 2008; Campaign for Commercial-Free Childhood, Alliance for Childhood, and Teachers Resisting Unhealthy Children's Entertainment 2012).

By age three, children can benefit from well-designed, age-appropriate electronic media, especially when a caring adult views the program with the child and is actively involved in the child's experience Research emphasizes the importance of developmentally appropriate *content* being offered to children, whether on television or other interactive media software. Educational television programs that were designed around a curriculum with a specific goal to communicate academic or social skills were linked to various cognitive and academic enhancements, with potentially long-lasting effects (Fisch 2004). For example, research demonstrates a positive association between early exposure to *Sesame Street* television episodes and school readiness (Zill 2001). However, television and videos with entertainment content, particularly violent content, were associated with poor cognitive development and lower academic achievement (Kirkorian, Wartella, and Anderson 2008).

Studies of preschool children's computer play demonstrated that young children can use computers and software to support their learning. Children can understand, think about, and learn from their computer activity (Clements and Sarama 2008). Research has shown that in children's computer play with interactive media software there is a period of discovery, which is then followed by involvement, self-confidence, and creativity (Bergen 2008). Computer-play software can offer children various possibilities, including *practice* (self-directed repetition to achieve mastery), *pretense* (symbolic play in a "pretend to be" world), and *games* (challenge and competition, either with a peer, with oneself, or with an imaginary opponent) (Kafai 2006).

There is limited research on how educational computer software may enhance preschool children's academic-readiness skills. Some research suggests that software with an educational curriculum may have a positive influence on learning (Din and Calao 2001). Overall, studies indicate that, when used appropriately, technology and media can enhance children's cognitive and social abilities (Kirkorian, Wartella, and Anderson 2008). Even so, additional research is needed to confirm the positive outcome of technology on children's language and vocabulary, understanding of math concepts, self- regulation, and social-skills development (NAEYC and FRC 2012).[1]

Technology and Interactive Media in the Preschool Environment

Technology has many uses in early childhood settings. On any given day, teachers may use technology to support children's learning, to record and document children's development, to expand their own knowledge in different areas, to maintain ongoing communication with families, and to link homes with school. The focus in this chapter is on the use of technology and interactive media in pre school settings for the purpose of supporting and enhancing children's learning.

A growing number of early childhood educators use technology and interactive media in their programs as tools to support children's learning and development (Wartella et al. 2010). In a recent survey by the Fred Rogers Center (Wartella et al. 2010) about technology in the lives of teachers and classrooms, nearly 60 percent of early childhood teachers reported having a computer, and 45 percent have computers with Internet access in their classrooms. More than half of the early childhood teachers indicated that children should be introduced to technology in the classroom between ages three and four, and about one-third of the teachers reported using computers with children on a daily basis (Wartella et al. 2010). With the increasing interest and use of technology in preschool settings, early childhood educators need guidance on how to use technology and interactive media wisely and effectively. Several important questions come to mind:

- Which technology and media tools are effective tools for learning?
- In which domains of development can the use of technology be most effective?
- How do early childhood educators appropriately integrate technology and media into preschool settings?
- How can technology be used to support children's learning?



Figure 1.7: How programs will include technology in their curriculum is something that should be thoughtfully considered.[2]

A joint position statement issued in 2012 by the National Association for Education of Young Children (NAEYC) and the Fred Rogers Center (FRC) offers guidance. Based on research, the statement addresses both the opportunities and the challenges related to using technology and interactive media in early childhood programs. The following section presents key messages from the NAEYC/FRC position statement on technology. A set of strategies consistent with the approach articulated in the position statement is provided to guide administrators and teachers in integrating technology and interactive media into preschool programs. [3]

The Benefits and the Challenges of Using Technology and Interactive Media

Technology and interactive media have the potential to make many contributions to early childhood education. Technology can provide children with additional ways to explore, create, communicate, problem-solve, investigate, and learn. Computer technology, for example, offers young children a range of learning opportunities—from solving math problems to listening to interactive stories, taking a photo, recording a story, creating a digital book, making music, and engaging in other age-appropriate learning activities (Blagojevic et al. 2010). Many educational applications for young children are designed to help children develop skills and knowledge in specific domains, particularly in areas such as language, literacy, and mathematics (Buckleitner 2011). Such programs can provide individualized learning opportunities for children. In mathematics, computer programs present children with tasks, give feedback, and help young children develop concepts and skills in areas such as counting, number relationships and operations, sorting and patterning, measurement, and geometry (Clements and Sarama 2008; McCarthy, Li, and Tiu 2012). In language and literacy, computer software can enhance vocabulary learning (Segers and Vermeer 2008) and support learning of listening, speaking, writing, and reading skills (Guernsey et al. 2012). Dual language learners can also use computers to enhance their home language and acquire English (Blagojevic et al. 2010; Nemeth 2009).

The use of technology can also enrich the science curriculum. Cameras and recording devices provide valuable educational experiences by allowing children to take photos and videos to document objects and events and track changes in objects and materials. Digital microscopes allow children to save images of objects they explore and to share and discuss such images with their peers. Robotics with manipulative motors and gears engage young children in designing their own robotic creations, providing

them with opportunities both to be creative engineers and to explore abstract mathematical and science concepts in concrete ways (Bers 2008).

The use of technology in preschool settings also creates opportunities for equitable access to technology tools and interactive media experiences for children from different economic backgrounds, including children in families with few resources and little or no access to the latest technologies (NAEYC and FRC 2012). Furthermore, technology has many potential benefits in supporting inclusive practices for children with disabilities or other special needs (Mulligan 2003).

A variety of assistive and adaptive technologies (e.g., electronic communication boards, switch-activated toys, recordable devices) enhance children's participation and learning with peers. For example, a child who enjoys playing with bubbles can operate an electronic bubble-blower for other children to chase (Mistrett 2004). Another child can let a peer know which game she wants to play by indicating it on the electronic tablet that has photos taken by her teacher. By using assistive technology, early childhood educators can help children with disabilities or other special needs become more independent. Children with special needs can use technologies to support their ability to communicate and interact with others, move throughout the environment, manipulate objects, and participate in daily routines and educational activities.



Figure 1.8: Technology can help children with disabilities participate in the environment and communicate.[4]

Overall, effective uses of technology and interactive media can enhance and augment children's learning in different domains, extending children's access to new content. However, technology is effective only when used appropriately. Although the use of technology and interactive media provides programs with opportunities to enhance quality and optimize young children's development, early childhood educators should understand the limits of technology and be aware of the challenges of using technology and interactive media in the preschool environment. As stated in the NAEYC/FRC position statement, "Technology and interactive media are tools that can promote effective learning and development when they are used intentionally by early childhood educators, within the framework of developmentally appropriate practice, to support learning goals established for individual children" (NAEYC and FRC 2012, 5).

Technology and interactive media should only supplement, not replace, existing play-based materials and active play, engagement with other children, and face-to-face interactions with adults. Several professional and public health organizations have raised concerns about whether young children should have access to technology and screen media in early childhood programs (e.g., Campaign for a Commercial-Free Childhood, Alliance for Childhood, and Teachers Resisting Unhealthy Children's Entertainment 2012). The American Academy of Pediatrics recommends avoiding any media other than video-chatting until 18 months, limiting 2 to 5-year-olds to one hour per day of high quality programming, and for ages 6 and older, placing consistent limits on time and types of media. These recommendations are focused on preventing media use from displacing physical activity, hands on exploration, and face-to-face social interaction in the real world, which are critical to learning.

This chapter follows the recommendations of the NAEYC and the Fred Rogers Center (2012) and is aligned with the public health community in discouraging the use of screen media for children under the age of 24 months in early childhood programs. Such guidance for educators working with infants and toddlers may change in the future as more research on very young children's active use of interactive media and its effect on children's learning and development continues to emerge (e.g., Zack et al. 2013).

Monitoring the content of interactive media is as important as setting limits on the time young children spend with technology. Although there are valuable software, websites, and other forms of interactive media for young children, some have limited educational value or may include content that is not safe or appropriate for children. The challenge for early childhood educators is "to make informed choices that maximize learning opportunities for children while managing screen time and mediating the potential for misuse and overuse of screen media" (NAEYC and FRC 2012, 3). Educators should have the knowledge, skills, and experience necessary to select and use technology tools and interactive media that suit the age and developmental level of children and can be integrated effectively in the environment (NAEYC and FRC 2012).

The following guidelines identify key considerations for programs and teachers selecting, evaluating, integrating, and using technology in preschool programs.[5]

Selecting Technology and Interactive Media to Enhance Children's Learning

The rapid development of technology platforms, including computers, laptops, multitouch tablets, and other handheld devices, and the growing selection of available educational applications, Web sites, and software present educators with many choices for integrating technology into the preschool environment. However, technology and media-based products may vary widely in quality. Intentionality is important. Thoughtful, advance planning is essential for a responsible investment in technology in early childhood settings. Early childhood educators should apply their expertise and knowledge of child development in selecting appropriate technology and media for the classroom in the same way that they select any other instructional materials (NAEYC and FRC 2012). Educators should take the time to evaluate and select technology, to observe children's use of the materials, and to make appropriate adoptions based on their observations. The Fred Rogers Center (2012) proposed a framework for quality in digital media (FRC 2012), recommending that educators take into account the *child*, the *content*, and the *context* in the selection of digital media for young children.

- **Consider children's developmental level, interests, abilities, and cultural and linguistic backgrounds.** Teachers must be intentional in selecting the technology and interactive media they offer children in their classroom. In selecting appropriate technology and interactive media, educators make decisions that are informed by developmentally appropriate teaching practices, which means that early childhood educators consider the age, developmental level, needs, interests, linguistic backgrounds, and abilities of individual children in the group (NAEYC and FRC 2012).
- **Ensure equitable access to technology and interactive media experiences.** In selecting technology and interactive media, educators provide opportunities for all children to participate and have access to these learning tools. Educators should consider the cultural and linguistic backgrounds of the children in their classrooms. Technology resources can provide access to children's home language and culture, especially when there are no other ways to obtain such information (NAEYC and FRC 2012). For example, children can listen to electronic books in their home language, record songs and stories, and create digital stories in their home language and English (Blagojevic et al. 2010). Educators can collaborate with family members and colleagues who speak children's home language to gain access to appropriate interactive media in children's home language.

Materials and equipment selected for children with disabilities or other special needs should be evaluated. Adaptive and assistive technologies are available to support individual children in their classrooms. Programs should consider the level of technology necessary and the child's individual needs to ensure that the technology is best suited to the child's unique disabilities and to the demands of the environment (Mulligan 2003). Not all assistive devices are necessarily "high tech" or custom designed for a particular child. In fact, the Individuals with Disabilities Education Act defines an assistive technology device as any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability (Mistrett 2004).

- **Identify the underlying objectives of the technology.** Most electronic media targeted at preschoolers are intended to entertain rather than to teach. Technology in the preschool environment should be used only for educational activities. In evaluating any software programs, applications, or other forms of interactive media, educators should be able to identify the overall goals or purpose of the product: Is it to educate or to entertain? Is it interactive? Is it to develop particular skills, to introduce children to new information, or maybe a combination of these (FRC 2012; Campaign for Commercial-Free Childhood, Alliance for Childhood, and Teachers Resisting Unhealthy Children's Entertainment 2012)? Understanding the intent of a digital program and the learning goals for different children in the program should guide educators' intentional decisions in selecting materials of interactive media (FRC 2012).
- **Evaluate the quality of the content.** First and foremost, educators should evaluate the quality of the content to ensure that the use of such materials would not harm young children's overall development or well-being in any way (NAEYC and FRC 2012; FRC 2012). Interactive media products can be used as tools to fulfill the needs of individual children and to expand children's access to new content in areas of interest to them. In the selection process, program administrators and teachers should have information and resources regarding the nature of these tools and the implications for use with children. Program administrators and teachers should also have hands-on opportunities to explore and directly experience the technology that is being considered for use with children. Educators can apply their expertise and knowledge of child development to ensure that digital materials are developmentally and culturally appropriate for the children in the group. They should examine the educational content, format, and features and carefully consider any implicit messages communicated during the use of the software/application.

Some undesirable messages (e.g., stereotypes, negative images or actions) may be biased and fail to promote social and emotional understanding in the early years (Tsantis, Bewick, and Thouvenelle 2003).

- **Select technology and interactive media that support children's creativity, exploration, and problem solving.** In selecting activities with technology and interactive media, early educators should ask themselves: *Does it encourage children to explore, to think, to experiment and predict, to be creative, and to problem solve? Does it offer a range of experiences and a high level of interactivity? Is it open-ended or focused on skills?* Experiences with technology and other media that engage children in redundant practice and rote learning or involve passive use by children are not desirable. Effective technology and media empower children by giving them control, offering challenges through "leveled" experiences, and providing them with feedback and adaptive scaffolds (Clements and Sarama 2008).
- **Use the best available evidence in the selection process.** More research is needed to understand what young children are able to do with different digital devices and to assess the short- and long-term effects of new technologies on children's learning. Educators are encouraged to make their decisions about the quality of interactive media products based on the best available evidence for any given product (FRC 2012).[6]

Integrating and Using Technology in the Preschool Environment

Once the desired software or appropriate technology devices for the program are selected, educators should apply their expertise and knowledge of child development to make thoughtful decisions on how to introduce and integrate the selected forms of technology into the learning environment. The teacher's role is critical in ensuring that technology is implemented in ways that serve the teaching goals and support children's learning appropriately and effectively.

- **Technology and interactive media are used within the framework of developmentally appropriate practice.** Developmentally appropriate practice encourages hands-on exploration; empowers children to reflect, question, and create; and honors the value of relationships between children and the adults in their lives (NAEYC 2009). Professional knowledge of developmentally appropriate practice informs and guides decision making about how to introduce and integrate any form of technology and interactive media into early childhood programs. Technology and media should not replace preschool activities such as real-life exploration, physical activity, social interactions, outdoor and indoor play, and arts. Instead, they should be used as additional tools to encourage children's problem solving, exploration, and creativity. They can also support children's relationships with both adults and their peers and foster children's autonomy (NAEYC and FRC 2012; Donohue and Schomburg 2012; Nemeth and Simon 2012), particularly for some children with disabilities (Mistrett 2004).
- **Technology and interactive media are integrated into the environment, curriculum, and daily routines** (NAEYC and FRC 2012). True integration of technology and media into the preschool environment involves the use of different technology resources throughout the classroom. No period is set aside in the daily schedule for "computer time," when technology and media are used as isolated activities. Technology and interactive media are woven into the fabric of the day and are used as tools for learning, rather than as the focus or the goal of a learning activity. Technology is one of many ways to support curriculum goals and needs, and the program offers a balance of activities to support children's development in all domains of learning. In using a particular application or software, teachers should consider how it supports objectives for individual children in the group, how it fits into the classroom's current curriculum project or theme of study, and how it extends other activities in ways not possible otherwise (Nemeth and Simon 2012).
- **Time spent with technology and media is limited.** Setting limits on the time young children spend with technology and interactive media is important. As previously indicated, the public health community discourages the use of passive screen media for children under two years of age and recommends limited screen time daily for children older than two (American Academy of Pediatrics 2011). Some of the public health concern is that the overuse of media takes time away from other activities that involve physical exercise. Sedentary activities are potentially a risk factor for childhood obesity (Wartella and Heintz 2007). The position statement by the NAEYC/FRC points to the following recommendation in the *Early Childhood Obesity Prevention Policies:* "child care [and preschool] settings limit screen time to fewer than 30 minutes per day for children in half day programs or less than one hour per day for those in full day programs (Birch, Parker, and Burns 2011)." Teachers play a critical role in establishing clear boundaries on the use of technology and screen time in the preschool setting. They are also encouraged to share information with families on how to promote children's healthy use of technology at home (Campaign for a Commercial-Free Childhood, Alliance for Childhood, and Teachers Resisting Unhealthy Children's Entertainment 2012).
- **The use of technology and interactive media facilitates social interactions and relationship building.** Effective use of technology and interactive media in the classroom environment allows joint engagement, specifically viewing and participation by both children and adults and children and their peers (NAEYC and FRC 2012). Studies on the social dimension of preschool children's computer play found that preschoolers observe each other while playing, comment on others' actions, share and help

with software-related problems, and have conflicts over turn-taking (Heft and Swaminathan 2002). The computer and other digital devices should be located in spaces that allow for joint engagement of a group of children. Some children may select technology such as the computer because it is familiar or even as a way of avoiding interaction. Careful observation is needed to monitor the use of technology and determine individual appropriate use. Effective use of technology and interactive media can promote communication and collaboration among children (Wright 1994). It often provides the context for information sharing, language development, and collaborative decision making (Tsantis, Bewick, and Thouvenelle 2003). Tech-savvy children may also become computer mentors for their peers (Blagojevic et al. 2010).



Figure 1.9: This teacher is monitoring children using the computer together.[7]

- **Teachers provide support while children use technology and interactive media.** As with any learning activities, teachers play an important role in facilitating children's involvement with technology and media. The teachers introduce children to the computer or another device (e.g., digital camera, printer, touch-screen), and explain how it works. They observe what individual children do and learn about children's ability to use technology. Children vary in the ability to use technology and interactive media. Teachers also give children time to freely explore new technology tools, model appropriate use of technology, and help children become familiar with any new software activity. They establish rules and routines with children to guide appropriate handling and use of computer and other technological devices (Blagojevic et al. 2010; Campaign for a Commercial-Free Childhood, Alliance for Childhood, and Teachers Resisting Unhealthy Children's Entertainment 2012). During technology-related activities, teachers carefully observe and document what children do and assess children's learning. Teachers identify problems or opportunities for teachable moments, extending the media experience to other learning opportunities, and facilitating the experience through language-rich interactions. In addition, teachers determine when the child is ready to progress to the next level of knowledge or skill development (FRC 2012). They consider children's varying abilities to control and operate technology and media and support children's "technology-handling" skills, as needed. Teachers make appropriate adaptations, based on their observations, to promote positive outcomes for individual children.[8]

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CHAPTER OVERVIEW

2: The Importance of Play and Intentional Teaching

Learning Objectives

After reading this chapter, students will be able to

- Define Play
- Identify stages of Play
- Review Types of Play
- Discuss the importance of play in learning
- Understand the role of the teacher
- Identify ways teachers can foster play

2.1: Introduction
2.2: Why Play?
2.3: Types of Play
2.4: The Role of Play in Children's Learning and Development
2.5: Role of the Teacher - Being Intentional with Children
2.6: Developmentally Appropriate Practice

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2.1: Introduction

Children are born observers and are active participants in their own learning and understanding of the world around them from the very beginning of their existence. Today's children are active participants in their own learning, not just recipients of a teacher's knowledge. Developmentally Appropriate Practice (DAP), as outlined by NAEYC (National Association for the Education of Young Children), challenges early childhood professionals to be intentional in their interactions and environments to create optimal experiences to maximize children's growth and development. Under this umbrella of DAP, knowledge is based upon discovery and discovery occurs through active learning and abundant opportunities for exploration! Through a "hands-on" approach and using play as a vehicle, children will develop skills in domains necessary for positive growth and development.



Figure 2.1: Play is active learning. (Image by HaiRobe on pixabay)

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2.2: Why Play?

Play:

- Inspires imagination
- Facilitates creativity
- Fosters problem solving
- Promotes development of new skills
- Builds confidence and higher levels of self-esteem
- Allows free exploration of the environment
- Fosters learning through hands-on and sensory exploration

It is now understood that moments often discounted as “just play” or as “fiddling around” are actually moments in which children are actively learning (Hirsh-Pasek et al. 2009; Jones and Reynolds 2011; Zigler, Singer, and Bishop-Josef 2004; Elkind 2007.) While engaged in play, children explore the physical properties of materials and the possibilities for action, transformation, or representation. Children try out a variety of ways to act on objects and materials and, in so doing, experiment with and build concepts and ideas. This active engagement with the world of people and objects starts from the moment of birth.

This description of the young child as an active participant in learning informs the role of the teacher who works with young children birth to five. Early childhood teaching and learning begins with teachers watching and listening to discover how infants and young children actively engage in making sense of their everyday encounters with people and objects. When teachers observe and listen with care, infants and young children reveal clues about their thinking, their feelings, or their intentions. Children’s actions, gestures, and words illuminate what they are trying to figure out or how they attempt to make sense of the attributes, actions, and responses of people and objects. Effective early childhood teaching requires teachers to recognize how infants and young children actively search for meaning, making sense of ideas and feelings.



Figure 2.2: This teacher has an opportunity to discover how this child is understanding her experience.[1]

When teaching is viewed in this light, children become active participants alongside teachers in negotiating the course of the curriculum. Families who entrust their children to the care and guidance of early childhood teachers also become active participants in this process. Shared participation by everyone in the work of creating lively encounters with learning allows a dynamic exchange of information and ideas—from child to adult, from adult to child, from adult to adult, and from child to child. The perspective of each (child, family, teacher) informs the other, and each learns from the other. Each relationship (child with family, child with teacher, child with child, and family with teacher) is reciprocal, with each participant giving and receiving from the other, and each adding to the other’s learning and understanding.[2]

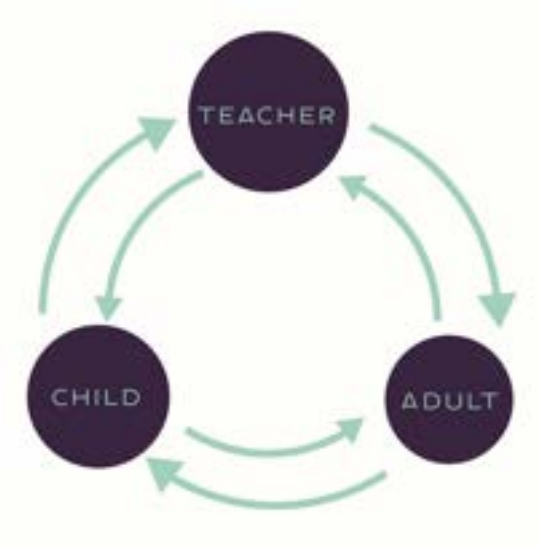

Figure 2.3: Each perspective informs the other.[3]

The *Educators' Guide to the Framework For School Age Care In Australia* discusses the benefits of play:

Play is a valued process, not only for enjoyment and leisure, but also for learning. Through play, children develop a sense of identity and an understanding of their social and cultural worlds. Children use play to explore and understand cultures, communities and friendships. We gain a lot through playing, not just as children, but also as adults.

Recent brain research has heralded the benefits of a stimulating play-based environment in encouraging the brain to grow and develop (Diamond 1988). Low stress levels and high engagement combine to nourish neural development. Research by Vandell and others (2005) demonstrates how school-aged care environments achieve this through the combination of high intrinsic motivation and challenge, effort and enjoyment. Lester and Russell (2009) identified the flexibility and plasticity of the brain, which develops through play and increases potential for learning later in life.

The intellectual and cognitive benefits of playing have been well documented. Children who engage in quality play experiences are more likely to:

- Have well developed memory skills and language development,
- Have the ability to regulate their behavior, leading to enhanced adjustment to school and academic learning.

Play also provides children with an opportunity to just 'be'.[4]

Pause to Reflect

What does it mean to just be? Consider a time either as a child or an adult, where you had an opportunity to just be. What facilitated the opportunity? What feelings did you experience? What might this mean for young children?

Educators observe stages of play experiences children navigate in their programs. Educators use these observations of children to plan for environments, set individual objectives and create appropriate curricular experiences.

Table 2.1: Piaget's Stages of Play[5]

Stage	Description
Functional Play	Exploring, inspecting, and learning through repetitive physical activity.[6]
Symbolic Play	The ability to use objects, actions, or ideas to represent other objects, actions, or ideas and may include taking on roles.[7]
Constructive Play	Involves experimenting with objects to build things; learning things that were previously unknown with hands on manipulations of materials.[8]
Games with Rules	Imposes rules that must be followed by everyone that is playing; the logic and order involved forms that the foundations for developing game playing strategy.[9]

In addition to the stages of play described by Piaget, there are also a variety of types of play children use when interacting within our ECE Programs.

References

[1] Image by the California Department of Education is used with permission

[2] The Integrated Nature of Learning by the California Department of Education is used with permission (pg. 5);

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2.3: Types of Play

Mildred Parten (1932) observed two to five year-old children and noted six types of play. Three types she labeled as non-social (unoccupied, solitary, and onlooker) and three types were categorized as social play (parallel, associative, and cooperative). The table below describes each type of play. Younger children engage in non-social play more than those older; by age five associative and cooperative play are the most common forms of play (Dyer & Moneta, 2006). [1]

Table 2.2: Parten's Classification of Types of Play[2]

Category	Description
Unoccupied Play	Children's behavior seems more random and without a specific goal. This is the least common form of play.
Solitary Play	Children play by themselves, do not interact with others, nor are they engaging in similar activities as the children around them.
Onlooker Play	Children are observing other children playing. They may comment on the activities and even make suggestions, but will not directly join the play.
Parallel Play	Children play alongside each other, using similar toys, but do not directly interact with each other.
Associative Play	Children will interact with each other and share toys, but are not working toward a common goal.
Cooperative Play	Children are interacting to achieve a common goal. Children may take on different tasks to reach that goal.

References

[1] Lifespan Development - Module 5: Early Childhood by Lumen Learning references Psyc 200 Lifespan Psychology by Laura Overstreet, licensed under CC BY 4.0

[2] Lifespan Development - Module 5: Early Childhood by Lumen Learning references Psyc 200 Lifespan Psychology by Laura Overstreet, licensed under CC BY 4.0

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2.4: The Role of Play in Children's Learning and Development

Consider the learning under way in the following excerpt volume 2 of the *California Preschool Curriculum Frame- work* (CDE 2011b, 15).

Imagine four young children—eager and engaged in play amidst an assortment of wooden blocks. They may appear to be "just playing"; however, upon closer inspection, this moment of play reveals a web of ideas, theories, and hypotheses under construction, as well as an energetic debate. We may observe that the children are negotiating how to connect the blocks to make roads that will surround their carefully balanced block structure. The structure has walls of equal height, which support a flat roof, from which rise 10 towers, built using cardboard tubes. Resting on each tube is a shiny, recycled jar lid, each one a different color. Two children are figuring out between themselves when to add or take away blocks in order to make a row of towers that increases in height. As we listen and watch, we witness the children building a foundation for addition and subtraction. To make each wall just high enough to support a flat roof, they count aloud the number of blocks they are using to make each wall, showing an emerging understanding of the math concept of cardinal numbers. When they hear the signal that lunch is about to be served, one child finds a clipboard with pen and paper attached, draws a rudimentary outline of the block structure on the paper, and then asks the teacher to write, "Do not mess up. We are still working on our towers."

In this example, children show evidence of emerging concepts of social studies through their construction of a small community from blocks; of physical science and mathematics as they experiment with how to make objects balance; and of reading, writing, and drawing as they request the teacher's help with making a sign to protect their work. They work together to create their play and cooperate in carrying out agreed upon plans. Each is fully engaged and manages his behavior to cooperate in a complex social situation. The concepts under construction in the minds of these children and the skills they are learning and practicing closely match several desired learning outcomes for children at this age. Anticipating the variety of concepts and skills that would emerge during the play, the teachers stocked the blocks/construction area with collections of blocks, props, and writing materials to support a full range of possibilities.

Young children's ways of learning require an approach to curriculum that allows them to build concepts and skills in integrated learning contexts. Such an approach supports children with analyzing a problem to discover a possible solution, experimenting with and testing ideas, exchanging ideas with others, thinking creatively and cooperating with others to reach a goal, and focusing their attention and organizing their behavior as they play with others. These skills and dispositions work together to give children a foundation that enhances development and learning in all the domains.[1]

Preschool programs use numerous strategies to support children's play, such as planning the learning environment, providing engaging and appropriately challenging materials, and being responsive to children's interest in engaging in play.

Through observations of children's play, teachers can deepen their appreciation of the value of play in early learning. For example, imaginary play is an important means of exploring ideas and social behavior and roles among preschool-age children. While older infants and toddlers engage in solitary imaginary play, such as feeding a stuffed animal or making a roaring sound while pushing a toy truck across the carpet, preschoolers engage with one or more peers in the more complex and elaborate form of imaginary play called "sociodramatic" play. In this type of play, children cooperate with one another to create a story and "script," assume various roles, figure out appropriate "costumes" and "props," and negotiate new ideas for play, such as, "I want to be a wolf, not a dog!"

Because imaginary play holds such rich potential for promoting children's cognitive, linguistic, social, and physical development, high-quality preschool programs recognize play as a key element of the curriculum. Children's spontaneous play is a window into their ideas and feelings about the world. As such, it is a rich source of ideas for curriculum planning (Lockett 2004). For example, if a teacher observes a group of children repeatedly engaging in imaginary play about illness or hospitalization, she or he might decide to convert the playhouse area into a veterinary clinic for a week or two. The teacher might also read children stories involving doctors, hospitals, getting sick, and getting well. The teacher's observations of children's resulting conversations and activities would suggest ways to deepen or extend the curriculum further. In thinking of ways to extend the curriculum, it will be important that teachers ensure that the materials used and themes built upon are culturally familiar to the children and value children's cultural heritage.

While involved in play, children are challenged to meet the language, problem- solving, and social competencies of their peers. When play is interesting and important to children, they are eager to learn the new vocabulary, new physical skills, and new social behaviors that will allow them to stay engaged in play (Jones and Reynolds 2011). Many three-year-olds, for example, have not yet

mastered socially appropriate ways to enter other children's play. Coaching by a sensitive, observant teacher on appropriate language for asking to join play can help a child overcome this hurdle, thereby opening a new area for learning.

When teachers regularly observe and document brief, subtle moments of children's learning through play, those records can help parents and others understand how useful and important play is in helping children to learn and grow. For example, a teacher might report a child's language and social development to the parent of a three-year-old: "I watched Sarah standing outside the playhouse area today. Instead of just watching the other children or wandering through their play without getting involved as she often does, she brought the children a book to read to the 'baby' in the family. They asked her if she wanted to be the big sister, and she said yes and joined right in. I have been thinking about ways to help her learn how to use her language to get involved in play with other children, but she figured out her own, creative way to join them."

During the preschool years, children grow markedly in their knowledge and skills in all areas of development. The dramatic increase in their emotional, social, cognitive, and language knowledge and skills occurs hand in hand with development of key areas of the brain, particularly the prefrontal cortex and its connections with the limbic system. Preschool-age children are naturally curious and driven to learn about the way the world works and often develop and test hypotheses through observation and experimentation. Children's learning and development in all domains progresses well when they are provided with appropriately challenging opportunities for play and exploration, with the support of skilled teachers who scaffold learning experiences.[2]

References

[1] The Integrated Nature of Learning by the California Department of Education is used with permission (pg. 15-16)

[2] California Preschool Program Guidelines by the California Department of Education is used with permission (pg. 32-33)

2.4: The Role of Play in Children's Learning and Development is shared under a not declared license and was authored, remixed, and/or curated by Jennifer Paris, Kristin Beeve, & Clint Springer.

2.5: Role of the Teacher - Being Intentional with Children

Teachers play a pivotal role in children's active construction of knowledge. They intentionally provide the environments and experiences that support children in actively building concepts and skills. The role of the teacher who works with young children birth to age five is to support children's active construction of knowledge. In a sense, early childhood teachers serve as research supports as the children sense, discover, and construct meaning about the world around them. Young children's natural impulse to learn by investigating (1) what things are like and what they can make them do, and (2) how people create and share meaning shapes the role of the early childhood teacher. The early childhood teacher is responsible for: offering children well-stocked play spaces where they can construct concepts and ideas, preferably in the company of friendly peers; designing daily routines that invite children to be active participants and to use emerging skills and concepts; supporting children's learning through interactions and conversations that prompt using language and ideas in new ways and that promote sharing meaning with others.

In carrying out those responsibilities, teachers create contexts in which young children can:

- Wonder about what things are like and what they do
- Investigate a variety of ways of relating one thing to another
- Invent problems and solutions with others; construct, transform, and represent with the materials at hand
- Create and share meaning, and collaborate in learning
- Try new challenges and practice emerging skills
- Express their emotions, feel secure to explore, and regulate their emotions and behavior
- Manage conflicts in ways that support the development of social skills
    - Advocating for one's own needs, safety, and feelings
    - Learning how to connect with their peers in mutually beneficial ways
    - Learning how to walk away or disengage from their peers when they feel the need to
    - Learning how to cope with feelings of rejection or exclusion. And in turn, learning how to seek out positive relationships, rather than dwelling on unsatisfying ones.

Early childhood teachers see and support children as scientists and thus design the play environment to serve the children's inquisitive minds. Teachers also provide the materials children need to construct concepts and ideas and master skills in the natural context of play. Children learn from opportunities to discover materials that they may be seeing for the first time and need time to explore and get to know the properties of these materials. It means offering children materials that they can organize into relationships of size, shape, number, or function and time. Children can investigate what happens when they put these materials together or arrange them in new ways, experiencing the delight of discovering possibilities for building with them, transforming them, or using them to represent an experience.

Early childhood teachers also design the daily routines as rich opportunities for children to participate actively and to use their emerging skills and ideas in meaningful situations. Equally important are the ways in which teachers use interactions and conversations with children to support learning. Many interactions occur spontaneously, with the teacher being responsive to an interest or need that a child expresses. Many other interactions focus on co-creating or co-constructing meaning as the teacher and a child or small group of children focus on a specific topic or activity.

Some interactions may include providing guidance to help children learn to regulate their emotions and behavior or may involve an intervention in which the teacher helps children explore how to negotiate a solution to a conflict.

Other interactions and conversations teachers have with children are more predictable. Teachers anticipate and organize some interactions and conversations as group discussions, in order to prompt children's thinking and understanding. Sometimes these groups are small, and sometimes, at preschool age, they are somewhat larger. Teachers also guide some activities in a context that allows children to encounter new information and build skills. All interactions are embedded in contexts in which the children are actively engaged in exploring their own developing skills, learning from each other, and acquiring knowledge.[1]

While play occurs naturally, teachers must consider the following responsibilities when facilitating appropriate and purposeful play:

Spaces (See further detail in Chapter 5)

- are safe places to explore
- reflect the mission and core values of the program
- include culturally sensitive materials to explore

- include open-ended materials for multi-use

Routines

- Are consistent and predictable
- Provide ample time for unstructured play to occur (recommendation is 45 minutes minimum) If children aren't provided enough time to become immersed in play, they will be less likely to engage enough to receive the benefit of the activity.

Interactions

- Stimulate creativity by asking open-ended questions or reflective observations
- Respect individual differences in play and interactions
- Encourage Cooperation

The *Educators' Guide to the Framework For School Age Care In Australia* elaborates on intentionality:

To be 'intentional' is to act purposefully, with a goal in mind and a plan for accomplishing it. Intentional acts arise from careful thought and in consideration of the potential effects. For example, when offering dress-ups, educators provide a wide selection. This is intentional in the following ways:

- Not having enough may be challenging to children who find sharing and waiting difficult and could lead to unnecessary conflict over the limited resources.
- If only one or two children could dress up, it would limit opportunities to stimulate rich group play.
- If the dress-ups were all the same, respect for diversity and choice are not promoted.
- Providing variety allows children to mix and match and experiment through varied role play.
- Providing variety encourages children to share, collaborate and negotiate.
- Providing educators who are able to interact with the children fosters skill development in this area (through scaffolding).

Intentionality is about educators being able to explain what they are doing and why they are doing it. . . Educators purposefully (and perhaps in collaboration with children) establish routines, set up the environment, select resources, and appoint educators to work with the children. This approach reflects the educator's understanding of the context, individual personalities and group dynamics.

Educators who are deliberate and purposeful in what they do:

- Promote children's learning through worthwhile and challenging experiences and interactions which foster high-level thinking
- Seize opportunities during experiences and conversations to extend children's thinking and learning
- Model and demonstrate active listening skills
- Utilize varied communication strategies, such as open questions, explanations, speculation and problem-solving
- Move flexibly in and out of various roles and draw on different strategies as the context changes
- Draw on contemporary theories and research for their knowledge and practices
- Monitor children's wellbeing, life skills and citizenship, and use the information to guide program planning
- Monitor children's needs and interests and incorporate them into program planning
- Identify 'teachable moments' as they arise and use them to scaffold children's learning and development.

As educators it is always good to reflect on your own childhood:

- What were your favorite play spaces as a child?
- What did you enjoy doing?
- How might you incorporate some of your childhood play ideas into your setting?
- What role did the adults play when you were a child?
- What are your beliefs about play?
- How do you think play might have changed over the past forty years?
- What impact do you think this might have on children and the adults of the future?[2]

Pause to Reflect

"First Day!"

Shortly after completing my ECE degree, I had been hired as Preschool Teacher for a New Corporate Sponsored Early Childhood Education Program. With three weeks to prepare the environment and complete my training, before the children

were to start. I spent hours organizing (and reorganizing multiple times) the materials, learning areas and extensively planning for our first day!

The Friday prior to the opening of the program was pretty standard, all of the children's files were up to date, tours had occurred, environment was set and the lesson plans were carefully examined and neatly posted. Everything was in place- Perfection!

With joyful excitement and a little anxiety we welcomed 8 new children to our program Monday morning. As the children trickled in, one by one, their eyes focused on the newness of the environment. My preconceived ideas and expectations were shattered as I stood and observed the children moving quickly from one area to the next and touching everything in sight. I had erroneously thought they would sit and play with puzzles, paint at the easel that was so aesthetically set up or build with the blocks that were strategically placed on the carpet.

Instead, the children avoided those areas and aimlessly walked around the classroom, looked through the cubbies, examined each shelf loaded with learning materials. One item captured their attention more than any other- a water dispenser with little Dixie cups, placed at their level. Each child was fascinated by the ability to press the button and see water come out.

Much of the day was spent tirelessly cleaning up the water and trying to redirect the children to play with the toys that were out rather than the water dispenser. At the end of the day, when the children left, the teachers sat and reflected on what worked and what didn't work during the day. In unison, we all said the water was an issue and we should remove it.

Then from across the room, our wise director intervened. He challenged us. It appeared to him that we should focus on the children's interest in the dispenser. It provided children a new sense of independence (they could access their own water when they were thirsty), and they were practicing important problem solving skills and the concept of cause and effect while at the same time mastering the fine motor skills of pushing the button. The children were learning and mastering their new environment through active exploration and using play as a technique to acquire new knowledge about the water dispenser. The children were most excited to come back the next day and show their parents the water dispenser and how to operate it.

We changed our curriculum to additional activities to enhance this interest such as using measuring cups to fill and dump water using our small water table. After a week, their excitement for the dispenser dwindled and it became routine and the children discovered the easel, the blocks and other materials in their environment. I stop sometimes to recall this day and know that it wasn't what I taught the children, but rather what the children taught me about how they want to learn.

Reflect

Consider an experience when you witnessed a child exploring a toy, learning material, or a play space. Was there anything about the observation that surprised you? In which ways, could you consider intentionality in relationship to the observation. What types of play or stage did you witness during the observation?

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[1] The Integrated Nature of Learning by the California Department of Education is used with permission (pg. 19-21); Content by Clint Springer is licensed under CC BY 4.0

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2.6: Developmentally Appropriate Practice

According to the National Association for the Education of Young Children's Position Statement, "The core of developmentally appropriate practice lies in…intentionality, in the knowledge that practitioners consider when they are making decisions, and in their always aiming for goals that are both challenging and achievable for children." In order to do this they must use developmentally appropriate practice (DAP). DAP includes three areas of knowledge:

1. Age-appropriateness – using what is known about child development and learning in general
2. Individual-appropriateness – using what is known about each child as an individual to be responsive to each child
3. Social- and cultural-appropriateness – using what is known about the social and cultural context in which children live[1]

Head Start has guiding principles that reflect developmentally appropriate practice by an intentional teacher.

- Each child is unique and can succeed
- Learning occurs with the contexts of relationships.
- Families are children's first and most important caregivers, teachers, and advocates.
- Children learn best when they are emotionally and physically safe and secure.
- Areas of development are integrated, and children learn many concepts and skills at the same time.
- Teaching must be intentional and focus on how children learn and grow.
- Every child has diverse strengths rooted in their family's culture, background, language, and beliefs.[2]

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SECTION OVERVIEW

Section II: Developing Curriculum to Support Children's Learning

3: The Cycle of Curriculum Planning

3.1: Planning Happens in a Cycle
3.2: Partnering with Families in Curriculum Planning
3.3: How It's All Connected
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CHAPTER OVERVIEW

3: The Cycle of Curriculum Planning

Learning Objectives

By the end of the chapter, you should be able to

- Explain how observation is the basis for curriculum planning
- Describe how to effectively document observations
- Connecting reflection to planning curriculum
- Discuss how the cycle of planning begins again as curriculum is implemented
- Summarize how curriculum planning occurs in a cycle
- Relate the importance of partnering with families

3.1: Planning Happens in a Cycle
3.2: Partnering with Families in Curriculum Planning
3.3: How It's All Connected
3.4: Conclusion

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3.1: Planning Happens in a Cycle

To begin to understand how to plan effective, developmentally appropriate curriculum for children, we must look at the context in which that planning should happen. Planning everything, from the flow of the day, to how teachers design and stock the classroom environment, to the way the spontaneous (unplanned) experiences of children are recognized and valued, to the experiences teachers thoughtfully plan and intentionally implement, happens in a continuous cycle. As we will discuss in this chapter that cycle begins with observing and continues through documenting what was observed, reflecting on what it means and how to plan to best support children, and then implementing those plans, before returning back to observing.[1]

Planning curriculum for young children begins with teachers discovering, through careful listening and observation, each child's development. Observation is an essential skill for a teacher. When teachers mindfully observe, they discover how individual children make meaning in everyday moments of play and interactions and how to deepen their relationships with children. Observing for the purpose of assessing individual children's learning means carefully watching and listening, with thought and reflection. In doing so, teachers find the knowledge, awareness, and strategies that individual children have formed during their experiences. It may be evidence that pertains to individual children's emotional, social, cognitive, or physical development. If the evidence is clear and significant, teachers can preserve it through, for example, a note, a photo, or a sample of a child's work.

Consider this example in which teachers found various ways in which the children's engagement in learning about snails related to the developmental profiles of different children:

As the children's interest in the snails continued, the teachers looked for ways to expand learning opportunities and integrate them into the multifaceted experience. The teachers also reviewed individual children's developmental profiles to be mindful of children's developmental progress in different areas. In addition to the many counting opportunities in the environment, the teachers decided to integrate counting into the children's exploration of snails. Younger children who were making progress with learning to count objects between five and ten were invited to set up a specific number (less than ten) of trays and snails.

Before the children started, the teachers reminded them of an earlier conversation about how to care for snails. In response, one of the children asked to show the others how to handle the snails gently. (Learning about counting was happening at the same time as learning about controlling the impulse to handle other creatures roughly instead of being gentle with them.) Teachers suggested to other children who were continuing to make progress with counting to count out a quantity of sticks, bark, or leaves greater than ten. Other children were asked to divide the snails evenly between the trays. The children kept saying to themselves, "Be gentle," and handled the snails with great care.



Figure 3.1: Handling the snail carefully.[2]

As teachers observed each group, they helped children develop mathematical thinking by prompting them and asking questions. For example, at one table, a teacher noticed that children were counting some sticks twice. She said, "I wonder what would happen if we put each stick on the other side of the tray after counting it." The children tried out this idea. Teachers noted children's efforts and placed the notes, with the date recorded, into the children's individual portfolios to be used as evidence for later reference when considering developmental progress relating to number sense and impulse control.

As teachers observe children's play and interactions, they discover ways to support children's learning. Ideas for the next steps in curriculum planning emerge as teachers reflect on how they might extend or expand children's thinking, language, and interactions. Observation, reflection, and documentation in the moment simultaneously launch an ongoing assessment of each child's progress in learning as well as the curriculum planning cycle.[3]

Here is a visual representation of the Curriculum Planning Cycle



Figure 3.2: The Curriculum Planning Cycle.[4]

Let's explore each part of the cycle.

Observe

Observation means being present with children and attentive as they play and interact with others and the environment. This mindful kind of presence is different from participating in children's play or directing their play. Whether for one minute or five, an attentive, mindful presence means waiting to see what unfolds in order to gain a complete picture of children's play. A teacher who observes children as a first step in supporting learning discovers small scientists at work—experimenting, comparing, making assumptions, evaluating assumptions through their actions. Over time, children build mastery of a wide range of concepts and skills. The vignette about the snail exploration illustrates the role of the teacher as observer:

During small-group time with the snails, the teacher noticed a child who had been reluctant to hold a snail. This child had a visual impairment. As the teacher gently placed a snail on this child's hand, two children watched and listened as the teacher commented, "He's sticking his head out now, and he's turned toward your fingers. Can you feel him crawling toward your fingers?" The other children who had been watching intently began to repeat the teacher's encouraging words, saying, "He's sticking his head out. He's going toward your fingers!"

The teacher wrote down her observations and added an interpretive note that the children's behavior may be a growing sign of empathy as measured by the DRDP, and the other child's willingness to hold the snail, a growing sign of curiosity and initiative, also a DRDP measure.[5]

Observation Happens Through Lenses

It takes practice to become a good observer. An important aspect of being a good observer involves becoming aware of what is noticed and how observations are interpreted. Children may be influenced by many things. Culture, temperament, personal experiences, professional knowledge, and even community values and messages in the media affect how teachers see and experience children. These "lenses" through which teachers observe and interpret are at work even though they may not always be conscious of them.[6]

The Importance of Accuracy

Observations about children should be factual and objective to be useful and meaningful. Teachers should document only what they see and hear (the facts) and avoid using words that communicate judgment about a child's feelings, intentions, and motivations; are ambiguous and open to interpretation; or describe an opinion. One way teachers may think about their own objectivity is to ask themselves: Am I describing this child's behaviors and interactions in the same or a similar way that someone else observing this child would describe them?

Interpreting the meaning of children's behaviors and interactions is important, and impressions, feelings, and insights about children are extremely valuable to the individualizing process. However, teachers first need accurate, factual information in order

to draw conclusions later on about children's skills, behavior, interests, and needs.[7]

Pause to Reflect

Think about yourself as an observer. What do you think will come most easily to you? What do you think will be more challenging?

Document

Documenting means gathering and holding evidence of children's play and interests for future use. A common form of documentation in early childhood settings is a written note, often referred to as an observation anecdote. Anecdotal notes, along with other forms of documentation, in particular photos, video recordings, and work samples, serve a dual purpose. First, they preserve a teacher's observations of children's expressions of feelings, their thinking, and their learning. These documentations are guides to the next steps in day-to-day curriculum planning. And second, anecdotal notes and other evidence can be used to support a teacher's periodic assessment of a child's progress. An episode during the snail exploration highlights the dual purpose of documentation:



Figure 3.3: Holding a snail.[8]

During their initial encounters with the snails, the children asked questions and made comments about the snail shells, the way the snails moved across the tray, and what the snails ate. Although several children were reluctant to pick up the snails, others were challenged by having to wait. The teachers recorded children's distinct responses, writing down significant elements of what children said or did. For example, for a child with identified special needs related to self-regulation, a teacher noted: "Jasmine pushed aside Yuri in order to pick up the snail crawling off the tray. Yuri stumbled, fell, and began to cry. Jasmine continued to focus on the snail, saying nothing to Yuri." For the teacher, Jasmine's behavior was significant. This anecdotal note provided some evidence of Jasmine's struggles with impulse control. It added to the growing evidence that Jasmine was still developing impulse control and empathy. Later, as the teacher shared her observation with her co-teacher and with Jasmine's father in a conference, they discussed how the small group work around keeping the snails safe might support Jasmine as well as other children in reading cues of others and in thinking before acting in order to keep people safe.[9]

Documenting What is Observed

Teachers must be intentional about capturing and recording what children do and say by setting up a system for carrying out observations. There is no one right way to do this. Systems will look different from program to program, and even classroom to classroom. Additionally, observation systems are not static; they should be revisited as teachers become more proficient in observing children and as children grow and develop. However, there are some general strategies that should be considered when developing a system.

- Plan times to observe each child regularly and over time. This should include observing children
  - Across settings (e.g., indoor and outdoor) and times of the day (morning, afternoon)
  - During routines (e.g., mealtimes, naptime, arrival/departure, transitions)
  - As they engage in spontaneous play experiences and planned activities and experiences
  - As they interact with other children and adults.



Figure 3.4: If this teacher has materials nearby, she can capture details on a great conversation the children are having.[10]

- Plan for spontaneous observation opportunities, too.
- Have materials at hand to capture unexpected, but valuable observations of children.
- Decide how to organize and store observations with the system that works best for the individual teacher or teaching team. For example:
  - A file folder for each child kept in hanging files in file cabinet, large box, or crate
  - Index cards in file box with a section for each child
  - A 3-ring binder notebook for each child
  - An accordion folder for each child
  - Hanging shoe bag, with pockets labeled for each child
- Decide how often to review observations. A system for using the valuable date from observations is an important part of the curriculum cycle. Some curriculum planning may be easy to implement based on just casual observation. But deeper analysis of observation of individual and groups of children will likely lend valuable insight in what teachers can plan to support optimal development.
- Include families in this process. Invite them to share what they observe about their children verbally, through pictures and photographs, or in writing.[11]

Portfolios

One way to document children's development and learning are portfolios. Portfolios are collections of children's work, notes and photographs from families, checklists and other print recording tools, and other items that document what children know and can do. Written observation notes, photos, and audio and video files may be included as part of the portfolio. Portfolios may be physical, virtual (some online assessment tools allow users to input observation notes and upload photos, video, and audio files for each child), or a combination of both.

To be useful, portfolio items should:

- Be dated and filed in order
- Represent various parts of the program (e.g., routines, play experiences, transitions)
- Present a balanced view of the child's growth in all developmental domains.

Over time, the portfolio collection serves as a concrete record of the child's progress toward individual goals as well as the program's school readiness goals, so it should be reviewed regularly with families. Teachers should explain what they include in the portfolio and why they include it. They should also actively encourage families to contribute information and items to their child's portfolio.[12]

Pause to Reflect

As you think about how to document children's learning, what systems do you find most appealing? Which do you think would be most effective? Which are least appealing or do you think would be least effective?

Reflect & Plan

As teachers reflect on children's play, they discover possibilities for designing curriculum to sustain, extend, and help children's play to be more complex and, consequently, support the children's continuing learning.[13]

Teachers ask themselves questions about what the information they have documented in observations of children says about the children's development, interests, and needs. The answers to these questions lead to individualizing care and learning. There are many questions that teachers may ask themselves. For example:

- What developmental skill or activity does the child appear to be working on?
- What strategies does the child use to play with different toys?
- Does the child engage with objects or people differently than a month ago? What has changed? What has not changed?
- Do my actions/the actions of other adults who interact with the child affect the outcomes of the child's experience? How so?
- How does the information relate to goals for the child? The family's goals? The program's school readiness goals?
- What other information do I need?
- What questions do I have for the child's family?

It is during the reflective process that interpreting the meaning of children's behaviors and interactions becomes important. These interpretations and insights give rise to each child's story. Each child's story informs responsive practice.

Teachers use what they know about each child to

- Adapt the environment
- Modify the daily schedule and/or routines
- Make decisions about how to guide the children's learning based on what the child knows and can do as well as what the child is ready to try.[14]

That process of reflections then informs possible next steps in the curriculum. Possible steps might include adding materials to interest areas, books to read with large or small groups, activities to do in small groups, or a topic to investigate over time with the children. With clear ideas or objectives in mind, teachers plan curriculum that includes strategies to enhance the learning of all children in a group, as well as strategies to support the learning of individual children. Here is how reflection, discussion, and planning worked in the snail exploration:

While the children were exploring snails, teachers met each week to reflect and plan for the next steps in the children's explorations. They decided to schedule time for small groups of children to explore the snails in a more focused way, hoping to extend the children's learning and add complexity. The teachers planned a series of walks that would allow all the children to find snails in natural habitats.[15]



Figure 3.5: Teachers meeting.[16]

Pause to Reflect

Think back to something in your childhood that you were passionately interested or engaged in that someone observing you could have documented. What questions could your teachers have asked themselves about your experiences? How could they have planned?

(If it's easier or more relevant, you can think of a child you know and consider what you can ask yourself and plan around what you know about that child.)

Implement

Once a plan is written, teachers implement it. While implementing a plan, teachers observe, reflect, and document. The curriculum-planning cycle begins again (or continues) as teachers watch to discover how children respond to the planned curriculum and how children show evidence of their development during the planned learning encounters. Teachers often approach this step with a sense of wonder, for they may be surprised and amazed by the children's responses.

To hold the responses in memory, teachers may record notes, take a photo, or label, date, and keep a work sample, all of which they can later review to assess the impact of the curriculum plans. The evidence collected will help teachers to come up with ideas for supporting and assessing the children's learning. Teachers might ponder the following questions:

- Are children responding as predicted, or were there surprises?
- What do the children's responses tell us? How might we name the children's interest(s) or intention(s)? What concepts and ideas are the children forming within their play?
- How might children who are English learners and children who speak English collaborate in small groups to learn from one another?
- Are children showing evidence of progress on any of the measures of the DRDP?

Here is what happened when the teachers implemented their idea of going on walks with the children to find snails in natural habitats:

Before going on their snail hunt, a small group of children gathered on a blanket with the teacher. Each child was provided with a clipboard with paper for taking "notes" while the teacher explained how the walk would be a way to find snails that lived outside their classroom. Some children pretended to write while the teacher talked, while others drew pictures of snails. In this group, teachers included two children who were fluent in Spanish and learning English. The teachers anticipated much conversation among children during the search for the snails and wanted to give these children a chance to converse in their home language as well as to share experiences with peers who spoke only English.



Figure 3.6: Children watching the teacher write.[17]

Before heading off on the hunt, the teacher suggested, "Let's estimate. How many snails do you think we will find? Each of you can guess." On a large sheet of paper that the children could easily see, she wrote each child's name, saying each letter as she did so, and next to each name, the number guessed by that child.

Armed with magnifying glasses, the children went off to collect snails. There were many discoveries along the walk, not just snails. As children found snails, they carried them to a large examination tray set up on a table. Some children took a break from their snail search to examine, touch, and draw the snails already collected. At the end of the hunt, the children lined up the snails on a small log and counted them. The teacher suggested that they compare the number they counted with their estimates.

Before returning to their classroom, the children put the snails back into their natural habitats. The children were excited about sharing their experiences with other teachers and peers when they returned.

The teachers examined and reflected on what they saw in the children's writings and drawings on the clipboards. They decided that some of the work samples were significant in showing how individual children were developing an idea, concept, or skill. They filed those samples in the children's portfolios as evidence of developmental progress.[18]

Pause to Reflect

What happens when implementation goes differently than expected? What would have happened if the children had discovered and become fascinated with dandelions on their hunt for snails (and subsequently lost interest in the snails)? Does curriculum have to go as planned? Why or why not?

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3.2: Partnering with Families in Curriculum Planning

As the snail-exploration vignette illustrates in several places, teachers also include the children's families in supporting children's learning. Teachers find it particularly helpful to share documentation of children's learning with children's family members. When families and teachers reflect together on documentation of children's play and learning, family members offer insights into the children's behavior and ideas, as well as share expectations of their children at home or in the community. Teachers also provide resources to families in order to bridge children's experiences in preschool with experiences at home and in the community. For example, the teachers used the children's interest in the snails to support family members' participation in creating learning opportunities in the following way:

During the snail exploration, teachers posted near the entry a note with a photo of children exploring snails at the science table.



Figure 3.7: Taking a closer look at the snails.[1]

They suggested to families to consider doing a snail hunt on the way to school, in a park, or in a yard. A stack of copies of the snail diagram with the words eyes, tentacles, and shell written in Spanish, English, and Russian was available for family members to take with them.[2]

References

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3.3: How It's All Connected

The snail vignette illustrates how teachers can help children make connections and thereby make meaning. This exploration allowed children to investigate and learn about creatures from the outdoor environment in the classroom. In doing so, the children were able to make meaning about snails' natural habitats while encountering opportunities to engage in integrated learning in every domain.

Young children's experiences at home and in their communities are a powerful source of connections. Teachers nurture children's appetites for learning and making meaning by building upon the knowledge children bring to the preschool setting. For example, children may come to preschool with knowledge of many family stories. Their teachers may have observed that the children used the stories in the dramatic play area. However, the children did not seem to be aware that their stories could be written down and then read by someone else. In such a case, teachers can partner with families to create a story dictation study. In planning the snail exploration, the teachers and family members may ask:

- Would the children be interested in seeing their family stories written down, and would such experiences help them increase their awareness of print in the world around them?
- What strategies or adaptations might help a child who is nonverbal to become engaged in family storytelling?
- Would children in the group who are English learners make the connection to print more easily if they can dictate their stories in their home language to family members or community volunteers?
- What topics may be interesting and engaging for children to dictate? What kinds of questions would help individual children, English learners, or children with diverse cultural experiences to get started with dictation?
- How might the activity be adapted to accommodate children with disabilities or other special needs?
- Would asking children about how their family helps them get ready for preschool encourage them to dictate a meaningful experience?
- Would a child who likes to draw pictures have an easy time dictating a story about a drawing?

Teachers can explore these questions and see where the exploration leads.[1]

References

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3.4: Conclusion

When teachers embed children's learning into their lives, into contexts that they have experienced, teachers make everything more comprehensible for them. Teachers also engage children's emotions, making the experience both cognitive and pleasurable. The key is to find out which connections are meaningful for each individual child. When teachers discover what may be personally meaningful for a child, there is a good chance of fully engaging that child in making meaning and learning.[1]

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CHAPTER OVERVIEW

4: Developing Curriculum for a Play Centered Approach

Learning Objectives

At the end of this chapter, students will be able to:

- Identify curriculum models for developing curriculum
- Connect child development theories to the various models
- Explore samples of a variety of forms for planning (Specific Activity Plan, weekly environmental plans, project plans, etc…)

Review vignettes of classroom experiences to inspire development of curriculum

4.1: Curriculum Models
4.2: The Dynamic Process
4.3: Contexts for Written Plans
4.4: Learning Experience Implementation Plan Sample
4.5: Creating Effective Curriculum

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4.1: Curriculum Models

Curriculum Models provide a framework to organize planning experiences for children. In previous chapters, the planning cycle has been introduced and in accordance with best practices, the models identified in this chapter represent a variety of ways to use the planning cycle within these models.

Bank Street Model

Lucy Sprague Mitchell founded Bank Street, an Integrated Approach also referred to as the Developmental-Interactionist Approach.

In this model, the environment is arranged into learning centers and planning is organized by the use of materials within the learning areas (centers).

- Art
- Science
- Sensory/Cooking
- Dramatic Play
- Language/Literacy
- Math/Manipulative/Blocks
- Technology
- Outdoors: Water and Sand Play

The Bank Street Model of curriculum represents the ideology of Freud, Erikson, Dewey, Vygotsky, and Piaget. This model draws upon the relationship between psychology and education. By understanding developmental domains and creating interest centers with materials that promote specific areas of development, children's individual preferences and paces of learning are the focus.

"A teacher's knowledge and understanding of child development is crucial to this approach. Educational goals are set in terms of developmental processes and include the development of competence, a sense of autonomy and individuality, social relatedness and connectedness, creativity and integration of different ways of experiencing the world" (Gordon).[1]

Creative Curriculum Model (Diane Trister Dodge)

In the Creative Curriculum model, the focus is primarily on children's play and self-selected activities. The Environment is arranged into learning areas and large blocks of time are given for self-selected play. This model focuses on project-based investigations as a means for children to apply skills and addresses four areas of development: social/emotional, physical, cognitive, and language.

The curriculum is designed to foster development of the whole child through teacher-led, small and large group activities centered around 11 interest areas:

- blocks
- dramatic play
- toys and games
- art
- library
- discovery
- sand and water
- music and movement
- cooking
- computers
- outdoors.

The commercial curriculum provides teachers with details on child development, classroom organization, teaching strategies, and engaging families in the learning process. Child assessments are an important part of the curriculum, but must be purchased separately. Online record-keeping tools assist teachers with the maintenance and organization of child portfolios, individualized planning, and report production.[2]

High Scope Model (David Weikert)

The High Scope Model focuses on developing learning centers similar to the Bank Street Model and emphasizes key experiences for tracking development. The key experiences are assessed using a Child Observation Record for tracking development and include areas of:

- Creative Representation
- Initiative
- Social Relations
- Language and Literacy
- Math (Classification, Seriation, Number, Space, Time)
- Music and Movement

The High Scope Model also includes a "Plan-Do-Review" Sequence in which children begin their day planning for activities they will participate in, followed by participation in the activities and engaging in a review session at the end of the day. Teachers can use this sequence format to help children learn how to organize choices of activities and to reflect upon what they liked or would do different at the end of the day. The High Scope Model reflects the theories of Piaget, Vygotsky and Reggio Emilia by way of emphasis on construction of knowledge through hands-on experiences with reflection techniques.

Montessori Approach (Dr. Maria Montessori)

The Montessori Approach refers to children's activity as work (not play); children are given long periods of time to work and a strong emphasis on individual learning and individual pace is valued. Central to Montessori's method of education is the dynamic triad of child, teacher and environment. One of the teacher's roles is to guide the child through what Montessori termed the 'prepared environment, i.e., a classroom and a way of learning that are designed to support the child's intellectual, physical, emotional and social development through active exploration, choice and independent learning.

The educational materials have a self-correcting focus and areas of the curriculum consist of art, music, movement, practical life (example; pouring, dressing, cleaning). In the Montessori method, the goal of education is to allow the child's optimal development (intellectual, physical, emotional and social) to unfold.

A typical Montessori program will have mixed-age grouping. Children are given the freedom to choose what they work on, where they work, with whom they work, and for how long they work on any particular activity, all within the limits of the class rules. No competition is set up between children, and there is no system of extrinsic rewards or punishments.[3]

Waldorf Approach (Rudolf Steiner)

The Waldorf Approach, founded by Rudolf Steiner, features connections to nature, sensory learning, and imagination. The understanding of the child's soul, of his or her development and individual needs, stands at the center of Steiner's educational world view.

The Waldorf approach is child centered.[4] It emerges from a deep understanding of child development and seeks to support the particular developmental tasks (physical, emotional and intellectual) children face at any given stage. Children aged 3–5, for example, are developing a keen interest in the world, supported to a large extent by freedom of movement and must be supported to follow and deepen their curiosity through the encouragement of their sometimes endless asking of questions (Van Alphen & Van Alphen 1997). This approach to supporting children's naturally blossoming curiosity, rather than *answering* the teachers' questions. At this stage, children's play becomes increasingly complex, with children spontaneously engaging in role plays, as they construct and act upon imaginative situations based on their own experiences and stories they have heard. Thus, in Waldorf schools, ample time is given for free imaginative play as a cornerstone of children's early learning.[5]

The environment should protect children from negative influences and curriculum should include exploring nature through gardening, but also developing in practical skills, such as cooking, sewing, cleaning, etc. Relationships are important so groupings last for several years, by way of looping.

Reggio Emilia Approach (Loris Malaguzzi)

The Reggio Emilia approach to early childhood education is based on over forty years of experience in the Reggio Emilia Municipal Infant/toddler and Preschool Centers in Italy. Central to this approach is the view that children are competent and capable.

It places emphasis on children's symbolic languages in the context of a project-oriented curriculum. Learning is viewed as a journey and education as building relationships with people (both children and adults) and creating connections between ideas and the environment. Through this approach, adults help children understand the meaning of their experience more completely through documentation of children's work, observations, and continuous teacher-child dialogue. The Reggio approach guides children's ideas with provocations—not predetermined curricula. There is collaboration on many levels: parent participation, teacher discussions, and community.

Within the Reggio Emilia schools, great attention is given to the look and feel of the classroom. Environment is considered the "third teacher." Teachers carefully organize space for small and large group projects and small intimate spaces for one, two, or three children. Documentation of children's work, plants, and collections that children have made from former outings are displayed both at the children's and adult's eye level. Common space available to all children in the school includes dramatic play areas and worktables.

There is a center for gathering called the atelier (art studio) where children and children from different classrooms can come together. The intent of the atelier in these schools is to provide children with the opportunity to explore and connect with a variety of media and materials. The studios are designed to give children time, information, inspiration, and materials so that they can effectively express their understanding through the "inborn inheritance of our universal language, the language that speaks with the sounds of the lips and of the heart, the children's learning with their actions, their signs, and their eyes: those "hundred languages" that we know to be universal. There is an atelierista (artist) to support this process and instruct children in arts.[6]



Figure 4.3: Curriculum models.[7]

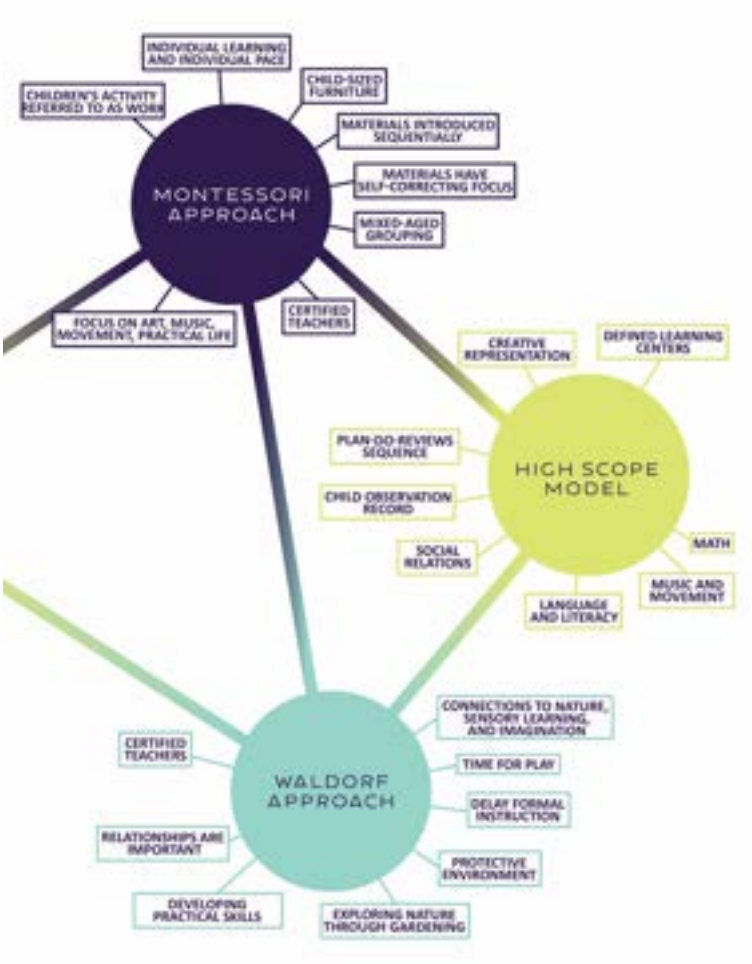

Figure 4.4: Curriculum models.[8]

Webbing

The Reggio Emilia Approach is an emergent curriculum. One method that many Early Childhood Educators use when planning emergent curriculum is curriculum webbing based on observed skills or interests. This method uses brainstorming to create ideas and connections from children's interests to enhance developmental skills. Webbing can look like a "Spider's Web" or it can be organized in list format.

Example:

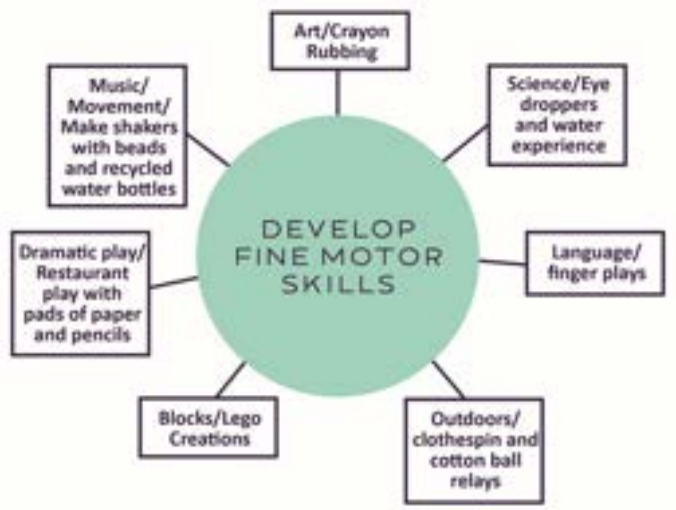

Figure 4.2: An example of webbings.[9]

Webbing can be completed by:

- An individual teacher
- A team of teachers
- Teachers and Children
- Teachers, Children and Families

Webbing provides endless planning opportunities as extensions continue from observing the activities and following the skills and interests exhibited. As example demonstrates a web can begin from a skill to develop, but it can also be used in a Theme/Unit Approach such as transportation; friendships; animals, nature, etc…

Project Approach

The project approach is an in-depth exploration of a topic that may be child-or teacher-initiated and involve an individual, a group of children, or the whole class. A project may be short-term or long-term depending on the level of children's interests. What differentiates the project approach from an inquiry one is that within the project approach there is an emphasis on the creation of a specific outcome that might take the form of a spoken report, a multimedia presentation, a poster, a demonstration or a display. The project approach provides opportunities for children to take agency of their own learning and represent this learning through the construction of personally meaningful artefacts. If utilized effectively, possible characteristics may include: active, agentic, collaborative, explicit, learner-focused, responsive, scaffolded, playful, language-rich and dialogic.[10]

In the project approach, adults and children investigate topics of discovery using six steps: Observation, Planning, Research, Exploration, Documentation, Evaluation.

1. *Observation:* A teacher observes children engaging with each other or with materials and highlights ideas from the observations to further explore.
2. *Planning*: Teachers talk with children about the observation and brainstorm ideas about the topic and what to explore
3. *Research:* Teachers find resources related to the topic
4. *Explore:* Children engage with experiences set around the topic to create hypotheses and make predictions and formulate questions
5. *Documentation*: Teachers write notes, create charts and children draw observations and fill in charts as they explore topics/questions
6. *Evaluate:* Teachers and children can reflect on the hypotheses originally developed and compare their experiences to predictions. Evaluation is key in determining skills enhanced and what worked or what didn't work and why.

The benefits of a project approach are that young learners are directly involved in making decisions about the topic focus and research questions, the processes of investigation and in the selection of the culminating activities. When young learners take an active role in decision making, agency and engagement is promoted.

As young learners take ownership of their learning they, 'feel increasingly competent and sense their own potential for learning so they develop feelings of confidence and self-esteem' (Chard, 2001).[11]

Culturally Appropriate Approach

The Cultural Appropriate Approach has evolved over the years and the practice of valuing children's culture is imperative for children to feel a sense of belonging in ECE programs. Sensitivity to the variety of cultures within a community can create a welcoming atmosphere and teach children about differences and similarities among their peers. Consider meeting with families prior to starting the program to share about cultural beliefs, languages and or traditions. Classroom areas can reflect the cultures in many ways:

- Library Area: Select books that represent cultures in the classroom
- Dramatic Area: Ask families to donate empty boxes of foods they commonly use, bring costumes or clothes representative of culture
- Language: In writing center include a variety of language dictionaries;
- Science: Encourage families to come and share a traditional meal[12]

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4.2: The Dynamic Process

Curriculum planning for young children is a dynamic process that takes into account children's ideas and interests. As stated earlier, infant/toddler and preschool curriculum should reflect the unique context of each group of children, families, and teachers. The curriculum plan that works well for one group of children may generate little interest in another group of children.[1]

For Example:

A group of children living near a large urban park may have the opportunity to experience several trips to check on a nest with eggs laid by one of the ducks living at the pond nearby. The ducks, their habitat, and the eggs become the object of study for several weeks, as the children discuss, tell stories, plan ways to protect the eggs from danger, and count the days of waiting. The teachers did not anticipate this curriculum prior to the discovery of the duck nest, yet the duck nest became part of their curriculum plans. Another group of three- and four-year-olds in a different program in the same city might be developing the same emerging skills and learning the same concepts yet be focused on their classroom pet—a tree frog—exploring his food likes and discovering how to maintain his habitat in a way that keeps him healthy and thriving. Like most journeys, early childhood curriculum follows a course that is unique for each group of children, with unpredictable content from group to group and from setting to setting.[2]

What is constant and predictable in a dynamically generated curriculum is the foundation of concepts and skills that teachers support as children pursue ideas and topics of interest. Through professional preparation, teachers who work with young children understand how to recognize the concepts and skills described in California's early learning foundations. Teachers look for opportunities to engage the minds of young children in meaningful play, interaction, conversation, and investigation—creating curriculum that nurtures the inquisitive minds of the children and connects with their experiences and developing knowledge and skills. Dynamic curriculum emerges throughout the year and changes each year as teachers respond to the unique teaching opportunities that present themselves.[3]

Co-Constructed Curriculum

Early childhood curriculum is co-constructed with input from family members, teachers, and the children themselves. Teachers and families observe and reflect together on children's experiences and generate many possible ideas for what new experiences or materials might extend and render more complex and coherent children's thoughts, feelings, and ideas. In volume 2 of the California Preschool Curriculum Framework (CDE 2011b), the story of children's investigation of fresh food from the garden illustrates the dynamic and co-constructed nature of early childhood curriculum. In this excerpt from a vignette in volume 2 (CDE 2011b, 17), the teachers describe how they generate possibilities for exploring this topic with a group of three- and four-year-olds: [4]

Vignettes

In this project, both parents and teachers wanted to find ways to support children's health and nutrition, a desire that emerged during a presentation at a parent meeting on nutrition and obesity prevention in young children. Many of the parents were surprised to learn that "picky eating" is a stage that can evolve into long-term resistance to eating fruits and vegetables and that one way to prevent children from becoming resistant is to encourage them to try a variety of fresh produce.

An idea that emerged from the discussion was to give children a series of opportunities to explore and taste fresh fruits, vegetables, and other edible plants in their natural, preprocessed state. Parents and teachers together began to think about the varied smells, textures, colors, and tastes of locally grown fruits, vegetables, and edible plants that young children could explore.

In this particular vignette, the teachers and families co-construct an idea for a curriculum project. In other situations, an idea that becomes the topic for an ongoing investigation might come from a child. When an idea for a curriculum project is proposed, teachers generate possibilities for how that idea might be explored, being mindful of how, within the investigation or project, children might have an opportunity to use emerging foundational skills and concepts. The teachers invite families to join them in coming up with ideas for the investigation. In the investigation of fresh foods from the garden, the following planning question guided discussions among teachers and families: How might we give children an opportunity to explore and learn about fresh fruits and vegetables grown in the garden?

Reflecting on different possibilities, the teachers became curious to see what children would do if given the chance to explore root crops such as carrots, beets, or onions that still had stems and leaves attached. Teachers shared this idea with children's

families through a note near the sign-in sheet. Soon after the note was posted, one of the parents brought in big bunches of fresh mint that she was ready to remove from an overgrown section of her yard. Other families responded to the note by offering to bring in cucumbers, apples, and lemons from local gardens or farmers markets. Teachers began to anticipate the ways in which children might build emerging skills, concepts, and ideas in exploring these plants.

In the preceding example, teachers are aware of how this topic holds possibilities for children's learning to extend to multiple domains of study. Children will have opportunity to use foundational concepts in mathematics and science, story comprehension and language, as well as skills in drawing and painting, among others. Teachers will also look forward to sharing and naming for families their children's learning, as the investigation directly connects with key concepts and skills children are acquiring in each of the domains of learning.[5]

Responsive Approach

Early childhood curriculum planning is responsive to the interests and opportunities that exist in a group of children, families, and community. This means that as they plan, teachers observe and listen to children's ideas. Curriculum plans that are dynamic, collaboratively constructed with children, and responsive put children's thinking at the center of the curriculum planning process. Teachers should be reflecting on what is meaningful to the children within their community. Rinaldi (2006a) offers this advice on how to approach curriculum planning that is responsive to children's thinking: "What kind of context, what kind of possibility can you offer to the children for the next step and the next step, not because you know the next step, but because you want to offer [them] a possibility for going deeper and deeper in their research?"

A written plan that is responsive is seen as holding "possibilities" for children's inquiry, rather than delivered as an activity focused solely on a particular skill. A responsive plan may be proposed as a question—"What might happen if we . . .?" or, "In what ways will the children explore . . .?" When posed as a question, the plan prompts teachers to observe what ensues and to record what delights, surprises, amazes, or puzzles the children. Mindfully noting children's responses adds to teachers' understanding of how children are thinking and making sense of the experience. A responsive plan is more than simply the proposed activity written on a planning form. It includes observations of what occurs and teachers' interpretations of what children appear to be thinking and feeling during the experience. The following table illustrates how teachers might create a plan that offers possibilities for children to explore, along with examples of observations and interpretations of how children engage with the materials. The interpretations will inform what might come next in the curriculum as well as inform the ongoing assessment of children's learning.[6]

Table 4.1: Plan of Possibilities

Plan of Possibilities[7]		
Planning Question: "What will happen when the toddlers encounter squeeze bottles in the play spaces?"		
Observation:	Photos Taken	Interpretation:
Jerrod wrapped his fingers around the bottle, but no liquid emerged. Elaine makes a steady stream of water emerge from her squeeze bottle. She looks at Jerod, frowning and whining, and then reaches over and squeezes Jerrod's bottle for him. He smiles, but then pushes her hand away and tries squeezing the bottle again. Alexander and Raj find the squeeze bottles in the play kitchen and squeeze imaginary liquid into pots on the stove. Raj directs Alexander: "Like this! Put some in the soup."	X	This was a struggle for J., because he still grasps and holds things with his full hand. [DRDP (CDE 2015) Fine Motor]. We may want to adapt the object using a bottle that is easier to squeeze (i.e., easier to grasp and hold), so that he can experience success. E. interacts in simple ways with familiar peers as they play side by side. [DRDP (CDE 2015) Social and Emotional Understanding] She wants to help J in a simple way. A. & J. incorporate this simple tool into their pretend play [DRDP (CDE 2015) Symbolic Play.] Adding plastic squeeze bottles that are easier to squeeze will also offer an element of discovery for the others, who might begin to experiment with the pressure they need to exert in order to make the water flow.

DRDP refers to the Desired Results Developmental Profile (CDE 2015), a periodic assessment of an infant's learning. The Plan of Possibilities was adapted and used with permission (Maguire-Fong 2015).

It is the careful observation and documentation of what children do and say as they play that generates ideas for the next steps in the investigation. The next step might simply be to change or add materials, as a way of extending or adding complexity to the play and to offer children opportunities to build and to use emerging concepts and skills. Teachers look for moments in which the children are amazed or surprised. Documentation of what children found unexpected not only provides evidence of their sense of wonder about what people and things are like and the way things work, but it also guides what to plan next in the curriculum.[8]

References

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4.3: Contexts for Written Plans

Early childhood teachers write plans sometimes for an individual child, sometimes for a small group of children, and sometimes for the entire group of children.[1]

Individual Plans

One-on-one moments of teaching and learning play a major role in early childhood settings. Early childhood teaching requires that teachers be present to guide individual children when needed, adapting their teaching to support each child's individual learning. For example, some children may be somewhat cautious in joining others in play, but may become excited about the possibility if the teacher accompanies them into the area where a group of children are playing together. An early childhood teacher will note this cautious aspect of a child's temperament. The teacher may make a plan to include watching for opportunities to be a "social bridge" of support for the child who tends to be cautious, helping that child with joining the other children's ongoing play. The following vignette taken from volume 1 of the California Preschool Curriculum Framework (CDE 2010a, 76) illustrates the teacher's role.

Vignettes

Lucas stands close to his caregiver, Ms. Mai, who is sitting in the block area. Ms. Mai observes Lucas watching his peers at play as they build a large train. "This train is getting really big," she comments to Lucas with a soft smile and a gentle hand on his back. Lucas nods his head slowly. "I wonder if Martin needs a helper. He said he is the engineer, but an engineer needs a conductor. Would you like to hand out and collect tickets?" Lucas nods his head again and reaches for Ms. Mai's hand as she gets up to move closer to the train. Ms. Mai provides Lucas her hand and another reassuring smile. "You could let Martin know you want to help. Tell Martin 'I can collect the tickets.'' Lucas pauses and then mumbles (or signs), "Martin, I can collect tickets." "You all look like you are having fun over here. Lucas wants to help too. Where are the tickets for Lucas to pass out to your riders?" restates Ms. Mai. "Oh! Over there," responds Martin, pointing over to the basket of torn pieces of paper.

"Thanks, Martin, for your help. Lucas, let's go get the tickets and hand them to our friends. I think these builders will want to fill the train with passengers," observes Ms. Mai excitedly."

In this vignette, the teacher is aware of Lucas' caution in entering the play, yet his strong awareness and most likely his desire to enter the social play become part of his individualized curriculum plan. Because such individualized curriculum is a component of early childhood teaching, the teacher–children ratio must be kept sufficiently low to allow the teacher to know in depth how each child is developing and learning. In infant/toddler programs, assigning a primary care teacher who stays with three or four children throughout infancy, makes it possible for teachers to know each child well and tailor individualized plans to support each child's learning and development.

Many programs use a child portfolio system to record ongoing individualized curriculum plans. A portfolio tells the story of a child's developmental progress. It may include periodic psychometric assessments of the child as well as planning notes specific to the child. It may also include notes of what the child did in response to the plans, photos, or work samples that give insight into the child's progress. A child's portfolio allows a teacher to track a child's individual needs, keep a record of what is planned to support those needs, and document progress in learning. Such individualized planning is not posted, like the plans designed for groups of children, but the plans in each child's portfolio are regularly reviewed and shared with families. Here is an example of an individualized curriculum plan:

Observation Notes

Observation: Lucas is somewhat cautious in joining others in play. He stands to the side and watches others as they play.

Interpretation and Plan: Lucas appears to want to join the play, but may need just a little bit of support. I plan to watch for moments when he is on the side- lines of play, find ways to invite him into the social play, and stay with him to support him in his encounters with the other children.

In this example, the teacher knows about temperamental differences and knows how to assume the role of "social bridge" to assist the child to join other children's ongoing play. Planning to be a "social bridge" for a child with a cautious temperament is part of a larger individual plan. Lucas' teacher recognizes that Lucas will have opportunities to learn various skills in an integrated way when he joins the social play. The teacher watches for ways in which this social context prompts the child to express and manage emotions, to understand and use language, to collaborate with others, and to solve problems. Individualized planning applies to all

areas of learning and tends to highlight those concepts and skills that children would otherwise miss the opportunity to build if teachers developed plans only for the large group of children.

Another of the over-arching principles from the California Preschool Curriculum Framework states that individualization of learning includes all children. Of course, some children have individual plans developed by specialists to address the children's developmental needs. For children under age three, those plans are called Individual Family Service Plans (IFSPs), and for children over age three they are called Individualized Education Programs (IEPs). For children who have one of these, it is helpful for the teacher to know how to support the identified goals, outcomes, or objectives in the early childhood setting. With parental permission, the teacher can either be a part of the planning process or communicate with the team that developed the plan. More information on this process can be found in chapters 1 and 5 of Inclusion Works! (CDE 2009b).[2]

Group Plans

Teachers also regularly prepare written plans to organize experiences for the full group of children in a classroom or program. These plans are posted in a predictable place and referenced throughout the day or the week by the teachers and the families. These group plans may be daily or weekly plans. Group plans describe possibilities for experiences that relate to either a small group or a large group of children. A small group is typically a teacher-guided experience with four to eight children. The following vignette from volume 1 of the California Preschool Curriculum Framework (CDE 2010a, 17) illustrates how teachers plan for a small-group context:

Vignettes

During one of their discussions about their observations of the children's interest in the snails, the teachers . . . decided to do focused exploration of snails, with small groups of four to six children. In a small group, children would have an easier time building relationships with each other and with the teacher, a learning goal for the whole class. With each small group, the teacher helped the children create a snail habitat in the science interest area. The children could return to the interest area throughout the day for exploration. The teacher and small group worked together over days to transform a glass terrarium into a habitat for snails, with dirt, plants, and enough space for other small creatures.

Planning for a Large Group Context:

The /s/ sound in the new and now popular words— snails and slugs—"slippery snails and slugs slowly slithering make slimy stripes." She knew how much the children enjoyed chants, songs, and finger plays. She also knew the value in helping children to hear and make distinct sounds of oral language.

In the large group, the teachers pointed out that a new kind of helper had been added to the helper chart. Now, two of the children would be "snail helpers." From then on, each day during large-group time, children checked to see whose name cards had been placed next to the snail photo on the helper chart. In the large group, children reported on some of the things they had been doing in their small-group explorations of snails.

Posting the daily or weekly group plan is important. What teachers record on the posted daily or weekly curriculum plan organizes the possibilities for that day or that week and makes the plan for learning visible to anyone who reads it. The posted plan should serve as an organizing tool for teachers to know easily what comes next. In an early childhood setting, unless the program is a small family child care home, there are typically two or more staff members who care for the children. A written plan posted in a central location serves as a useful reference throughout the day for all those involved in supporting the children's learning.

Some parts of the day that support children's learning remain the same each day. For example, in preschool washing hands before meals, inviting the children to notice or to count who is present and who is absent, or setting up the outdoor painting

To build upon the children's interest in snails, the teachers announced to the children during large- group circle time that the snail trays would be available for exploration. The teachers also used the large-group circle to read books and tell stories about snails. One teacher invented a simple clapping chant to play with easels, which usually occurs each day. These routine experiences do not need to be written into each daily plan. Rather, a record of these regularly occurring opportunities for learning can be included in a description of the program schedule, along with a description of the distinct interest areas set up inside and outside. For example, the California Preschool Curriculum Framework (CDE 2011b, 16–19) provides a guide for the design of specific interest areas that support children's learning as they enjoy self-initiated play. Written descriptions of how teachers plan for each interest area should be included in the program handbook and shared with families when they enroll in the program.

Teachers write on the posted daily or weekly plan what they expect to do to supplement the ongoing learning experiences built into the well-supplied interest areas, the thoughtfully designed daily routines, and the interactions and conversations that lead to "teachable moments" that occur spontaneously during the day. The posted curriculum plan for preschool typically includes the following items:

- Topics to discuss or books to read at group time
- A focus of small-group activities planned for the day
- Materials to add new challenges and experiences to the interest areas both inside and outside

Similarly, the curriculum plan for infants and toddlers includes the following items:

- Books to look at or read with children
  Songs, finger plays, and rhyming games that will occur during the day
- Materials to add new challenges and experiences to the environment both inside and outside[3]

Pause to Reflect

"Being in the Moment with Children"

Meaningful experiences are also created spontaneously in the moment with children. Sometimes teachers must act in the moment, without a preexisting plan, to foster the ideas of children.

For example, I was observing a child building a structure with blocks. After observing the child and talking to him about his work, the child said to me "I need more stuff for my project!" So I simply asked him what he needs and how I could help. He listed some items (glue, popsicle sticks, pipe cleaners, tape, cardboard). We went on a 'mission' together and gathered all of his materials, which he went on to build with for quite some time. He was proud and satisfied with his work, which he took home.

There are countless ways that teachers can be in the moment with children and foster their ideas without a "plan." Plans often times don't go the way we expect. When we are flexible we can honor the decisions and ideas of the children.

Reflect

Why is it important to follow the child's lead in their play? How can teachers reflect on these spontaneous experiences, and document the learning that took place for the children involved in these spontaneous experiences?[4]

Family Focus

Children's experiences with their families also inform the curriculum. Teachers look for ways to connect the children's learning in the early childhood program to their experiences at home. The following moments in the investigation of fresh foods that come from the garden illustrate how teachers make connections to the children's lives at home (CDE 2011b, 33):

Vignette

Once the investigation of fresh fruits and vegetables from the garden was under way, the teachers from the four-year-olds' room wondered whether they might tap the life experiences of the families for stories that related to fresh fruits and vegetables from the garden. The teachers decided to place a photo documentation of the children's cucumber-tasting experiences near the classroom's entryway. They added a note and a clipboard. The note was an invitation for families whose home language was other than English to write down in their home language the name for cucumber (or a similar vegetable eaten in their culture). Once gathered, the teachers added these names to the laminated photo cards of cucumbers stored in the food box in the writing area. If a family had described a vegetable that was similar but distinct from the cucumber, they were invited to bring a picture of this vegetable, or even the vegetable itself, for children to compare with the cucumber.[5]

From the perspective of developmental scientists who study how the mind of the child develops, early childhood curriculum is most effective when teachers provide generous opportunities for children to engage in meaningful play, well supported by materials and experiences that fascinate them and engage their natural ways of making meaning (Gopnik 2009; Hirsh-Pasek et al. 2009; Rinaldi 2001; Singer, Golinkoff, and Hirsh-Pasek 2006; Zigler, Singer, and Bishop-Josef 2004). When early childhood teachers are asked or attempt to follow a prewritten scope and sequence of instructional activities, the essential features of an integrated curriculum—co-constructed, responsive, and dynamic—are often lost.

However, even when using a prewritten scope and sequence of activities, early childhood teachers can find ways to modify the planned activities to respond to the unique cultural and family context of their program and their unique group of children. For example, the investigation of fresh foods that come from the garden could be implemented within a curriculum that includes a theme about plants or spring.[6]

Connecting Families to Curriculum Planning

Documentation is an invitation to families. Family and community partnerships create meaningful connections. Documentation not only guides curriculum planning and provides evidence of children's learning, it also offers an easy and effective way to engage families in participating in planning for children's learning. A note, a photo, or a work sample serves as an invitation to families to participate in interpreting the observed play and exploration made visible by the documentation. The following example illustrates how teachers use documentation to invite families to join them in the work:[7]

Vignette

During the small-group face-drawing activity, Clayton was picking out pencils for his skin color when his mother arrived to pick him up. She knelt near the table as Connie read the name printed on the colored pencil that Clayton had selected. "This one says, 'sienna brown.' What do you think, Clayton?" Connie asked, as she moved the tip of the pencil near his arm. "Is that your color?" Clayton smiled at his mother, "I'm sienna brown, mommy. Which one do you want to be?" A few minutes later, when Clayton was retrieving his things from his cubby, his mother confided in Connie how much she had enjoyed picking out her skin color with Clayton. She had been uncertain about how to talk with Clayton about skin color, because she was of European–American background and Clayton's father was African American, and most of the family members living nearby were Caucasian. They discussed the possibility of doing an activity at the next parent meeting in which all the parents could explore the variety of flesh-toned colored pencils and even to blend different tints of homemade play dough that they could take home to enjoy with their children.

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4.4: Learning Experience Implementation Plan Sample

CURRICULUM / ACTIVITY IMPLEMENTATION PLAN

Developed by: *(your name)*

Title / Description:

Resources *(Where did you learn about this activity)* ***(NAEYC Standard 5c)*****:**

Reason(s) for Curriculum Plan *(justify by considering developmental milestones, learning domains, observations in your assigned children's classroom, and your knowledge of child development, milestones, word picture handout & DAP that guided your decision to implement this particular activity)* ***(NAEYC Standards 1a,1c,4c,5a, 5b, &5c)****:*

Ages of Children: Number of Children:

Location:

Segment of Daily Routine:

Materials Needed *(be specific-quantities, color, book and song titles, etc.)* ***(NAEYC Standard 1c)***

Implementation / Directions *(List step-by-step as if the implementation could be replicated without you; include set up and clean up, involving children whenever possible. Step-by-step description of learning activities with specific detail.) Describe step-by-step what the children will be doing.*

Now describe your role. Your guidance supports a maximum learning environment. Flexibility and supporting the child's process is vital ***(NAEYC Standard 4a)****. Questions to ask yourself: How will you introduce the activity?* ***NAEYC Standard 5a)*** *(How will you engage the children?* ***(NAEYC Standard 4a)*** *What will you be doing/saying? What is your role during the activity? What open-ended questions will you be using? Please include a minimum of 3 open ended questions for your activity.*

Specific ways this activity will facilitate development:***(NAEYC Standard 5a)***

Physical:

a)

b)

Cognitive:

a)

b)

Language:

a)

b)

Social/Emotional:

a)

b)

Creative:

a)

b)

Behavioral Considerations *(Plan ahead…what issues might arise/what strategies might help)* ***(NAEYC Standards 4b, 4c & 4d)***:

a)

b)

c)

Documentation *How will you collect and display the development listed above? (documentation board, classroom book, power point, Prezi, creative ideas, etc.)* ***(NAEYC Standard 5b)***

Webbing Ideas (*List at least 5 activities to extend the learning into other areas; try to include one appropriate use of technology)* ***(NAEYC Standard 5a)***

Modifications to include ALL children *(developmental delays, disabilities, cultural and linguistic diversities, etc.)* ***(NAEYC Standard 4b, 4d & 5c)***

a)

b)

c)

Inclusion of Parents/Families (*NAEYC Standards 2a, 2b & 2c)*

Other Notes / Considerations:

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4.5: Creating Effective Curriculum

Children reveal their thinking through their behavior in play and interactions with others. The thinking children reveal informs the reflective curriculum planning process. As described in the introductory chapter of this book, the Curriculum-Planning Process begins with observation and reflection of children's play and interactions. Teachers document significant moments they wish to remember about what they see or hear, in order to share their observations with others. They discuss and interpret the documentation in order to plan what to do next to support the children's thinking and learning. A plan is then put into writing and implemented, and as it is implemented, teachers continue to observe, reflect, document, and interpret. This ongoing process generates a cycle of curriculum planning that incorporates the essential components of observation, documentation, interpretation, planning, and implementation.

Curriculum for young children is most effective when it is dynamic, co-constructed, and responsive.[1]

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SECTION OVERVIEW

Section III: Setting the Stage for Children's Learning

5: Setting the Stage for Play- Environments

5.1: Creating an Environment for Social and Emotional Learning
5.2: Analyzing the Environment
5.3: Connecting Theories to Environments
5.4: Curriculum Occurs Throughout the Day
5.5: Play Spaces as Curriculum
5.6: Environmental Design
5.7: Creating Environments for Infants and Toddlers
5.8: Temporal Environment - The Daily Schedule

6: Guiding Behavior and Managing the Classroom

6.1: The Teacher's Role - Build and Maintain Positive Relationships with Children
6.2: Factors that Influence Behavior
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CHAPTER OVERVIEW

5: Setting the Stage for Play- Environments

Learning Objectives

After reading this chapter, students will be able to:

- Identify the role of the Environment as a “Teacher”
- Connect Early Childhood Theories to the Environment
- Understand Learning Areas and Zones for DAP
- Identify and list appropriate materials for each learning area
- Analyze a variety of floor plans for indoors and outdoors
- Explore Temporal Environment by looking at schedules, routines and rituals, and transitions

The environment is often labeled as a “teacher” in Early Childhood Education. The meaning behind this label is that if an environment is intentionally created with developmentally appropriate practice in mind, it will serve to assist with learning as well as classroom management. A quality early childhood educational environment, whether it is indoor, outdoor or temporal, should encourage engagement, stimulate learning and promote growth in all areas of development.

The effective preschool teacher recognizes, understands, and respects the values of children’s families and communities and attempts to make the preschool environment as congruent with those values as possible.[1]

5.1: Creating an Environment for Social and Emotional Learning
5.2: Analyzing the Environment
5.3: Connecting Theories to Environments
5.4: Curriculum Occurs Throughout the Day
5.5: Play Spaces as Curriculum
5.6: Environmental Design
5.7: Creating Environments for Infants and Toddlers
5.8: Temporal Environment - The Daily Schedule

References

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5.1: Creating an Environment for Social and Emotional Learning

Teachers in a high-quality preschool program ensure that all the children feel safe and nurtured. They know how to create a classroom climate of cooperation, mutual respect, and tolerance and support children in developing skills needed to solve problems and resolve conflicts with peers. Social and emotional learning is central to young children's development in the preschool years and works hand in hand with cognitive and academic learning. To learn well, they need to feel safe, to feel comfortable with their preschool teacher, and to be supported in their play with other children. All these factors interact with each other and either promote or detract from children's learning and well-being. Because preschool children are naturally curious and learn best in meaningful contexts, teachers responsible for planning the learning environment and curriculum will best support children's learning and development when they use a variety of strategies to support children's learning—such as focusing on interactions, scaffolding learning experiences, engaging in explicit instruction, changing the environment and materials, and making adaptations to the learning environment.

Teachers make use of daily routines as an important context for learning, integrating engaging learning opportunities into the everyday routines of arrivals, departures, mealtimes, naptimes, hand- washing, setup, and cleanup, both indoors and outdoors. Children enthusiastically practice and apply emerging skills when they are helpers who ring the bell to signal it is time to come inside; when they count how many are ready for lunch; when they move a card with a child's photo and name from the "home" column to the "preschool" column of a chart near the room entry; when they put their name on a waiting list to paint at the easel; or when they help set the table for a meal, making sure that each place has a plate, utensils, and a cup. Such routines offer opportunities for children to build language skills, to learn the rituals of sharing time with others, and to relate one action in a sequence to another" (adapted from CDE 2010, 18).



Figure 5.2: This young girl is learning through the daily routine of setting the table.[1]

Based on teachers' assessments of individual children's learning, the teachers might add materials to play-based interest areas, decide to read books with small or large groups, adapt activities to meet the diverse learning needs of children in the classroom, and think of a particular topic area that children would be interested in investigating. Guided by the California preschool learning foundations, teachers use their understanding of children's learning and development as a way to ensure they adequately support children's development across all domains. With clear ideas or objectives in mind, teachers plan curriculum that includes strategies to enhance the learning of all children in a group, as well as strategies to support the learning of individual children (adapted from CDE 2010a, 21). Please refer to Chapter 4 for a closer look at the curriculum planning process.[2]

References

[1] Image by Senior Airman Brittany A. Chase is in the public domain

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5.2: Analyzing the Environment

In a educators' guide, the Australian Government Department of Education states:

Children are important sources of inspiration and creativity when planning the environment, so it is an opportunity to learn by being open-minded and to collaborate with the children. It is important to include materials which are inviting and which can be used in a variety of ways.

- *How does your environment convey a sense of belonging for children, families and educators?*
- *Do children have a sense of autonomy?*
- *What involvement do children have in the planning of the environment?*
- *Have you tried to make the environment more home-like?*
- *How might you make it more aesthetically pleasing?[1]*

Teacher Tip

During an annual ECE conference, a presenter challenged the participants to change their thinking on student readiness. As a teacher, I spent a lot of time considering how to best prepare the children in my care for the transition to older classrooms. Attending this workshop inspired me to think differently. Readiness is not about getting children ready, but rather getting our environments ready for the children as they come to us. To put this into practice, our preschool teachers visited children in the toddler classrooms and observed the interest in specific areas, materials and took notes on skills observed. As the children began to transition into our preschool classroom the room was set with a mixture of materials they were familiar with as well as new materials appropriate for their new stage of development. The pressure was off of the toddler teachers to prep for what they thought the children needed to be ready with and the new preschool teachers had realistic expectations of the children as they matriculated into their new environments. We took this idea one step further with our older preschoolers and had them help us to create the spaces they wanted to use. The children walked from area to area and estimated how many children could safely exist in each area. Next, we placed the number of students allowed in each area at a time (from the children's perspective) and we let them experiment. We reflected with the children our observations and their experiences and decided together if the amount of children allotted per area was reasonable or needed adjusting. We found that by incorporating the children's ideas and participation in environmental design, they were more respectful of the environment and the environment reflected their ideas and values. Remember: Not every area of the classroom has to be created equal. The environment should reflect the interests and skills of the people who use it.[2]

Early childhood teachers see and support children as scientists and thus design the play environment to serve the children's inquisitive minds. Teachers also provide the materials children need to construct concepts and ideas and master skills in the natural context of play. Children learn from opportunities to discover materials that they may be seeing for the first time and need time to explore and get to know the properties of these materials. It means offering children materials that they can organize into relationships of size, shape, number, or function and time. Children can investigate what happens when they put these materials together or arrange them in new ways, experiencing the delight of discovering possibilities for building with them, transforming them, or using them to represent an experience.

Loose Parts

An article by Reading Play discusses Loose Parts Theory:

'Loose parts' theory is about remembering that the best play comes from things that allow children to play in many different ways and on many different levels. Environments that include 'loose parts' are infinitely more open-ended, stimulating, and engaging than static ones. The play environment needs to promote and support imaginative play through the provision of 'loose parts' in a way that doesn't direct play and play opportunities, but allows children to develop their own ideas and explore their world.

- Must be included in both indoor and outdoor environments
- Have no defined use and play workers must support the children when they decide to change the shape or use of them.
- Must be accessible physically and stored where they can be reached by children without having to ask the play workers. The children should know that they can use them whenever and however they wish.

Must be regularly replenished, changed, and added to.[3]

Early childhood teachers also design the daily routines as rich opportunities for children to participate actively and to use their emerging skills and ideas in meaningful situations. Equally important are the ways in which teachers use interactions and conversations with children to support learning.[4]

References

[1] Australian Government Department of Education (n.d.) Educator My Time, Our Place. Retrieved from files.acecqa.gov.au/files/National-Quality-Framework-Resources-Kit/educators_my_time_our_place.pdf (p. 48)

[2] The Integrated Nature of Learning by the California Department of Education is used with permission

[3] Reading Room (n.d.). The Theory of Loose Parts by the Reading Room. Retrieved from http://www.readingplay.co.uk/GetAsset.aspx?id=fAAyADUAMgB8AHwARgBhAGwAcwBlAHwAfAA4AHwA0

[4] The Integrated Nature of Learning by the California Department of Education is used with permission (pg. 19-21)

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5.3: Connecting Theories to Environments

Environments should be planned with developmental theories in mind:

- **Jean Piaget and the Cognitive Theory**: Environments should encourage active learning, stimulate skills of inquiry and promote problem-solving/risk-taking. Examples: Materials are placed low on shelves that make easy access for children. The shelves should be labeled with pictures of the materials so that children are encouraged to place these materials where they belong by matching the material to the photo when they finish playing with them. The environment must be stimulating for children to encourage knowledge seeking.
- **Vygotsky and the Sociocultural Theory**: Environments should provide opportunities for meaningful interactions that challenge children (zpd) and in which scaffolding exists through child-child and child-adult interactions.
- **Behavioral Theory**: Daily routines must be consistent and expectations of behavior should be clearly defined.
- **Erikson**: Environments provide opportunities for children to develop feelings of trustworthiness, autonomy and initiative in the early years. The environment provides areas for children to feel safe, play independently, and make choices throughout the day. [1]

References

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5.4: Curriculum Occurs Throughout the Day

As previously stated, young children learn in everyday moments of play and interaction. A child who arrives in the classroom and sees his name written on a cubby where he deposits what he brought from home is learning. That learning is amplified when he walks to a nearby metal tray (labeled with the words “Home” and “School”) and moves the magnet attached to his photo from the “Home” side of the frame to the “School” side. The learning continues when he stops to write his version of his name in the sign-in binder, located near a ring of cards with a child’s name and photo printed on each. In this area, he can observe the accompanying family member sign him in as well.

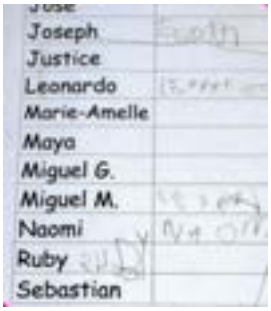

Figure 5.3: An example page from a sign-in binder.[1]

A bit later, that same child is learning when he describes to the teacher his frustration that his “favorite tricycle is still being used by another child.” The teacher suggests what he might say to encourage the other child to explore how the two of them might cooperate. After that conversation, his learning continues as he ventures into the block area and takes on the challenge of turning a container of blocks and boxes into a gas station, negotiating varying roles in the pretend play with his friends. At lunch, when he pours milk into his glass using a small measuring cup, he is learning. Each moment of learning, in this example, emerged from thoughtful, intentional curriculum planning. Early childhood teachers plan such opportunities for young children to learn throughout the day.

Teachers’ early childhood curriculum plans include the physical space as a context for learning. This means that teachers plan what, when, and how materials and furnishings are made available to the children for use. Teachers also plan the social environment—the roles, responsibilities, and guidance offered to children—during the daily routines and during moments of spontaneous interactions. A broad definition of curriculum includes the following components:

- Play spaces designed as environments for learning
- Care routines designed to invite children’s active participation
- Interactions and conversations with children that support their understanding of themselves and others

References

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5.5: Play Spaces as Curriculum

With play being central to the way in which children construct knowledge about the world around them, an important task for teachers is to develop play spaces thoughtfully and purposefully. Play spaces are children's environments for learning. Seeing children as young scientists leads to the creation of play spaces that become the children's laboratories for learning. Whether inside or outside, their play spaces are where they explore, experiment, and solve problems. Play spaces include materials and furnishings that invite children to figure out what the world is like and how it works. When early childhood teachers thoughtfully select and organize materials for play, they support an essential aspect of curriculum—self-initiated exploration, investigation, and invention of ideas. Jones and Reynolds (2011) list the varied roles assumed by early childhood teachers, one of which they call "stage manager." This role means that the early childhood teacher purposely sets the stage for learning by selecting toys, furnishings, and materials that invite children to explore, experiment, and solve problems. In a well-designed early childhood program, the play environment holds immense possibilities for learning and creativity.

Consider how the play environment provides a context for learning in the following vignette:

Vignette

During a moment of play in the art area, infant teacher Joette watches as two-year-old Lucila picks up a wooden frame that encloses two sheets of blue plexi-glass. Lucila puts her eyes up close to the plexi-glass and peers through. She holds the frame out to Joette, gesturing for her to take it. Joette responds, "You want me to see what you saw, don't you? I'd love to!" Joette looks through and exclaims, "I see everything blue! Here, your turn, Lucila." Lucila looks through the block again. Another child walks up and reaches for a different frame, this one with yellow plexi-glass inside. The two children laugh together as they move the frames back and forth in front of their eyes. Teacher Joette watches and then picks up a third frame, which has red plastic sheets. She holds it near the window, and a red patch appears on the floor. She gestures to the two toddlers and says, "Oh, look what's over here!" They rush to the red patch. Lucila steps onto the red and laughs with excitement. "It made red!" she says. "Yes!" says teacher Joette, "Will yours make a color on the floor, too? You want to try?" Lucila holds her frame to the sun, sees a blue spot, and says, "Yes, I made blue!"[1]

It is easy to see evidence of the children's thinking in this moment of play. They take full advantage of the materials available in this well-stocked play space designed to prompt play with colors and textures of materials. They notice the distinct features of the panes of translucent plastic. They compare them as they play. They use one item in relation to the other. They experience how they can use the different-colored panes to transform the shadows on the floor. They explore how the shapes change in space and how their actions cause different reactions. The inventions of one child are exchanged with those of the other. In this play space, children can be seen constructing concepts of shape, orientation, light, and transformation.

Joette and her co-teachers supplied this art area with the same care that scientists might stock their laboratories. In the art interest area for toddlers, they placed an array of toys and materials that invite exploration and comparison of color, line, shape, and texture. They made certain that there were objects with similar features as well as distinct features, in order to challenge the toddlers' emerging ability to sort one object from another. They gathered similar objects graduated in size, in order to challenge the toddlers to explore concepts of size and sequencing. In the collection were identical objects for creating pairs and for assembling many rather than few. The teachers made the materials easily available to the toddlers, on low shelves and in wide, shallow baskets and bins. A variety of containers were labeled, each holding a distinct type of object—objects made from paper in one; a collection of orange and red fabric pieces in another; a collection or blue fabric, feathers, and ribbons in another; and a collection of translucent colored frames in another.

In the natural course of spontaneous play, toddlers encounter such materials and build relationships of identity, order, size, shape, number, and space. Many of the materials, like the collection of fabric pieces, are familiar to the toddlers, already available in the bins of the play space for many days. Other materials, like the long pieces of translucent cellophane paper in a variety of colors, have been recently added by teachers, with the hope of extending and adding complexity to the toddlers' play with color.

The new materials added to the play space are part of the teachers' curriculum plan. During their weekly planning, Joette and her co-teachers discuss the observations they made of Lucila and her friends as the children explored the colored panes of plexi-glass. As the teachers interpreted the play, they wondered how to add some challenge and surprise to the toddlers' enjoyment of making colored shadows on the floor with the sunlight and the translucent plastic. The subsequent curriculum plan held a question: "In what ways will the children explore the long lengths of colored cellophane that they discover in the art area?" The teachers

wondered whether these new materials might provoke toddlers' deeper exploration of relationships of size, space, and similarity and difference. The teachers explored possible questions to prompt toddlers' experiments in transforming the primary colors in the yellow and the blue cellophane into the secondary color of green.

Once the stage is set for play, teachers observe to discover what will ensue. At times, teachers might narrate what goes on as the children play, offering language related to the play. The teachers might also prompt new ways of looking at the materials, as Joette did when she held the colored pane near the window to catch the sunlight and cast a colored shadow. In this moment, she artfully *scaffolded* the toddlers' learning by suggesting a new way of playing with the plexi-glass. A scaffold is a structure that allows someone to go higher in order to accomplish a task that the person could not have done alone. Teachers scaffold children's play when they connect in shared knowing with children and support them in going further to figure something out.

References

[1] The Integrated Nature of Learning by the California Department of Education is used with permission

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5.6: Environmental Design

Rich learning environments with a variety of activities enhance young children's learning and development. In an environment in which children have the opportunity to make observations, ask questions, plan investigations, gather and interpret information, and communicate findings and ideas (CDE 2012b, 53), they explore concepts in domains such as science, math, and history–social science. Dance, music, and drama not only introduce children to the arts and allow them to explore creative processes, they also provide opportunities for children to learn to regulate their behavior and take the perspective of another person.[1]

References

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5.7: Creating Environments for Infants and Toddlers

The infant/ toddler framework proposes the following play spaces to consider for an infant/toddler program:

- A cozy area for books and stories
- A small-muscle area
- A sensory perception area
- An active movement area
- A creative expression area

Here is a sample infant/toddler classroom. See Appendix B for an older toddler classroom and for the corresponding blueprints.



Figure 5.4: An infant/toddler classroom.[1]

Creating Environments for Preschoolers

The preschool framework offers the following list of suggested play spaces when creating a learning environment for children three to five years of age:

- Dramatic play area
- Block area
- Art area
- Book area
- Writing area
- Math area
- Science/Sensory area
- Family display area
- Music/movement
- Meeting area (for conferencing)

And here is a sample preschool classroom. Additional sample classrooms for preschoolers and corresponding blueprints can be found in Appendix B.



Figure 5.5: A preschool classroom.*[2]*

In both cases, it is helpful to think of ways that the spaces can be used by two or three children together, one child alone, or an adult and one or two children, as well as larger areas for more exuberant group play. Providing opportunities for small configurations enables the play space to support growing social relationships and meet needs of children who prefer more defined space or space away from others. [3]

Licensing Requirements for Indoor Preschool Classrooms in California

Here are a few of the licensing requirements to keep in mind when planning indoor environments for young children in California:

- The program provides for quiet and active play, rest and relaxation, eating, and toileting. (101230)
- 35 square feet of indoor activity space per child (not including bathrooms, halls, offices, food preparation areas, or storage. (101238)
- That each child has individual storage space for clothing, personal belongings, and bedding. (101238)
- Storage must be provided for play materials, equipment, and napping equipment. (101238)
- Combustibles, cleaning equipment and cleaning agents shall be stored in an area separate from food supplies in a locked cabinet or in a location inaccessible to children. (101238)
- Tables and chairs scaled to the size of children must be provided. (101239)
- All play equipment and materials used by children must be age-appropriate. (101239)
- Drinking water must be available freely to children. (101239)[4]

Ensuring Quality in the Indoor Environment

Tools, such Environment Rating Scales, can be used to help ensure the environment is high quality. Here are some items that describe high quality indoor environments for preschool-aged children according to the Early Childhood Environment Rating Scale (ECERS). A full checklist can be found in Appendix C.

- Space is accessible to children and adults, including those with disabilities
- There is ample space for the people and furnishings
- Adequate storage and seating
- Storage for play materials and personal belongings are accessible to children
- Cozy spaces and other soft furnishings and materials are provided
- At least five of the following centers are provided and accessible to children:
  - Art
  - Blocks
  - Dramatic Play
  - Reading
  - Nature/Science
  - Manipulatives/Fine Motor
- Spaces for active and quiet activities are separated
- There is more than one space for a child to have privacy

- Children's work makes up a majority of the classroom display
- Diversity is featured throughout the space (people of different races, cultures, ages, abilities, and gender in non-stereotyping roles)
- New materials are provided/rotated at least monthly
- The following materials are provided to children
  - Books feature many topics/genres
  - Fine motor toys (such as building materials, puzzles, art materials, and manipulatives)
  - Art materials (such as drawing materials, paints, play dough, clay, collage materials, and tools)
  - Musical instruments and different types of music
  - Blocks (such as unit blocks, large hollow blocks, and homemade blocks) and accessories
  - Dramatic play equipment and props
  - Sand and water play equipment and materials (such as containers, funnels, scoops, and accessories)
  - Natural materials (such as collections, living things, books, games, toys, and tools)
  - Materials featuring numbers and shapes
- All materials are organized and in good condition
- Materials of differing levels of difficulty are provided[5]

Outdoor Spaces

The areas highlighted in the frameworks should be represented in outdoor play spaces as well. Materials may vary but all areas should be reflected in both the indoor and outdoor environments.

Many outdoor spaces feature play equipment, such as what is shown in the following image, which is a great way to provide for children's large motor play and exploration.



Figure 5.6: An outdoor play area.[6]

But materials and experiences that would typically be indoors can easily be taken outside as well.



Figure 5.7: Caption: musical instruments can be explored indoors or outdoors[7]

A variety of additional equipment can be purchased to expand children's experiences outside, although a large budget is not required to create high quality outdoor spaces for young children.



Figure 5.8: Sensory play is one of the most popular activities for young children. While this setup allows for many children to play, less elaborate spaces would still create quality experiences for children.[8]



Figure 5.9: These children are busy building. Similar activities could be done with non-commercial materials.[9]

Programs may choose to provide a playground made of natural materials to immerse children in nature as well.



Figure 5.10: This preschool features nature heavily. Children can engage in many of the same experiences outdoors with these natural materials and "equipment."[10]

Licensing Requirements for Indoor Preschool Classrooms in California

Licensing Requirements for Indoor Preschool Classrooms in California

The following are some licensing requirements that programs in California should incorporate in the design and planning for their outdoor space:

- There shall be at least 75 square feet per child of outdoor activity space. (101238)
- The outdoor space shall permit children to reach the space safely. (101238)
- A shaded rest area should be provided. (101238)
- The surface of the activity space shall be in a safe condition and free of hazards. (101238)
- The areas around and under climbing equipment, swings slides and similar equipment shall be cushioned with material that absorbs falls. (101238)
- Equipment and activity areas shall be arranged so that there is no hazard from conflicting activities. (101238)
- Sandboxes shall be inspected daily and kept free of foreign materials. (101238)
- The playground shall be enclosed by a fence at least four feet high. (101238)
- Hazardous equipment such as a fuse box shall be inaccessible. (101238)[11]

Ensuring the Quality of the Outdoor Environment

According to the ECERS, here are some items that describe high quality outdoor spaces for children. See Appendix C for the full checklist:

- There is adequate space for gross motor play
- The space is easily accessible to children
- The space is organized so activities do not interfere with one another
- The following materials are included
  - Stationary equipment (such as, swings, slides, climbing equipment)
  - Portable equipment (such as, wheeled toys, mats, jump ropes, bean bags, balls)
  - Equipment that stimulates
    - § Balancing
    - § Climbing
    - § Ball play
    - § Steering
    - § Tumbling
    - § Jumping
    - § Throwing
    - § Pedaling
- Equipment provides skill development at multiple levels
- Enough equipment that children do have to wait long to play
- Equipment is in good repair
- Equipment is appropriate for the age and ability of the children
- Adaptations are made for children with disabilities[12]

References

[1] Image by Community Playthings is used with permission

[2] Image by Community Playthings is used with permission

[3] The Integrated Nature of Learning by the California Department of Education is used with permission (pg. 24-29)

[4] Child Care Center General Licensing Requirements is in the public domain

[5] MiraCosta College (n.d.). Preschool Environment Checklist. Retrieved from https://www.miracosta.edu/instruction/childdevelopmentcenter/downloads/5.2PreschoolEnvironmentChecklist.pdf

[6] Image by Staff Sgt. Nathan Bright is in the public domain

[7] Image by the U.S. Department of Health and Human Services is in the public domain

[8] Image by Community Playthings is used with permission

[9] Image by Community Playthings is used with permission

[10] Image by Jim Triezenberg is licensed under CC BY 3.0

[11] Child Care Center General Licensing Requirements is in the public domain

[12] MiraCosta College (n.d.). Preschool Environment Checklist. Retrieved from https://www.miracosta.edu/instruction/childdevelopmentcenter/downloads/5.2PreschoolEnvironmentChecklist.pdf

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5.8: Temporal Environment - The Daily Schedule

One feature of a well-organized classroom is the use of a schedule and established routines. Schedules and established routines are important because they influence a child's social and emotional development. While referred to as the daily schedule, it is important to recognize that the flow, or the predictable order of the day, should be the focus (rather than abiding by rigid timelines for the different parts of the day). While there may be parts of the day that at are at fixed times (for example meals or using a shared outdoor space), teachers should use flexibility to make the schedule meet the needs of the children. If an activity seems to be coming to a natural conclusion earlier, consider transitioning to the next part of the day. If children are really engaged in an activity, consider giving them additional time to wrap up their exploration. Flexibility also comes in handy when there are changes that affect the schedule that are beyond your control, such as bad weather preventing outdoor play.[1]

Why Have a Daily Schedule?

Schedules are important because they

- Help children know what to expect:
  - Schedules and routines help children understand the expectations of the classroom environment—which may be very different than in other settings.
  - Knowing expectations may lower behavior problems.
- Enhance feelings of security:
  - Predictable and consistent schedules in preschool classrooms help children feel secure and comfortable.
  - Those children who have difficulty with change especially need to feel secure.
  - Children who do not yet speak and understand English well also benefit from predictable and consistent classroom schedules and routines.
- Influence a child's cognitive and social development:
  - When periods of play are longer, children engage in more complex social and cognitive play.
- Increase child engagement rates:
  - Child engagement is defined as the amount of time a child spends interacting with his or her environment (adults, peers, or materials) in a developmentally and contextually appropriate manner, at different levels of competence.
  - Schedules that give children choices, balanced activities, planned activities, and individual activities result in a higher level of engagement.

Several factors influence child engagement.

- Attention span of children:
  - Plan activities to maximize children's engagement:
    - § Use other adults to assist.
    - § Use novel materials.
  - Limit duration to ensure children stay engaged throughout the activity.
- Alertness level:
  - Plan activities that require more child attention and listening skills during times when children are more alert.
  - Plan calming activities after active activities.
  - Note if some children may be tired or sick.
- Adult availability:
  - For a more active part of your day, you may want to have more adults to support the children's learning and the management of the classroom.
- Time for children's needs—allow enough time for children to fully engage and benefit from an activity. When children engage in longer periods of play they:
  - Show higher levels of exploration, experimentation, and persistence.
  - Utilize materials in more creative ways.
  - Develop social relationships.[2]

Creating the Daily Schedule

The first component is “blocks of time,” the big chunks of time set aside for classroom activities. Preschool schedules typically include:

- Large group or circle time
- Child-initiated play time
- Snack time and meals
- Outdoor time
- Rest time

The next component is the sequence. Sequencing the blocks of time requires taking into consideration multiple factors including:

- Method of arrival/departure (bus or transportation provided by families)
- Schedules of other classrooms (e.g., which classroom goes outdoors at what times?)

Schedules include some of the daily routines such as meal times, but may not include others such as bathroom breaks or clean up routines.



Figure 5.11: This is a visual schedule that shows children images of the different parts of their day.[3]



Figure 5.12: Here is a schedule that combines visual cues, written times, and text descriptions.[4]

Finding Balance in the Schedule

When planning the schedule you want to provide balance. This includes:

- Alternating active with quiet activities to help children with self-control.
- Having a mix of small group and large group activities.
- Having activities that differ in noise level, pace, person leading (child vs. adult), and location (indoor vs. outdoor).
- Having a mix of teacher-guided and child-initiated activities.[5]

Child-Initiated Play and Teacher-Guided Activities

The daily schedule balances child-initiated play and teacher-guided activities. The latter involves teachers planning, introducing, and guiding specific activities to enhance children’s learning during small- and large-group times. In contrast, child-initiated play refers to children’s responses to ideas and materials introduced by teachers that the children are free to explore without teacher guidance. Child-initiated play also includes those times when children create, organize, and engage in activities completely on their own.

A daily schedule that ensures ample time for children to initiate their own play in well-developed interest areas is critical to the teaching and learning. Young children need ample time to engage in play, in the company of peers, in order to build their ideas, to pose problems, to try out solutions, and to negotiate and exchange ideas. When children initiate, organize, and develop their own

play in the interest areas, it is called child-initiated learning. At times, children choose to play alone, but frequently, child-initiated play takes place in small groups of their own choosing.

In a schedule with ample time for children to initiate play in well-stocked interest areas, there are times when teachers organize and guide specific activities for children. Such teacher-guided curriculum activities are clearly distinct from child-initiated curriculum activities. Teacher-guided activities occur in two contexts—small groups and large groups. A small group would consist of one teacher working with a group of four to eight children. A large group is typically a gathering of all the children in an early childhood setting. Each context serves a different purpose and requires different preparation and different teaching strategies.

For some aspects of the curriculum, teachers may choose to organize an activity with a small group of children. Although initiated and guided by the teacher, an effective small-group encounter of this nature should still be rich in possibilities for children to contribute and negotiate ideas with each other. Teacher-guided activities in small groups work best in quiet spaces away from distractions of the full group and provide a manageable context for children to discuss and explore ideas and experiences. The teacher listens to children's ideas, helps orchestrate the give-and-take of ideas among children, and poses ideas or problems for children to wonder about, explore together, or even solve. Away from the distractions of a large group, teachers can easily observe, listen, and converse with children in a small group, as well as note how individual children think, express ideas, relate with others, and use their emerging skills.

Such teacher-guided conversations can enrich children's learning in all domains, particularly the children's language and vocabulary development. In addition, teachers can intentionally guide the development of specific skills by planning small-group activities (e.g., songs, games, shared reading) for short periods of time that playfully engage children in using specific emerging skills.

Small-group activities have several advantages over large-group activities. With small groups of children, teachers can readily observe, listen, and document children's developmental progress. Teachers can also individualize the curriculum and use questions or prompts to scaffold each child's thinking in more complex ways.

Whether the activities are child-initiated or teacher-guided, children's use of materials in interest areas provide teachers with excellent opportunities to observe how they build concepts and skills and how they negotiate ideas with others. Moments of observed play and interactions also provide teachers with ideas on how to extend children's exploration and learning through future encounters with related materials that add novelty, challenge, and complexity in each domain.

Large groups provide another context for teacher-guided activities. The large group—typically a gathering of the entire class—works well for singing, acting out songs and stories, playing games, sharing experiences with each other, telling stories, building a sense of community, and organizing the daily schedule and activities. Storytelling is one of the more popular large-group experiences, one that has rich potential for adding to children's understanding about the world around them. Storytelling allows teachers, children, family members, as well as storytellers from the community to tap into and build children's knowledge and experiences in meaningful ways. Large-group time is also when teachers let the whole group of children know what new experiences will be available in the interest areas or what will happen in small groups that day. Large-group gatherings that occur at the end of the day provide opportunities to review noteworthy happenings and to anticipate what will be available the next day.[6]

Here are some examples of daily schedules for preschool classrooms.

Table 5.1: Half-Day Program Sample

Time of Day	Routine/Activity	Description
8:00	Arrival/Greetings	Wash Hands, Sign-in, Get Name tags
8:05-8:20	Group Time	Welcome, Songs, Stories, Discussions
8:20-9:30	Open Choice Time Outdoors	Explore classroom areas
9:30	Clean-up	Wash Hands, transition to indoors
9:35-10:45	Snack/Open Choice Indoors	
10:45	Clean-up	
10:50-11	Closing Circle	

Table 5.2: Full Day Program Sample Daily Schedule[7]

Time of Day	**Routine/Activity**	**Description**

Time of Day	Routine/Activity	Description
8:00	Arrival/Greetings	Wash Hands, Sign-in, Get Name tags
8:05-8:20	Group Time	Welcome, Songs, Stories, Discussions
8:20-9:30	Open Choice Time Outdoors	Explore classroom areas
9:30	Clean-up	Wash Hands, transition to indoors
9:35-11:00	Snack/Open Choice Indoors	
11:00	Clean-up	
11:10-11:25	Story Time	Transition to wash hands for lunch
11:30-11:50	Lunch	
11:50	Explore books on rest Mats	
12:10-2:00	Rest Time	
2:00-3:15	Indoor Choice Time/Snack	
3:15	Clean-up	
3:20	Large Group Circle	Games, Songs, Stories
3:40	Explore Outdoors	
5:00	Clean-up	
5:05	Indoor Small Group/Choice Centers	Fewer areas open

Routines and Rituals

Schedules define the whole day, whereas routines are more specific sets of regularly occurring behaviors. Routines provide some security and a sense of what comes next; children are able to anticipate what will happen, and thus feel more secure.

Daily routines and rituals also provide a second context for curriculum. They offer possibilities for children to use their emerging skills and to apply emerging concepts and ideas. Early childhood daily routines include arrivals and departures, mealtimes, naptimes, diapering, toileting, dressing, handwashing, tooth-brushing, and transitions between one place and another. They also include rituals such as sign-in sheets, health checks, waiting lists, attendance counts, dictated stories, reminder notes, or voting.

Children sit down for a meal, wash their hands, and put jackets and shoes on hundreds of times in order to provide excellent opportunities for children to use and build emerging skills and concepts. In group care, the care routines during arrivals, departures, meals, naps, diapering, toileting, and dressing provide excellent opportunities for children to use and challenge their emerging skills and concepts. When an infant whose diaper is about to be changed hears her teacher describe what it is she is about to do, the infant experiences a flood of words, which eventually become an anticipated phrase that gives meaning to a familiar experience. When this same infant hears a request to put his arm into the sleeve of a shirt, he is invited to demonstrate that he has understood this phrase and experiences the joy that comes with sharing meaning with the teacher. When a preschool child looks in anticipation each morning at the helper chart to see what job she gets to do that day, they are invited not only to cooperate in the care of the classroom, but also to build their emerging skills in understanding the meaning of print that accompanies the photo or drawing. Care routines are natural opportunities for children to engage in learning. Therefore, teachers plan the routines of care and the daily rituals that pepper the day in ways that invite children to be active participants and to use and build their emerging skills and concepts in meaningful situations.[8]

A vignette featuring toddlers shows the kind of learning that occurs in another routine:

Vignette

Four toddlers are seated at a low table for lunch. Their primary care teacher sits with them at the table. To his right, on a low bench, the primary care teacher has a bin that holds everything he needs for the meal. He pulls out bibs for each toddler and helps each toddler put one on. Each toddler finds a cube chair to sit in. The teacher puts an empty bowl in front of the toddler on his left. He offers this toddler a pair of small plastic tongs, holds a plate of small sandwiches, and asks, “Would you like to take a sandwich?” The toddler grabs the tongs and, after a few trials, manages to pick up one of the sandwiches and drop it

onto his plate. Later, after each toddler has taken a sandwich, the teacher pulls from the bin a clear plastic measuring cup, on which a red line is drawn at the one-cup mark. He fills the measuring cup to the red line. He places an empty glass in front of a toddler and, offering the toddler the measuring cup, says, “Would you like to pour?” The toddler wraps his hand around the handle and tips the cup over his glass. He spills a bit at first, but adjusts his hand and manages to empty the measuring cup. He looks up at the teacher and smiles. The teacher smiles in response, saying, “You poured your milk, Stephan! You know how to do it!” The toddler seated next to Stephan reaches for the empty measuring cup. The teacher says, “And now you can pour milk into your glass, Alexi. I’ll put the milk in the measuring cup first.”[9]

[10]



Transitions

It is important to focus on creating and managing smooth transitions between activities in the classroom. Reasons to address transitions between activities in early childhood classrooms include:

- Transitions take up a great deal of time in preschool classrooms.
- During transitions, children often spend a lot of time waiting (e.g., waiting until everyone has finished their snack, waiting for everyone to clean up before beginning large group time). All of this time waiting with nothing to do can lead to unrealistic expectations and challenging behaviors.
- Some children (and adults) have stressful and frustrating experiences during transitions between activities (e.g., children arguing over who took out what toys and who should put them away; children not knowing where to put certain toys when they are done with them; children not knowing what to do, children not knowing expectations for the transition).
- Many preschool teachers and other caregivers consider children’s ability to independently make transitions between activities one of the essential skills needed in group contexts such as preschool and kindergarten.[11]

Supporting Successful Transitions

There are numerous strategies that can be used to ensure well-organized transitions between activities. These include strategies you use before the transition, during the transition, and following the transition.

- Before the Transition
  - Plan your daily schedule to include the minimal number of transitions that occur over the course of the day. Minimize the number of transitions in which all children have to do the same thing at the same time (e.g., Do all children have to go to the restroom at the same time? Can some children come over to the rug and sing a song or read a book, while other children finish an activity?).

- Plan for what adults will do during transition times (e.g., Which adult is responsible for greeting the children? Who will begin looking at books on the carpet with children?).
- Teach children the expectations for the transition routine. Teaching children how to clean up and how to line up will reduce the length of transition times. By reducing transition times, more time is available for children to spend in other learning activities. As children become familiar with the expectations, problem behaviors are less likely to occur.
- Provide verbal and nonverbal cues before transitions (e.g., “Five minutes ‘til snack. It’s almost time for clean-up,” show pictures of the next activity, beat a drum). Once a transition cue has been established, the cue should be used consistently to signal the transition.

- During the Transition
  - Engage children in transition activities (sing songs, play word or guessing games, recite rhymes, organize finger plays). Transition activities provide children with an activity to complete while other children are still transitioning. These activities also encourage children to finish their previous task, so that they can play the game or sing the song. During these activities, skills related to the transition can also be taught (e.g., setting the table for snack or lunch, sorting toys during clean-up time).
  - Allow children adequate time to finish projects or activities so they do not become frustrated by activities ending too soon. Give them a warning that it is about time to change activities.
  - Plan something to engage those children who finish an activity quickly, so they are not waiting without anything to do (e.g., if some children finish cleaning up and getting to large group quickly, they might look at books while waiting for other children to finish cleaning up).
  - Individualize support to accommodate individual children’s needs.
    - § Photos to help anticipate what activity is next.
    - § Directions given in a child’s home language or sign language.
    - § An individual warning to a child that it will soon be time to clean up and begin a new activity.
- Support may need to be individualized (i.e., one child may need an adult to provide a five-minute, three-minute, and one-minute warning before clean up while the rest of the class might need only a three-minute warning).
- After transitions
  - Provide positive attention and feedback to children following transitions.
    - § When children pick up toys without much prompting, share with them how this shows how well they take care of the classroom materials.
    - § When children are working together to accomplish the task more quickly, let them know how much you appreciate their teamwork (e.g., “Nicholas and Jorge did a great job cleaning together and moving to the carpet”).

You can also work to promote independence during transitions by

- Allowing children to move individually from one area to another area when they complete an activity (e.g., as children finish snack, they are encouraged to go to the carpet and choose a book; as children finish putting away their coats and backpacks, they are encouraged to get a puzzle).
- Teaching children to help others (e.g., have children move as partners from one activity to another, or ask one child to help another child gather his/her backpack).
- Helping children self-monitor during transitions (e.g., children can be asked to think about how quietly or quickly they moved from one activity to another).

The following vignette offers an opportunity to watch and listen for the learning that occurs during a transition routine and to reflect on the planning that had to occur in order for this experience to play out as it did.

Vignette

Ms. Cone had used the children’s name tags in transition activities for quite some time, at first pointing out and naming the first letter in each name as she called children to go wash hands or to get their jackets before going outside. Somewhat later, she held up each of the nametags and pointed to the first letter as she asked the child to name it. Today, she is using the first sounds in names to send a few children at a time from the circle time area to wash hands for lunch: “If your name starts with /k/, you may go wash your hands. Yes, Connie and Carolina, you may go to the sink. Both of your names start with the /k/ sound.” Cindy sees Connie and Carolina stand up, and she stands up too. Ms. Cone explains that Cindy begins with the /s/, not /k/ sound, and that she’ll get a turn soon. Cindy says, “I’m a C too!” Ms. Cone says, “Oh, you are right. Your name begins with the letter c like Connie and Carolina, but it starts with a different sound. We hear /k/ at the beginning of Connie and Carolina

> —/k/ Connie, /k/ Carolina. We hear /s/ at the beginning of your name—/s/—Cindy. I'm going to say that sound next: 'If your name starts with /s/, you may go wash your hands.'" Sabrina stood up, joined hands with Cindy, and they walked to the sink together.[12]

Built into this large-group gathering is a dismissal ritual that takes full advantage of young children's interest in their names and the names of their friends. As part of this dismissal ritual, the teacher invites children to use their emerging skills in distinguishing the distinct sounds of language, described in the language and literacy foundations as phonological awareness. She embeds this learning in the context of a game, one that inspires children to listen carefully to the sounds spoken in instructions for inviting small groups of children to wash hands. The transition from large group to the sink area goes much more smoothly as a result, and in the process, children get to use an important emerging skill.

References

[1] Guide to Managing the Classrooms: Schedules and Routines by the U.S. Department of Health and Human Services is in the public domain;

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[2] Guide to Managing the Classrooms: Schedules and Routines by the U.S. Department of Health and Human Services is in the public domain

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[4] Image by the U.S. Department of Health and Human Services is in the public domain

[5] Guide to Managing the Classrooms: Schedules and Routines by the U.S. Department of Health and Human Services is in the public domain

[6] California Preschool Curriculum Framework, Volume 3 by the California Department of Education is used with permission

[7] Based on the College of the Canyons Early Childhood Education Sample schedule

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[10] Tips for Teachers by the U.S. Department of Health and Human Services is in the public domain

[11] Guide to Presenting Managing the Classroom: Classroom Transitions by the U.S. Department of Health and Human Services is in the public domain

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CHAPTER OVERVIEW

6: Guiding Behavior and Managing the Classroom

Learning Objectives

At the end of the chapter, students should be able to:

- Identify factors that influence behavior
- Discuss the role of teachers in guiding behavior
- Explain influences on behavior
- Summarize principles of positive guidance
- Describe guidance strategies to use for children with disabilities
- Apply positive strategies to address behaviors

Social-emotional development is foundational to children's learning in all other domains. Through children's experiences in close relationships with parents and teachers, children develop and learn the social-emotional skills necessary to act and interact with self-confidence, regulate their behavior, and be successful in the early school years and beyond. With the guidance of responsive and caring adults, "young children develop an understanding of other people's feelings and needs, are encouraged to feel empathy and caring, learn to manage their own behavior as responsible group members, and acquire a variety of other capabilities that will be directly related to their success in managing the classroom environment of kindergarten or the primary grades" (CDE 2008, 4). [1]

6.1: The Teacher's Role - Build and Maintain Positive Relationships with Children
6.2: Factors that Influence Behavior
6.3: Redirecting Behavior
6.4: Addressing Challenging Behavior
6.5: Moving from Praise to Acknowledgment - Providing Children with Authentic Support

References

[1] California Preschool Program Guidelines by the California Department of Education is used with permission (pg. 24)

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6.1: The Teacher's Role - Build and Maintain Positive Relationships with Children

Teachers build meaningful relationships with children during day-to-day interactions with them. Since relationships are central to young children's learning and development, effective preschool teachers engage in consistent efforts to develop positive and nurturing relationships with each child they serve. Preschool teachers understand the importance of consistency, continuity, and responsiveness in supporting children's healthy social and emotional development (adapted from California Department of Education and First 5 California 2012, 121). In cases in which children display challenging behaviors, teachers can focus even more directly on cultivating a relationship with the children during less stressful times (when children behave appropriately) and rely on additional support through ongoing mentoring and coaching (e.g., reflective supervision, early childhood mental health consultation) to put in place effective strategies to establish and sustain positive relationships with young children. When teachers engage in positive, nurturing relationships with young children, children feel safe and confident to engage deeply in exploration and learning. For those children who come to the classroom displaying challenging behaviors, nurturing, stable, and positive relationships with teachers often help to provide them with the emotional support needed to develop future positive relationships with teachers and peers (Buyse et al. 2008).[1]

Development is often referred to as a journey, not a race. Children navigate their journey through individual rates of development. Along the journey, there are many milestones and developmental successes to celebrate, but alongside these celebrations there are behavioral considerations that challenge children and their caregivers. Teaching young children is not just about creating an environment and a curriculum, but also providing limits, clear expectations and applying developmentally appropriate strategies to guide young children in navigating their journey. Most importantly, teachers must also demonstrate a sensitivity to a variety of children's needs, temperaments and learning styles.[2]

References

[1] California Preschool Program Guidelines by the California Department of Education is used with permission (pg. 39-40)

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6.2: Factors that Influence Behavior

There are many factors that influence the behaviors of children. It's important for teachers to keep these in mind as they observe, interpret, and respond to children's behaviors.[1]

Developmental Factors by Age

While each child develops at their own rate and in their own time and may not match every listed item, here are some general descriptions of children by age:

1-2 Year Olds

- Like to explore their environment
- Like to open and take things apart
- Like to dump things over
- Can play alone for short periods of time
- Still in oral stage, may use biting, or hitting to express their feelings or ideas

2-3 Year Olds

- Need to run, climb, push and pull
- Are not capable of sharing, waiting or taking turns
- Want to do things on their own
- Work well with routine
- Like to follow adults around
- Prolong bedtime
- Say "no"
- Understand more than he/she can say

3-4 year Olds

- Like to run, jump, climb
- May grow out of naps
- Want approval from adults
- Want to be included "me too"
- Are curious about everything
- May have new fears and anxieties
- Have little patience, but can wait their turn
- Can take some responsibility
- Can clean up after themselves

4-5 Year Olds

- Are very active
- Start things but don't necessarily finish them
- Are bossy and boastful
- Tell stories, exaggerate
- Use "toilet" words in a "silly" way
- Have active imaginations

5-6 Year Olds

- Want everything to be fair
- Able to understand responsibility
- Able to solve problems on their own
- Try to negotiate[2]

Table 6.1: Positive Approaches for Developmental Factors[3]

Ages/Stages	Developmental Factors	Examples of a Positive Approach to developmental factors to manage behavior

Ages/Stages	Developmental Factors	Examples of a Positive Approach to developmental factors to manage behavior
Infant/Toddler	Children this age: • Actively explore environments • Like to take things apart • Have limited verbal ability, so biting or hitting to express feelings is common • Like to dump things over	Children in this stage tend to dump and run, so plan games to enhance this behavior in a positive way. Have large wide-mouth bins for children to practice "dumping items" into and out of. This strategy redirects the behavior of creating a mess into a structured activity to match the development.
Older Toddlers	Children this age: • Need to run, climb, push and pull • Are incapable of sharing; waiting or taking turns • Express beginning independence • Work well with routines • Say "no" often • Comprehend more than they can verbally express	Teachers of this age often find children trying to climb up on tables, chairs and shelves. Incorporate developmentally climbing equipment and create obstacle courses to redirect activity into positive behaviors. Avoid using the word "no" and create expressions that teach what to do instead of what not to do.
Young Preschool (3-4 years)	Children this age: • Like to be active • Are curious and ask many questions • Express new fears and anxieties • Have little patience • Can clean up after themselves • Can take some responsibility • Seek adult approval	Young preschoolers become curious and create many misconceptions as they create new schemas for understanding concepts. Listen to ideas sensitively address them quickly and honestly. Model exploration and engagement in new activities (especially ones they may be fearful of engaging in)
Older Preschool (4-5 years)	Children this age: • Are highly active • Can be "bossy" • Have an active imagination • Exaggerate stories • Often use "toilet words" in silly ways • Start things but don't always finish	Ask the children to create new silly, but appropriate words to represent emotions rather than focusing on the "bad" words they use.
Young School-Age	Children this age: • Are able to problem solve on their own • Begin to understand responsibility • Think in terms of fairness • Attempt to negotiate	Fairness is a big issue for this group so working with this age group, a teacher should sit with children to develop "rules" and "consequences" so they can take ownership of behavioral expectations

Environmental Factors

- Weather
- Adequate Play Space
- Room Arrangement
- Materials Available (not enough)
- Peers they interact with
- Parent/child relationship
- Sibling Relationship
- Relationships with friends
- Daily Routine (Rushed, busy, not enough time to play, run or exercise)
- T.V. Exposure (screen time- amount and quality)
- Lack of Sleep
- Nutrition[4]

Table 6.2: Positive Approaches for Environmental Factors[5]

Area	Approach
Weather	Plan for alternate gross motor experiences during inclement weather Provide flexibility in the daily routine to accommodate weather extremes
Adequate Play Space	Ensure the space provided for each center/learning area is adequate If there is crowding, look at the messages the space is giving the children about how many can play there Make sure you are using all the spaces of the classroom effectively (is the unused space in the center of the room?)
Room Arrangement	Separate active/boisterous spaces from those that are quiet Watch that you don't create "runways" and "islands" to run around Provide protection for children's creations (try to avoid creating walkways through spaces where children are engaged) Put messy spaces where it is easier to clean up (near sinks and on flooring that can be easily cleaned)
Materials	Especially for younger children, have duplicates of popular toys Make sure that there are enough materials to ensure that children always have new choices available (without waiting) Ensure that they are stored in an organized way Make them accessible to children to get out and put away independently
Relationships	Support children's relationships and attachment to their families/parents Support relationships between children in the classroom Build a strong sense of classroom community Facilitate problem-solving and conflict-resolution
Technology	Create a policy on the use of screen media in which technology is used as a learning tool (rather than entertainment)
Basic Needs (sleep, nutrition, etc.)	Schedule adequate rest time for children and create a peaceful environment for resting Serve nutritious snacks and meals for children that are offered every couple of hours Consider how to provide for children who are sleepy and hungry at other times of the day

Individual Factors/Personal Styles

- Temperament (Easy, Difficult, Slow to Warm)
- Learning styles/personal uniqueness

Social Emotional Needs

- To feel loved
- To be included
- To feel important
- To be heard
- To feel valued
- To feel safe
- To have friends[6]

Positive Approaches for Individual Factors, Personal Styles, and Social/Emotional Needs

Young children communicate their needs and wants through behaviors. Educators and parents can observe children's behavior and look for clues about what it means. Since families know their children best, early childhood educators can ask families about their children's behaviors and what they notice at home. Sometimes, the behavior's meaning is clear to adults. Other times, educators and parents need to try different responses and watch the child's reactions. Over time, adults will likely improve in responding effectively to a particular child's communications.[7]

Motivation behind Behavior

In order to respond effectively to children's behaviors and to extend positive relationships with children, it's important to understand the motivation behind children's behaviors and then match your approach.[8]

Table 6.3: Motivation[9]

Motivation	Approach
Attention - Positive or Negative	Provide positive attention
Power - To be the "boss"	Provide many opportunities for choice making (choices you can live with) and practice decision-making
Revenge - Children that are hurt want to hurt others to feel important	Acknowledge intense feelings and stay positive
Inadequacy - Children don't want others to expect anything from them for fear of failure	Provide opportunities for positive success

Having Appropriate Expectations for Behavior

It is really important that we realize that often what adults consider to be challenging behaviors are entirely age-appropriate responses from children. So it is important that teachers:

- Respond adaptively to individual children, considering each child's age, temperament, language, communication skills, culture, interests, and abilities.
- Examine their own expectations of "appropriate" and "safe" behavior, looking for potential bias toward gender or developmental skills.[10]

[11]

Challenging behavior can often be addressed through prevention strategies. For children with disabilities who have challenging behavior, the process is the same as for all children, but the strategies might differ depending on children's Individual Education Plans (IEPs) and their specific needs and strengths. The following strategies can be individualized as needed.

Classroom schedules and routines:

- Have consistent schedules and routines
- Make sure the content and length of activities are developmentally appropriate
- Be intentional about using visuals to teach routines
- Give consistent feedback
- Provide more individualized support for children with disabilities who have challenging behavior during routines. They may need an individualized visual schedule or a peer buddy, for example.

Transitions:

- Try to minimize the number of transitions
- Teach expectations
- Model or provide visual examples of appropriate things to do while waiting (counting, singing a group song, playing Simon Says)
- Allow children to transition at separate times or in smaller groups as needed

Large Group Activities:

- Consider the length of the activity (especially circle time). Is it age appropriate?
- For children who are working on expanding their attention, shorten wait times and allow breaks.
- Use visuals to make rules clear and to break tasks into smaller steps
- Provide ongoing feedback to expand children's understanding, participation, and learning

Types of Supports

- Visuals
  - To help children communicate their needs
  - To break down tasks
  - To clarify expectations

- Timer
  - To provide a safety signal so children know when something is coming to an end
- Adult support
  - To facilitate large group and small group activities
  - To model and provide examples, and help children who need more intensive support
  - To provide choices
- Peer support
  - To model, think-pair-share, or be a buddy
- Child preferences
  - To increase children's motivation and engagement in tasks that can trigger challenging behavior

Involving Children in Guidance Curriculum

It is a valuable learning experience to involve children in creating/defining the classroom rules. They become invested in those expectations. Teachers should use the following umbrella when creating classroom rules:

- Keep self safe: (walk inside, feet on the floor, etc…)
- Keep others safe: (keep hands to themselves)
- Keep materials/environment safe: (keep books on the shelf to prevent tearing, throw balls, dig with shovels, etc…)

[10]

Classroom Teaching Strategies for Positive Interactions and Prosocial Behavior[12]

Instruction is more effective when it is embedded in the meaningful activities and contexts that occur throughout a child's day (Katz & McClellan 1997). Here are suggestions and examples for teaching social skills within classroom activities.

Modeling. Demonstrate the skill while explaining what you are doing. As you pass a block to a child, say, "Look, I am sharing my blocks with my friend."

Modeling with puppets. Use puppets to model the skill while interacting with a child, an adult, or another puppet. A puppet can explain to the teacher and the class how she became angry and hit her brother to get a toy. You can ask the puppet to consider other solutions and then discuss what a child might do when he or she wants a toy that another child is using.

Preparing peer partners. Ask one child to show another child the skill or to help the child use the target skill. You can prompt the peer by saying, "Carmen, Justin is still learning how to wait and take turns. Since you know what to do, can you help him? Show him the line-up picture while you wait for a drink at the water fountain."

Singing. Introduce a new skill through a song. To teach children to trade toys, pass out small toys during a large group activity, then sing the following song to the tune of "Mary Had a Little Lamb" and practice trading:

I can be a problem solver, problem solver, problem solver, I can be a problem solver, let me show you how.
Maybe I can trade with you, trade with you, trade with you, Maybe I can trade with you; let me show you how.

Children then practice trading toys with each other.

Doing fingerplays. Introduce the skill with a finger- play, then follow up with a discussion or story. While showing fingers, have children recite this rhyme:

One little friend cried, "Boo-hoo"; a friend gives a hug and then there are two.

Two little friends share with me; we play together and that makes three.

Three little friends ask for more; they all say "Please," and then comes four.

Four little friends take turns down the slide; another comes to play, and that makes five.

Five little friends have fun at school, because they follow every rule.

Using a flannel board. Introduce a new skill using flannel board activities and stories. For example, to teach turn taking you could have flannel pieces for Humpty Dumpty and change the rhyme so that "All the king's horses and all the king's friends / Work as a team to put Humpty together again." As you say the rhyme, have the children take turns putting the pieces (castle,

bricks, Humpty Dumpty pieces, horses, and friends) on the flannel board. When you finish the rhyme, extend the activity by talking about how Humpty felt when he sat on the wall; when he fell; and when his friends helped put him back together.

Using prompts. Give a child verbal, visual, or physical prompts to use a skill during interactions and activities. When a child who has difficulty with initiating play interactions moves toward a group playing together, you might say privately, "Remember to use your words and ask to play."

Giving encouragement. Provide specific feedback when the child uses the skill. For example, describe what the child did: "You asked Joey for a turn. I saw that you two had a good time playing together." Encouragement can be verbal or a signal (a thumbs-up or high five).

Using incidental teaching. Guide the child to use the skill during interactions and activities. Quietly say to the child, "Quan, I see that you are very angry that all the trucks are being used. What can you do when you are angry? Let's go over the steps."

Playing games. Use games to teach problem solving, words that express feelings, identification of others' feelings, friendship skills, and so on. Place photographs of each child in a bag. Have the children take turns pulling a photo out of the bag and offering a compliment to the child in the photo.

Discussing children's literature. Read books to help teach friendship skills, feeling words, problem solving, and so on. While reading a story, pause and ask the children how a character in the story might feel or ask them to suggest ideas for solving the character's problem.

Stating Behavior Expectations

Behavioral expectations are the appropriate behaviors expected from children during specific activities and routines. By stating behavioral expectations in advance of activities, routines and transitions, we allow children more opportunities to be successful. When children clearly understand what we expect of them, they can more securely play and work within a set of parameters. Other benefits of teaching behavioral expectations are that it:

- Maximizes children's learning time. When we tell children our expectations ahead of time, we spend less time playing catch-up during the activity.
- Builds a common language. When we outline behavioral expectations for activities, routines and transitions, we help build a common language among the teachers and children. Using the same phrases during the same activities, help children to understand the meaning of the expectations (i.e., walking feet and putting breakfast dishes in the brown bucket).
- Provides a consistent message to children. Giving children mixed messages about what is okay and not okay detracts from learning and engagement over time. When we say, write, and model our message consistently to children, they are more likely to get it.
- Sets the stage for learning. Developing behavioral expectations before activities begin creates an atmosphere ripe for engagement and learning.
- Helps prevent behavior problems before they happen. When we tell children in positive ways what is expected of them before they act, we can more readily reinforce the behaviors we want to see, based on our stated expectations.[13]

Tips for Teachers – Stating Behavioral Expectations

Anticipate – Think through activities, routines, and expectations

Plan – Develop a plan to support appropriate behaviors by determining which behaviors you want children to use and which behaviors you do not want to see

Prepare children

- State expected behaviors in advance.
- Post expectations.
- Provide demonstrations.
- Use role play.
- Lead discussions.

Recognize appropriate behavior – give recognition and feedback

- Catch children following the expected behaviors.
- Make a statement about their effort.

> Encourage them to keep it up![14]

State What Children Should Do

1. Tell a child what to do instead of what not to do.
2. Show the child by modeling or using a picture of the action.
3. Clearly and simply state what you expect the child to do.
4. Remember that young children may use inappropriate behavior because they do not understand the social rules and/or because they are unable to consistently apply what they are in the process of learning.
5. Talk to young children using language they understand. Young children may not understand a word like “don’t” because it is a short word for “do not” and he/she may not know what the “negation” of a word means.
6. Encourage the child in a way that lets him/her know that he/she is exhibiting the desired behavior. Use positive, descriptive acknowledgement while the child is making an effort or is doing the desired behavior.
7. Some children will respond better to more subdued expressions, and acknowledging them in a “matter of fact” way might be more effective.
8. For the most part, be enthusiastic and generous with encouragement. Most children can never get enough!

Here are some examples:

Table 6.4: Stating What Children Should Do[15]

Avoid	Say/Model	Positive Descriptive Acknowledgement
Don’t run!	• Walk • Use walking feet • Stay with me • Hold my hand	• You’re holding my hand. That is so respectful. • You walked across the classroom. You made a safe choice. • You are walking beside me and keeping me company. That is so friendly!
Stop climbing!	• Do you need something up high? Let’s find a safe way to reach it.	• Wow! You have both feet on the floor! You are being safe. • You asked for help to get something, you are being careful.
Don’t touch!	• Look with your eyes • Keep your hands down	• You were really listening; you are looking with your eyes! • You kept your hands down. That is respectful.
No yelling!	• Use a calm voice • Use an inside voice • Turn the volume down	• You are using a calm voice! You look happy. • You are using a soft voice inside the classroom. How respectful.
Stop whining!	• Use a calm voice • Talk so that I can understand you	• You are talking so clearly! That is so helpful. • You told me with your words what was wrong. That is respectful. • You used your words. How respectful!
Don’t stand on the chair!	• Sit on the chair • Chairs are for sitting • Do you need something up high?	• Let’s find a safe way to reach it. • You are sitting on the chair. What a careful girl. • You were responsible when you sat in the chair. • You stood on the ladder. You chose to be safe.

Avoid	Say/Model	Positive Descriptive Acknowledgement
Don't hit!	• Gentle hands • Hands are for playing, eating, and hugging.	• When you used gentle hands you were being respectful. • You used your hands for clapping! You like being safe. • You are hugging her. What a friendly girl.
No coloring on the wall!!	• Color on the paper • Put the paper on the easel if you want to color standing up	• You put the paper on the easel. That is being responsible. • Wow. You are coloring so carefully. You are focused. • You are an artist standing at the easel.
Don't throw your toys!	• Play with the toys on the floor • Toys stay close to the ground • Please keep the toys on the table	• You are playing with the toys on the floor. So safe. • You decided to keep the toys on the table. You are respectful.
Stop playing with your food!	• Food goes on the spoon and then in your mouth • Say "all done" when you are finished eating	• You're using your spoon. You're being careful. • You said "all done." That is helpful. • You are eating your food using your spoon and fork. That is practicing manners.
Don't play in the water/sink!	• Wash your hands • If you're finished washing your hands, please dry them	• You washed your hands. What a healthy guy! • You followed the hand washing steps! You try hard.

[16]

The concept of time is very abstract for young children thus stating, "Clean up in five minutes" is not meaningful in terms of time. Suggested alternatives for directing clean up actions can include statements, "When the lights go off it will be time to clean up, "When you hear the ringing of the timer, it will be time to…"

To further gain cooperation in transitioning from one activity to another consider,

- Talking individually to children at their level so they can hear you and know you are addressing them in particular
- Allow them a space to place unfinished work to revisit at a later time
- Provide choices for cleaning up areas

Assign jobs each day for clean-up (book collectors, snack helper, etc…)

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6.3: Redirecting Behavior

Redirecting is a proactive teaching strategy used to address challenging behavior (something that interferes with learning and engagement in prosocial interaction) BEFORE it escalates or continues. Redirecting:

- Allows a teacher to guide children to engage in alternative behaviors that are more acceptable.
- Consists of instruction and simple cues teachers can easily embed into teachable moments throughout the day.
- Is one of multiple proactive teaching strategies teachers use in combination with other strategies (e.g., creating classroom rules, clearly stating expectations for classroom behaviors).
- Stops a child from engaging in a challenging behavior before it escalates.
- Re-engages a child with appropriate activities which is key to maximizing learning time.
- Maximizes learning time for all children in the classroom as they will not be distracted by the challenging behavior.

Teachers redirect challenging behavior by

- Minimizing attention to the challenging behavior.
- Providing a clear description of the behavior expected from the child (e.g., “You can ask for a turn nicely,” or “We play with the trucks by driving them on the carpet.”)
- Providing positive attention and/or feedback (e.g., “That’s playing with the trucks safely, Miguel! I see you are driving them on the carpet.”), or access to the desired material as soon as it is available.

Redirection can be used when a child

- is off task to redirect attention to the task.
- uses materials inappropriately to provide a reminder of how to use the materials properly.
- talks out of turn to help the child wait for a turn.
- gets upset by a situation to guide the child away from that situation, to address the child’s feelings, and to engage the child in an alternate activity

Four types of redirecting are most commonly used in the preschool classroom:

- **Verbal redirecting**: A teacher gives an instruction which distracts the child from the challenging behavior and directs him to a more appropriate activity.
- **Physical redirecting**: A teacher physically prevents a child from engaging in a challenging behavior and redirects her to an alternative or new activity.
- **Redirecting with a cue** that is visual or gestural (e.g., a picture or gesture).
- **Redirecting attention** to a positive model in a child’s proximity (proximal attention): For example, a teacher draws attention to a nearby child who is engaged in an appropriate behavior.[1]

References

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6.4: Addressing Challenging Behavior

Preschool children rely on guidance from their teachers to practice and eventually master the complex skills required to navigate social interactions with peers and adults. With guidance from caring adults in their environment, preschool children can develop a sense of competence, learn developmentally appropriate ways to socialize with peers, and resolve conflicts.[1]

Teacher's Role

As the adults that work with children on a daily basis and who form positive relationships with them, teachers have a critical role in addressing challenging behaviors. Teachers should:

- Observe and identify the emotions underlying challenging behaviors.
- Gather input from colleagues, other program staff members, and families
- to gain a greater understanding of the function or purpose behind children's challenging behaviors and to develop strategies—including self-reflection and peer-reflection—for addressing those behaviors.
- Share observations appropriately and respect confidentiality when discussions involve children and families.
- Implement strategies designed by colleagues, families, and other specialists to address children's challenging behaviors.
- Develop, modify, and adapt schedules, routines, and the program environment to positively affect challenging behaviors.[2]

Program's Role

Teachers also need support from their programs. Programs should:

- Provide support and professional development on the practices that are most likely to prevent challenging behaviors in young children, including strong relationships, supportive environments (including carefully planned transitions, schedules, and grouping), and teaching social–emotional skills to children.
- Provide professional development opportunities to staff and resources to families on the use of strategies to respond to challenging behaviors, including support from behavioral or developmental specialists, early interventionists, and mental-health professionals as necessary.[3]

Conflict Resolution

Conflict is a natural part of social interactions. Teachers can help children navigate conflict successfully by facilitating conflict resolution. Teachers should:

- Support children in expressing their emotions and negotiating conflict in developmentally appropriate ways.
- Model appropriate behavior for resolving conflicts.
- Refine and implement developmentally appropriate strategies to help children learn how to express emotions, negotiate conflict, and solve problems.
- Work with coworkers to utilize a similar and consistent process with children in the same classroom or environment.
- Engage colleagues and other program staff, children, and families in discussions around conflict resolution.[4]

[5]

Include the children directly involved and use these steps

1. Acknowledge there is a problem or conflict: What happened? How do you feel?

- ü Approach children calmly, take deep breaths, and acknowledge feelings
- ü Ask what happened and how do you feel?; hear from both children. This is about listening to each other

2. Ask for solution ideas

- ü See if the children have ideas first
- ü Get a "solution kit" if needed

3. Give it a try

- ü Get the children to signal agreement: thumbs up, hand shake
- ü You can state the solution again if needed and provide PDA (**Positive, Descriptive Acknowledgment)** for being flexible, being good at solving problems, asking for help, staying calm

4. Follow up with children, use PDA (Positive, Descriptive Acknowledgment)

It's important to see that the issue is resolved or that the children move on.

The Teaching Pyramid

Challenging behavior often indicates that a child is experiencing stress from a number of factors: internal stress from fatigue, poor nutrition, illness, pain or discomfort; external stress from a mismatch in the classroom environment or expectations, poor relationships with the teachers or children, overly difficult or overly simple tasks, limited social skills, trauma in the home environment; or a combination of these factors. A consistent and supportive teacher or other important adult can provide support for the child during short periods of stress. If challenging behavior continues over longer periods of time, it may be necessary to examine possible contributors to the behavior in the classroom and from other sources. A tiered intervention framework such as the Teaching Pyramid may be an appropriate response to challenging behavior.

The teaching pyramid model (Fox et al. 2003) describes a primary level of universal practices—classroom preventive practices that promote the social and emotional development of all children built on a foundation of positive relationships; secondary interventions that address specific social and emotional learning needs of children at risk for challenging behavior; and development of individualized interventions (tertiary level) for children with persistent problem behavior (see the diagram "The Teaching Pyramid").[6]



Figure 6.2: Promoting Healthy Social Emotional Development.[7]

Universal classroom practices include developmentally appropriate, child-centered classroom environments that promote children's developing independence, successful interactions, and engagement in learning. While universal practices may be enough to promote the development of social competence in the majority of children in the classroom, teachers may find that there are children whose lack of social and emotional skills or whose challenging behavior requires more focused attention.

According to the California Collaborative on Social and Emotional Foundations for Early Learning (CA CSEFEL), fundamental to promoting social and emotional competence in young children is guiding children in their efforts to build positive relationships with adults and peers and creating supportive social and emotional learning environments for all children. For children at risk of developing behavior problems, targeted social and emotional strategies may be necessary, and for those children who display very persistent and severe challenging and behavior problems, individualized intensive interventions are required, when the children do not respond to typical preventive practices, child guidance procedures, or social–emotional teaching strategies that would normally work with most children (CA CSEFEL Teaching Pyramid, Promoting Social and Emotional Competence, Module 3a, 2013).

Table 6.5: Addressing Children's Challenging Behavior [8]

Old Way	New Way
General intervention for all behavior problems	Intervention matched to purpose of the behavior
Intervention is reactive	Intervention is proactive
Focus on behavior reduction	Focus on teaching the child new skills

Old Way	New Way
Quick fix	Long-term interventions

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6.5: Moving from Praise to Acknowledgment - Providing Children with Authentic Support

The way teachers respond to positive behavior also has an impact. We can encourage children's efforts by providing specific acknowledgement rather than empty praise (which can either become meaningless or addictive for a child).

> *"The only lifelong, reliable motivations are those that come from within, and one of the strongest of those is the joy and pride that grow from knowing that you've just done something as well as you can do it." -Lloyd Dobens and Clare Crawford-Mason*

When a child has done something impressive, instead of saying, "Good job," try one of the following:

1. Report what you see (narrating).

A short, objective statement such as, "You put your dishes in the tub," or "You figured out a solution to the problem," acknowledges children's efforts and allows them to judge for themselves the merits of their achievement. Elaborate on the details of their actions to provide more specific feedback. For example, "It looks like you used blue and green to make an ocean."

2. Connect it with a desired character trait, value, or expectation (PDA: Positive, Descriptive Acknowledgment).

When a child does something that is an example of a character trait, value or expectation, add the expectations language to the comment. For example, if a child has put away toys on the floor say, "You cleaned up the blocks. You are keeping the area safe." Or if they helped a friend you might say, "You gave Yoon Seo the fire truck. That's being friendly." Expectations language provides definitions for the character words, builds self-efficacy (belief that you have the ability to succeed at a task), and helps the child to internalize the behaviors.

3. Emphasize the impact on others.

If a child does something caring or something that benefits the community, acknowledge the positive impact. For example, if a child has put away toys on the floor say, "You cleaned up the blocks. Now someone else can have a turn." Or if they helped a friend you might say, "You gave Yoon Seo the fire truck. He looks really happy to have it." Such language builds a sense of agency (ability to intentionally make things happen through your actions) by drawing the child's attention to the impact his/her actions have on another child.

4. Ask open-ended questions.

Being curious encourages the child to reflect. "What do you like best about your tower?" or "How did you know to put the puzzle piece there?" Asking open-ended questions builds language and engages the children in abstract thinking.

5. Say nothing.

When children are playing, we often feel the need to continually comment on their actions. This can be disruptive and can create an extrinsic motivation to explore. Let children take joy in their own learning and allow them to experience the pride of their own accomplishments.[1]

Planning for Guiding Behavior

The plans for guiding behavior, although typically not seen on a daily or weekly plan posted for all to see, will likely be found in the program manual. In a program manual, teachers and administrators explain strategies for guiding children's behavior to support learning how to get along respectfully and cooperatively with others. Short written handouts on common issues like sharing, biting, hitting, or name-calling are also useful ways to make visible to families how teachers support young children in getting along respectfully and cooperatively with others. (The CA CSEFEL Teaching Pyramid Web site at https://cainclusion.org/teachingpyramid/ is a resource that provides downloadable handouts on such topics in English, Chinese, and Spanish.) It is important that families see that such planning is part of the broad definition of curriculum. Families are integral to this planning, as they have their own perspectives on guiding learning and behavior. Collaborating with families opens up possibilities to help children learn expectations both at home and at school, because children are learning ways of being with others in both settings.

There will be times when social–emotional development and negotiating relationships between children take center stage in the written plan. For example, in a toddler classroom, several children might be learning the importance of not biting others when they

are upset. This behavior might become a focus for teacher reflection and curriculum planning for the group at large for several weeks. Teachers might decide to read stories to the children about things to do when angry. Or schedules may be adjusted to allow a teacher to shadow a child who tends to bite when upset. Teachers might also document over the course of several days to see if biting tends to occur at particular times.

Another example comes from a classroom of three-year-olds who are all new to the program. The term “cleanup time” may not make sense to the children, so the teachers plan opportunities when children can experience and discuss what this term means. It becomes the topic of discussion during a large-group gathering. It also takes on a special look during the cleanup that happens before lunch, as a teacher adds a new routine in which each child gets to pull from a basket a sign that says, “I cleaned” and carries it into the meal area. The idea of cleanup also gets written into a story, dictated by several children who are dismayed that not everyone was helping with cleanup. The teachers make time during large-group gathering to read the story. Prompted by the teacher’s suggestions, several children illustrate the story, which becomes part of a homemade book that finds a home in the book/story area.[2]

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Introduction to Planning for Preschoolers

Learning Objectives

By the end of this introduction, you should be able to:

- Summarize the developmental characteristics of preschoolers
- Explain what learning foundations are
- Describe the purpose of the curriculum frameworks
- Discuss the role of the Desired Results Developmental Profile
- Identify the domains that we categorize curriculum into for the purpose of learning about planning and implementing it

What Preschoolers are Like

In order to plan for children it is vital to begin with one aspect of developmentally appropriate practice, which relates to the developmental characteristics of children based on their age. Here are some representations of what children are like at each age in the preschool years. You can find more developmental milestones in Appendix E.



Figure 1: What Preschoolers are Like.

You will notice that consideration for the other two aspects of developmentally appropriate practice which are also critical to our work, understanding individual children and seeing children in the context of their families and larger culture, are included throughout each domain based chapter.

Using the California Preschool Learning Foundations, California Preschool Curriculum Framework, and Desired Results Developmental Profile

The following six chapters on planning curriculum for preschools have been compiled using the California Preschool Learning Foundations and the Preschool Curriculum Frameworks. These well-researched documents published by the California Department of Education can be used along with the Desired Results Developmental Profile (DRDP), to support implementing the curriculum planning process with young children.

Each of these resources fulfills an important role in the curriculum planning process:

- The Foundations are what we want children to learn and develop.
- The Curriculum Framework outline how teachers can support this learning and development.
- And the Desired Results Developmental Profile is a tool to assess children's learning and development and to inform programming.

California Preschool Learning Foundations

The foundations describe competencies—knowledge and skills—that most children can be expected to exhibit in a high quality program as they complete their first or second year of preschool. In other words, the foundations are destination points of learning that, with appropriate support, children move toward and often reach during the preschool years.

The foundations are designed to promote understanding of young children's development of knowledge and skills and to help with considering appropriate ways to support children's learning. In essence, the foundations serve as a cornerstone for educating practitioners about children's learning and development. The foundations are designed to be used in combination with other sources of information: formal educational course work on early learning and development, information on individual differences, including those related to disabilities, knowledge about the contribution of cultural and linguistic experiences to early development, and English-language development, insights from children's families, and the practical experiences of preschool teachers and program directors.

The support needed to attain the competencies varies from child to child. Many children learn simply by participating in high-quality preschool programs. Such programs offer children environments and experiences that encourage active playful exploration and experimentation. With play as an integral part of the curriculum, high-quality programs include purposeful teaching to help children gain knowledge and skills.

The foundations are at the heart of the California Department of Education's (CDE) approach to promoting preschool learning. Teachers use best practices, curricular strategies, and instructional techniques that assist children in learning the knowledge and skills described in the preschool learning foundations. The "how-to's" of teaching young children include setting up environments, supporting children's self-initiated play, selecting appropriate materials, and planning and implementing teacher-guided learning activities.



Figure 2: The materials for this shelf were carefully chosen and displayed to invite children to explore. Image by Jennifer Paris is licensed under CC-BY-4.0

Two major considerations underlie the "how-tos" of teaching. First, teachers can effectively foster early learning by thoughtfully considering the preschool learning foundations as they plan environments and activities. And second, during every step in the planning for young children's learning, teachers have an opportunity to tap into the prominent role of play. Teachers can best

support young children by both encouraging the rich learning that occurs in children's self-initiated play and by introducing purposeful instructional activities that playfully engage preschoolers in learning.

Professional development is a key component of early care and education in fostering preschool learning. The foundations can become a unifying element for both preservice and in-service professional development. Preschool program directors and teachers can use the foundations to facilitate curriculum planning and implementation. At the center of the CDE's evolving system for supporting young children during the preschool years, the foundations are designed to help teachers be intentional and focus their efforts on the knowledge and skills that all young children need to acquire for success in preschool and early elementary school—and throughout life.

Making Connections

Here's an example of a learning foundation from the Music strand of the Visual and Performing Arts Domain.

At around 48 months children:

3.3 Improvise vocally and instrumentally

This foundation will be connected to the CA Preschool Curriculum Framework and the Desired Results Developmental Profile 2015 later in this introduction.

California Preschool Curriculum Framework

Young children enter preschool with a sense of wonder and a love of learning. They have an insatiable appetite for knowledge when they have learning experiences that are engaging and enjoyable. Positive experiences in which children can make choices and explore help them feel competent and confident. How can we offer them engaging and enjoyable learning experiences that fuel their intellectual engines and build their confidence? How can we connect children's fascination with learning in every domain and make the most of their time in preschool? With these questions in mind, the California Department of Education (CDE) developed the curriculum framework for preschool programs, which include any early childhood setting where three- to five-year-old children receive education and care.



Figure 3: Some of the most engaging play is sensory-based. What might these children be learning here?

This curriculum framework provides an overall approach for teachers to support children's learning through environments and experiences that are:

- developmentally appropriate
- reflective of thoughtful observation and intentional planning
- individually and culturally meaningful
- inclusive of children with disabilities or other special needs.

The framework presents ways of setting up environments, encouraging and building upon children's self-initiated play, selecting appropriate materials, and planning and implementing teacher-guided learning activities. As preschool teachers plan learning environments and experiences, the foundations provide the background information to:

- understand children's developing knowledge and skills
- consider appropriate ways to support children's learning and development.

In essence, curriculum planning should offer children learning opportunities that are attuned to their developing abilities and their interests and should be connected with their experiences at home and in their communities.

In the National Association for the Education of Young Children's accreditation criteria, it is stated that a curriculum includes the goals for the knowledge and skills to be acquired by children and the plans for learning experiences through which such knowledge and skills will be acquired. A preschool curriculum typically defines a sequence of integrated experiences, interactions, and

activities to help young children reach specific learning goals. A curriculum framework provides general guidance on planning learning environments and experiences for young children. Thus, as a curriculum framework, this document provides:

- principles for supporting young children's learning
- an overview of key components of curriculum planning for young children, including observation, documentation, and reflection
- descriptions of routines, environments, and materials that engage children in learning
- sample strategies for building on children's knowledge, skills, and interests



Figure 4: This teacher is engaging in a planned activity with a small group of children.

Eight principles have guided the development of this curriculum framework. Grounded in early childhood research and practice, the following eight principles emphasize offering young children individually, culturally, and linguistically responsive learning experiences and environments:

1. Relationships are central.
2. Play is a primary context for learning.
3. Learning is integrated.
4. Intentional teaching enhances children's learning experiences.
5. Family and community partnerships create meaningful connections.
6. Individualization of learning includes all children.
7. Responsiveness to culture and language supports children's learning.
8. Time for reflection and planning enhances teaching.

The concepts and strategies described in the preschool curriculum framework require thoughtful planning and implementation. They are grounded in evidence-based practices that have evolved in the early childhood education field over decades. The ability to apply a broad understanding of early learning and development in the preschool setting takes time and experience. With appropriate professional development, preschool program administrators and teachers can use the curriculum framework to guide their planning and implementation of environments and experiences that allow all young children to prosper during the preschool years.

Making Connections

How do teachers use the Curriculum Frameworks to support children's development of the foundations? Here are some takeaways from the Curriculum Framework in Visual and Performing Arts domain that will support the example foundation "Improvise vocally and instrumentally" mentioned before:

A guiding principle:

- Children make their own meaning. Original, imaginative expression is a natural occurrence when children engage in the arts that is scaffolded by adults in an appropriate environment.

A basic needs for the environment and materials:

- It is important that music not be limited to prerecorded songs. Music is an active process. Music may be a little more demanding of specialized materials. A variety of rhythm instruments, such as wooden blocks, bongo drums, or hollow, hardwood boxes, can be used by children; little instruction is necessary. When these materials are not available, clapping hands and stomping feet can keep rhythm. Other musical instruments that may extend this collection include recorder-like wind instruments, shakers, stringed plucking devices, and so on.

Teachers can support music foundations by:

> [Providing] music areas where children can experience instruments or musical activities as individuals or in a small group.

Desired Results Developmental Profile (DRDP)

The Desired Results Developmental Profile (2015) is a developmental continuum from early infancy to kindergarten entry. It is a formative assessment instrument developed by the California Department of Education for young children and their families used to inform curricular decisions and program development. It was designed to improve the quality of programs and services provided to young children who are enrolled in child care outside the home.

Key Features of the DRDP 2015

- It is administered in natural settings through teacher observations, family observations, and examples of children's work. Ongoing documentation of children's knowledge and skills in everyday environments is a recommended practice for early childhood assessment. It is completed by the teacher who best knows the child.
- "[It] is written to facilitate observation during the developmentally age-appropriate play-based and instructional activities that are typical in high-quality programs."
- It represents a full continuum of development from early infancy up to kindergarten entry. It has two views: the Infant/Toddler view for use with children in infant/toddler programs, and the Preschool View, for children in preschool programs.
- It is designed for use with all children from early infancy up to kindergarten entry, including children with special needs.
- It is aligned with all volumes of the California's Infant/Toddler and Preschool Learning and Development Foundations, the Common Core Standards, and the Head Start Child Development and Early Learning Framework.
- It takes into consideration the specific cultural and linguistic characteristics of California's diverse population of young children, with specific consideration for children who are young dual language learners (see section below).
- It was developed with the goal of ensuring that all children have the opportunity to demonstrate their knowledge and skills. To enable access to the assessment for diverse populations, the principles of Universal Design were followed. It is embedded into program activities, not contrived activities.



Figure 5: Teachers can use opportunities like this group time to observe children's development as part of the assessment process.

The DRDP will be further explored in Chapter 17 on Documentation and Assessment.

Making Connections

> And to close the loop on these three resources, here is a measure in the Desired Results Developmental Profile (2015) Visual and Performing Arts domain that assesses where a child is currently at developmentally in relation to the example foundation, "Improvise vocally and instrumentally":
>
> VPA 2: Music – Child expresses and creates by making musical sounds, with increasing intentionality and complexity.

Dividing Development and Curriculum Into Domain

We know that children certainly do not develop in isolated domains (as the images earlier in this introduction might lead you to assume). Their development is holistic and the domains are interrelated. What happens in one domain or area influences and/or is influenced by what happens in other domains or areas. We also know that learning is integrated and that curriculum should reflect that. Children do not just learn about one curriculum area or domain. A spontaneous or planned experience will touch on numerous curriculum areas.

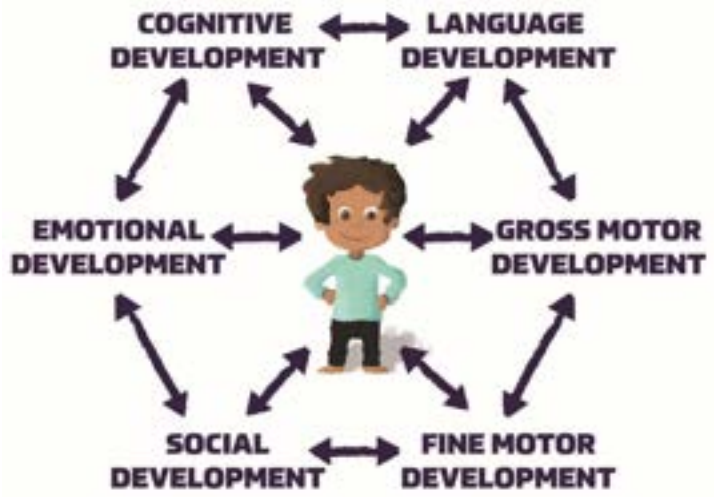

Figure 5: Domains of Development

But to make these domains easier to explore we study them separately, while keeping in mind that they are interconnected and interrelated.

The Preschool Learning Foundations and Curriculum Frameworks are divided into nine domains. Our book will feature these as eight separate chapters. This table summarizes how these are related.

Table 1: Curriculum Domains

California Resources Domains	Textbook Chapter
Social and Emotional Development	Social and Emotional Development
Language and Literacy	Language and Literacy
Mathematics	Mathematics
Science	Science
Visual and Performing Arts	Creative Arts
History-Social Science	History and Social Science
Physical Development	Physical Development
Health	Health and Safety
English Language Development	(not included)

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CHAPTER OVERVIEW

7: Social and Emotional Development

Learning Objectives

By the end of the chapter, you should be able to:

- Explain how social-emotional development lays the foundation for and is interrelated with all other domains and areas of development
- Describe the foundations in social and emotional development that high quality early childhood programs support
- Discuss how the environment contributes to children's social and emotional development
- Identify ways educators can support children's social and emotional development
- Summarize ways to engage families in curriculum for social and emotional development

7.1: Introduction
7.2: Guiding Principles for Supporting Social and Emotional Development
7.3: Environmental Factors in Supporting Social and Emotional Development
7.4: Introducing to the Foundations
7.5: Social Interaction

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7.1: Introduction

Social-emotional development indicates how preschool children acquire the social skills, self-awareness, and personal qualities that are interconnected with learning in a classroom. Why is social-emotional development important to early learning?

- Many social-emotional qualities—such as curiosity; self-confidence as a learner; self-control of attention, thinking, and impulses; and initiative in developing new ideas—are essential to learning at any age. Learning, problem solving, and creativity rely on these social-emotional and motivational qualities as well as basic cognitive skills.
- When learning occurs in groups, such as in preschool classrooms or family child care programs, the social environment significantly influences how learning occurs. When young children enjoy interacting with adults and other children, they are more enthusiastic about activities and participate more.
- The interest and enthusiasm of others fuels the child's own excitement about learning, and children are also motivated by others' acknowledgment of the child's accomplishments.
- Children who have been reported as having the greatest difficulties in learning are hindered by the lack of social-emotional qualities more than academic concepts.
- The developing brain is not neatly divided into separate areas governing learning, thinking, and emotions. Instead, it is a highly interconnected organ with different regions influencing, and being affected by, the others. This means, for example, that young children who experience emotional challenges (perhaps because of stress) are less ready for learning because the brain regions related to memory are being affected by other regions governing emotion. [1]



Figure 7.1: Working constructively with a peer takes a lot of social skills.[2]

Pause to Reflect

What is your reaction to the importance of social and emotional development to children's learning? Did you already know this information? Do you think most people are aware of this?

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7.2: Guiding Principles for Supporting Social and Emotional Development

Early learning is supported by attention to social-emotional development. Rather than taking time away from activities promoting learning and thinking, attention to the development of self, social interactions, and relationships is an essential component of an early childhood curriculum designed to promote learning in all young children. Here are some guiding principles on how to do that:

- Support social-emotional development with intentionality and ample opportunities to practice skills
- Attend to the impact of overall program design on social-emotional development (how you group children, what you model, etc.)
- Utilize curriculum practices that support healthy social-emotional development, including:
  - allow many opportunities for practicing social interaction and relationship skills
  - provide support for the growth of age and developmentally appropriate self-regulation abilities
  - encourage curiosity and initiative
  - provide each child a network of nurturing, dependable adults who will actively support and scaffold his or her learning in a group setting
- The most effective approach is play-based active learning

Here are some additional strategies to support children's social and emotional development:

- Create a program environment and daily routines that offer children opportunities for responsible and cooperative roles in the classroom or family child care community.
- Model desirable behavior and attitudes in interactions with children and other adults.
- Use the family culture to create bridges between the program and the home, supporting children's pride in their family experience, and understand individual differences in background and viewpoint.
- Enlist adults as active co-explorers in children's chosen activities.
- Encourage children's ideas, initiative, and contributions to shared activities.
- Observe children attentively, as they play, to understand each child's needs, interests, strengths, and areas of growth in social-emotional development.
- Establish developmentally and culturally appropriate expectations for children's behavior, especially expectations for self-control and self-regulation.
- Narrate for children what they are observed doing and expressing, providing language to describe their thoughts and feelings and to clarify others' feelings.
- Provide specific feedback to children about their efforts, reinforcing their choices that support learning and linking their actions to outcomes.
- Coach and guide children's behavior by using positive, respectful phrasing and tone to prompt problem solving and to give brief instructions and reminders.
- Help children to understand social cues (facial expressions, body language, tone of voice). This can be fostered by simply allowing the children to freely play with their peers (learning through experience), or by modeling your own thought processes by thinking out loud ("I wonder what it means when Hayden is crying?")[1]



Figure 7.2: Children's emotions sometimes look like this. But with adult support they can learn to self-regulate.*[2]*

References

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7.3: Environmental Factors in Supporting Social and Emotional Development

The physical environment provides young children with expectations for behavior. When educators are mindful of the aesthetics, organization, and function of each area in the space, challenging behavior is likely to decrease while constructive, cooperative behavior increases.

A program's vision for learning and philosophy of care dictate how an environment is designed. For example, if the curriculum is based on the view that children are competent directors of their own learning, educators develop a physical setting and activities that reflect children's emerging interests and provide easy access to meaningful play materials. Shelves for manipulatives and other materials are near the floor where children can easily reach them. Special areas in the room are designed for individual, small-group, and larger-group interactions. Play materials and other materials are carefully selected to reflect children's emerging interests, as observed in the context of play and conversation. In this environment, adult-child interactions can expand children's questions and comments.

High-quality learning environments set the stage for social-emotional exploration and growth. When children are presented with a warm, inviting, and culturally familiar environment, they feel comfortable and secure. The attractive spaces adults prepare for children communicate expectations of responsibility and cooperative care (we all play in and care for this beautiful place together).



Figure 7.3: This classroom sends clear messages about how children are to play with the materials and each other.[1]

Preparing a variety of learning areas with open-ended materials encourages each child to participate in meaningful play experiences that match their individual temperaments and abilities. Incorporating elements from the home creates an atmosphere of community while simultaneously acknowledging the presence of individuals.

A physical environment that supports social-emotional learning has the following characteristics:

- Challenging and developmentally appropriate materials
- Ample supply of materials
- Appropriately sized small-group activities
- A variety of small-group activities within a range of adult supervision
- Aesthetically appealing
- Spaces to be with others *and* spaces to be alone
- Furnishings and materials accessible to children
- Displays of children's work
- Space for children's belongings
- Reflective of diversity
- Space for arrivals and departures
- Supportive of children's active engagement
- Outdoor areas supportive of social-emotional development

Just as the physical environment helps young children successfully meet the social-emotional demands of the curriculum so, too, does the design of the daily schedule. Young children are better able to manage themselves and their relationships when daily routines and activities are predictable, transitions are signaled and supported, and there is a balance between relatively active and relatively quiet play and between group and individual activities. In the sections that follow, strategies to support social-emotional development are described in detail.[2]

Helping Children Cope with Stress

Teachers in an early childhood education program are often the first persons outside the family to become aware that a young child may be experiencing overwhelming stress. They may notice a child who reacts with uncharacteristic aggression to a peer's comment that would not bother another child, or they may notice that a child has become unusually quiet and withdrawn lately. Young children convey their stress in individualized ways: some are emotionally over-reactive, while others are emotionally over-controlled; some become clingy, others withdrawn; some become provocative and defiant. A common characteristic is that young children under stress exhibit a marked change from their ordinary behavior. They often lose their capacity for competence and self-control that they previously had. When teachers observe these changes in a child, it can be helpful to consult with parents to discover whether recent events have created challenges that children are having difficulty managing. Often these challenges arise from within the family.

How can teachers assist young children under stress? One of the most important things they can do is provide the child with a predictable, safe haven where children can feel secure. Teachers can create a comfortable and comforting everyday routine that is child-centered, individualized, responsive, and helpfully structured to give young children a sense of control and predictability that may be lacking in other aspects of the child's life. Central to these efforts is providing children with supportive adult relationships that are reliable and helpful. This may be more difficult than one would expect because young children under stress often test these relationships to see whether teachers and other adults will remain responsive to them even when children act defiantly or negatively.



Figure 7.4: A teacher who cares makes a difference.[3]

In some circumstances, it can be helpful for teachers to obtain the advice of an early childhood mental health consultant who can observe the child in the classroom, talk with the teacher about the child's behavior, and suggest strategies for providing supportive assistance. Early childhood mental health consultants can be valuable resources to an early childhood education program. They can help teachers provide much-needed support to young children who may not have other such sources of support elsewhere in their lives.[4]

Pause to Reflect

What environments make you feel most socially and emotionally competent? How do you deal with your stress? Why should you be thinking about those things as a teacher?

References

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7.4: Introducing to the Foundations

The domain of social-emotional development encompasses three areas or strands:

- self
- social interaction
- relationships[1]

Supporting Children's Developing Self

Early learning deeply engages the self. Most preschool children approach learning opportunities with enthusiasm and self-confidence, excited by the prospect of new discovery. Their successes (and occasional failures) shape their sense of what they can do and sometimes drive their efforts to acquire new skills. Their achievements and occasional disappointments also provoke the responses of others—adults and peers—that further influence children's self-concept and self-confidence. Young children value learning for themselves because it is valued by the people who matter to them.

In a preschool program, learning is a social activity. Therefore, preschool children's success in learning depends on their capacity to understand and participate constructively in the social environment. Early childhood is a period of rapid growth in social and emotional understanding in which the children's capacity for empathy and caring is also developing. This is also a period of growth in self-regulation as young children are acquiring skills for sustaining their attention, focusing their thinking and problem-solving, managing their behavioral impulses, and controlling their emotions. Even so, lapses in self-regulation are as apparent as young children's successes, and developmentally appropriate expectations for children's self-control are essential.



Figure 7.5: This group of children is working together, with their teacher, to connect these pieces.[2]

Therefore, a thoughtfully designed preschool curriculum that supports social-emotional development devotes considerable attention to the direct and indirect ways that children's classroom experiences shape the development of self.

The foundations for Self include those for self-awareness, self-regulation, social and emotional understanding, empathy and caring, and initiative in learning:

Self

1.0 Self-Awareness

At around 48 months of age	At around 60 months of age
2.1 Describe their physical characteristics, behavior, and abilities positively.	4.1 Compare their characteristics with those of others and display a growing awareness of their psychological characteristics, such as thoughts and feelings.

2.0 Self-Regulation

At around 48 months of age	At around 60 months of age
4.2 Need adult guidance in managing their attention, feelings, and impulses and show some effort at self-control.	2.1 Regulate their attention, thoughts, feelings, and impulses more consistently, although adult guidance is sometimes necessary.

3.0 Social and Emotional Understanding

At around 48 months of age	At around 60 months of age

At around 48 months of age	At around 60 months of age
4.3 Seek to understand people's feelings and behavior, notice diversity in human characteristics, and are interested in how people are similar and different.	4.1 Begin to comprehend the mental and psychological reasons people act as they do and how they contribute to differences between people.

4.0 Empathy and Caring

At around 48 months of age	At around 60 months of age
4.4 Demonstrate concern for the needs of others and people in distress.	4.2 Respond to another's distress and needs with sympathetic caring and are more likely to assist.

5.0 Initiative in Learning

At around 48 months of age	At around 60 months of age
4.5 Enjoy learning and are confident in their abilities to make new discoveries although may not persist at solving difficult problems.	4.3 Take greater initiative in making new discoveries, identifying new solutions, and persisting in trying to figure things out.

Teachers can support children's development of the Self with the following:

- Provide ample space, use child-sized shelves and furnishings, and adapt materials to make all learning areas and activities accessible
- Designate learning areas to help children select preferred sites for exploration
- Place active play zones away from quiet areas to better support children in their choices for play
- Make use of adaptive tools and play materials to help the autonomous exploration of children with special needs
- Observe individual children attentively during a variety of activities
- Incorporate artwork and play materials that reflect children's home cultures
- Describe aloud for children observations of what they do and express as they play, explore, and participate in group activities
- Compare aloud children's past and present abilities as you observe them
- Give specific feedback to children about their efforts
- Use planned activities and children's own observations to draw attention to people's similarities and differences, including preferences and feelings
- Set up opportunities to practice problem solving with children who have not yet developed those skills
- Use appropriately stimulating aesthetic elements such as soothing colors, natural woods and fibers, and soft textures
- Eliminate or reduce background noise to help children attend to what you want them to hear
- Model behavior and attitudes that are warm, respectful, and caring
- Maintain developmentally appropriate expectations for preschool children's behavior
- Guide and coach children's behavior
- Prompt and guide desired behavior
- Reinforce children's good choices and link their actions to positive outcomes
- Provide a consistent but flexible daily routine
- Alternate between active and quiet activities
- Time group experiences to match children's developing attention spans, social skills, and self-control
- Introduce children to relaxation exercises
- Plan developmentally appropriate transitions
- Play games with rules periodically to help children learn to focus their attention and regulate their impulses in order to achieve a goal
- Observe the levels of social and emotional understanding that children already have
- Label the emotions people express and communicate with children about what may be provoking those feelings
- Discuss characteristics openly and answer their questions about differences, being thoughtful to counter stereotypes by using concrete examples
- Make use of the experiences and emotions of characters in stories
- Acknowledge and express appreciation for children's empathic responses
- Encourage empathy and caring for the natural world, including plants and animals

- Model curiosity and enthusiasm when you learn new things
- Engage in play and exploration with children instead of simply supervising their activities
- Provide ample time for free exploration, scheduling play and exploration periods of at least one uninterrupted hour at a time
- Help children generate ideas for solving problems they encounter
- Model persistence during challenging tasks; explaining that unsuccessful attempts to do something are not failures, but simply steps toward learning what will work[3]



Figure 7.6: Careful planning will ensure that group times are just the right length.[4]

PAUSE TO REFLECT

There were a lot of strategies listed to for teachers to help support children's developing sense of self. What are the top five that stood out to you? Are there any that you are unsure about?

Vignettes

A child in a wheelchair enters the housekeeping area where three children are pretending to be a family. They have dishes on the table and dolls in the doll bed. The child in the wheelchair moves closer to the table and tries to join the play but cannot get close enough. After a few minutes, one of the children takes some dishes and puts them on the wheelchair tray. The two children play together. Mr. Luke comments, "I like your idea to use Andy's tray as a table."

Chloe cries in Ms. Julia's arms. Ms. Julia pats her back softly and communicates in a soothing manner. "It sounds like that hurt. You can tell Paz you don't like that. Say, 'I don't like that, Paz.'" Chloe tucks her injured arm in toward Ms. Julia's body, shakes her head slowly side to side, and looks out warily at Paz. Paz stands close with her head lowered. "Chloe is upset because you pinched her arm. It hurt her quite a bit. Is there something you think we could do to help her feel better, Paz?" asks Ms. Julia.

Paz responds softly, "Sorry, Chloe," and reaches forward to give Chloe a hug.

Chloe whimpers and clings more closely to Ms. Julia. "When a friend is hurt, giving a hug often helps. I guess Chloe isn't ready for a hug right now. Thank you for trying, Paz. Maybe we can ask her again later."[5]

Supporting Children's Social Interaction

Group learning always involves social interaction. The ease and skill with which children interact with adults and peers (in a preschool classroom or family child care program) and the competence with which they assume their roles and responsibilities as group members significantly influence how they learn. The development of these skills in the preschool years is a foundation for children's capacity to be socially skilled and competent classroom members in the primary grades.

For some children, unfortunately, difficulties in social interaction—because children are timid and inhibited, are aggressive or disruptive, struggle with being cooperative, or have physical or behavioral characteristics that often result in them being excluded—can pose significant obstacles to benefiting from social interactions with adults and peers. For them and for all children, attention to social interaction skills can be a significant contribution to preschool children's learning in early childhood classrooms.



Figure 7.7: This teachers stays close to support children as they navigate the problem solving of both the computer program and working together.[6]

A thoughtfully designed preschool curriculum that supports social-emotional development devotes considerable attention, therefore, to the direct and indirect ways that classroom experiences shape the growth of children's social interaction skills. This includes interactions with adults, peers, and in groups as well as cooperation and responsibility.

References

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7.5: Social Interaction

1.0 Interactions with Familiar Adults

At around 48 months of age	At around 60 months of age
1.1 Interact with familiar adults comfortably and competently, especially in familiar settings.	1.1 Participate in longer and more reciprocal interactions with familiar adults and take greater initiative in social interaction.

2.0 Interactions with Peers

At around 48 months of age	At around 60 months of age
2.1 Interact easily with peers in shared activities that occasionally become cooperative efforts.	2.1 More actively and intentionally cooperate with each other.
2.2 Participate in simple sequences of pretend play.	2.2 Create more complex sequences of pretend play that involve planning, coordination of roles, and cooperation.
2.3 Seek assistance in resolving peer conflict, especially when disagreements have escalated into physical aggression.	2.3 Negotiate with each other, seeking adult assistance when needed, and increasingly use words to respond to conflict. Disagreements may be expressed with verbal taunting in addition to physical aggression.

3.0 Group Participation

At around 48 months of age	At around 60 months of age
3.1 Participate in group activities and are beginning to understand and cooperate with social expectations, group rules, and roles.	3.1 Participate positively and cooperatively as group members.

4.0 Cooperation and Responsibility

At around 48 months of age	At around 60 months of age
4.1 Seek to cooperate with adult instructions but their capacities for self-control are limited, especially when they are frustrated or upset.	4.1 Have growing capacities for self-control and are motivated to cooperate in order to receive adult approval and think approvingly of themselves.

Teachers can support children's development of the social interaction foundations with the following:

- Get to know and create a warm and secure relationship with each child
- Be at the child's level as much as possible
- Initiate conversations with children about their activities and experiences
- Describe what you see children doing with comments or questions that they can respond to
- Provide specific feedback to children about their efforts instead of general words of praise
- Show respect for cultural differences in your expectations of adult–child communication
- Encourage children to see familiar adults as resources and become comfortable in asking for help and support
- Model effective and respectful interaction by joining pairs or groups of children as they play and work together
- Incorporate play materials that promote and encourage peer play
- Suggest extensions for children's cooperative play
- Coach young children, step by step, as they learn conflict resolution skills
- Use books, puppet stories, and group discussions to reinforce children's social interaction skills
- Plan for project work, based on children's emerging interests, in pairs and small groups
- Plan large-group gatherings with flexibility
- Rehearse and prompt desired responses

- Acknowledge positive choices
- Build a sense of community through planned group experiences
- Arrange spaces for focused small-group work and effective large-group meetings
- Be thoughtful about group sizes
- Prepare materials ahead of time
- Incorporate nonverbal prompts to remind children of routines and expectations
- Ensure that adult expectations for children's behavior are developmentally appropriate
- Move beyond rules to expectations to emphasize guiding principles or values
- Enlist children's participation in creating examples of school or classroom expectations
- Focus on building a sense of classroom community
- Refer children to each other, instead of to an adult, for assistance to facilitate connections [1]



Figure 7.8: How do you think these children are going to navigate this conflict of wanting the same thing? [2]

As children mature, they are able to better understand the perspectives of other people and can negotiate more constructively with peers to resolve conflicts.

Table 7.1: Developmental Sequence of Conflict Negotiation [3]

Level	Description of Level
Beginning level	Children can express to each other (using words, actions, or facial expressions) their own desires, but adults need to provide ideas for resolving disputes.
Next level	Children begin to use appropriate words and actions to express their perspectives and desires to each other and seek adults for help during disputes.
Next level	Children not only express their own needs and desires to each other during a conflict, but can suggest simple solutions based on their own perspectives.
Mature or proficient level	Children can consider each other's perspectives when there is a disagreement and can suggest and agree on some mutually acceptable solutions.

Vignettes

Ju-Hye paints her palms and fingers with a rainbow of colors. With focused concentration, she slowly pushes her palm onto a piece of paper where she has already painted a "stem." She lifts up her hand quickly. Ju-Hye smiles widely and then picks up her paper to show Ms. Betty, who is playing on the floor with two babies. Ms. Betty looks up and responds with a grin: "You finished your flower. You worked hard at mixing colors to make the color of green you wanted for your stem."

Lucas stands close to his caregiver, Ms. Mai, who is sitting in the block area. Ms. Mai observes Lucas watching his peers at play as they build a large train. "This train is getting really big," she comments to Lucas with a soft smile and a gentle hand on

his back. Lucas nods his head slowly. “I wonder if Martin needs a helper. He said he is the engineer, but an engineer needs a conductor. Would you like to hand out and collect tickets?”

Lucas nods his head again and reaches for Ms. Mai’s hand as she gets up to move closer to the train. Ms. Mai provides Lucas her hand and another reassuring smile. “You could let Martin know you want to help. Tell Martin ‘I can collect the tickets.’”

Lucas pauses and then mumbles (or signs), “Martin, I can collect tickets.”

“You all look like you are having fun over here. Lucas wants to help too. Where are the tickets for Lucas to pass out to your riders?” restates Ms. Mai.

“Oh! Over there,” responds Martin, pointing over to the basket of torn pieces of paper.

“Thanks, Martin, for your help. Lucas, let’s go get the tickets and hand them to our friends. I think these builders will want to fill the train with passengers,” observes Ms. Mai excitedly. [4]

Pause to Reflect

One of the most challenging aspects about caring for and educating groups of young children can be helping them develop socially appropriate ways to express themselves and get their needs met? How skilled do you feel you would in helping children to develop conflict resolution skills? Why?

Supporting Children’s Relationships

Relationships shape young children’s learning. From infancy, parent–child and family relationships guide and motivate children’s love for discovery and learning and provide a secure foundation for the growth of exploration and self-confidence. In the classroom, special adults and friends make preschool an inviting place for children. The teacher is a bridge for the child, connecting her to relationships at home and in the classroom. Young children’s close relationships contribute in concert to the growth of early learning.



Figure 7.9: These children are proud of the structure they built with blocks. [5]

Relationships

1.0 Attachment to Parents

At around 48 months of age	At around 60 months of age
1.1 Seek security and support from their primary family attachment figures.	1.1 Take greater initiative in seeking support from their primary family attachment figures.
1.2 Contribute to maintaining positive relationships with their primary family attachment figures.	1.2 Contribute to positive mutual cooperation with their primary family attachment figures.
1.3 After experience with out-of-home care, manage departures and separations from primary family attachment figures with the teacher’s assistance.	1.3 After experience with out-of-home care, comfortably depart from their primary family attachment figures. Also maintain well-being while apart from primary family attachment figures during the day.

2.0 Close Relationships with Teachers and Caregivers

At around 48 months of age	At around 60 months of age
2.1 Seek security and support from their primary teachers and caregivers.	2.1 Take greater initiative in seeking the support of their primary teachers and caregivers.
2.2 Contribute to maintaining positive relationships with their primary teachers and caregivers.	2.2 Contribute to positive mutual cooperation with their primary teachers and caregivers.

3.0 Friendships

At around 48 months of age	At around 60 months of age
3.1 Choose to play with one or two special peers whom they identify as friends.	3.1 Friendships are more reciprocal, exclusive, and enduring.

Teachers can support children's development of the relationships with the following:

- Establish a warm and collaborative relationship with each child's family
- Talk with children regularly about their families
- Create predictable arrival and departure routines
- Communicate frequently with family members about children's preschool activities, progress, and any concerns you have
- Build and maintain a pattern of warm, nurturing interactions with each child
- Encourage child–adult collaboration in learning
- Plan a program that offers choices of activities and associations with peers
- Provide spaces in the classroom that only accommodate two or three children
- Use ongoing observations to inform your social structuring of experiences
- Use books, puppet plays, and group discussions to identify and reinforce friendship skills
- Communicate with children's families about their preschool friendships and encourage out-of-school contact with school friends, if possible [6]



Figure 7.10: Supporting relationships like this one is an important part of an early educator's work [7]

Vignettes

Tanya eagerly comes through the front door and greets caregiver Natalya with her news: "Ms. Natalya, we went to the fair last night, and I got to pet goats and sheeps and chickens, except Papa said to stay back from the ducks, because they have bills that can bite you fast!"

Ms. Natalya knelt down, and Tanya reached out to her. “Wow, Tanya! You sound really excited about your night at the fair. Did your whole family go, Grandpa too?” she asked, looking at Tanya’s papa, who had accompanied her to the family child care home. Mr. Terebkov smiled and nodded, responding that it had been an enjoyable but late night for all of them. Ms. Natalya prompted Tanya to hug Papa goodbye, and then Tanya reached for Ms. Natalya’s hand as they moved together into the play area. Ms. Natalya asked Tanya more about her favorite part of the county fair.

“No, you’re not!” shouts Michelle. “Yes, I am! I’m the Mommy!” screams Lily.

“Well, you are a Silly Pilly. You’re not my friend anymore” counters Michelle, standing with her hands on her hips and a scowl on her face.

At Michelle’s words, Lily’s lip begins to quiver. Tears form in her eyes as she yells, “I am your friend! I am!”

Miss Sandra moves over to the confrontation, kneels between the girls, and says with concern, “You both look really upset. Something is wrong. Can you tell me what is happening?”

“She said I am not her friend!” exclaims Lily, trying to overcome her tears.

“She is being a mean-y pants. I don’t like her,” says Michelle.

“It sounds like both of you have hurt feelings. Being friends with someone means that sometimes we disagree and we get mad or sad. It sounds like that is happening right now. What can we do?”

“I am going to play with David,” huffs Michelle as she marches off.

Lily leans into Miss Sandra. Miss Sandra considers what she knows about each child’s individual temperament before responding: “It’s tricky sometimes with friends. Why don’t we take a little break from playing with Michelle? I’ll bet she will be ready to play later when you are both feeling better.” Miss Sandra helps Lily get involved in a new activity and then makes a mental note to check with each child’s parent at departure time. [8]

Pause to Reflect

Separating from parents is challenging for both children and families. How can you support children and the adults that they are attached to through this transition? Some of the strategies above are a great starting place.

Engaging Families

Teachers can make the following suggestions to families to facilitate their support of the visual and performing arts for their children:

- Share stories about when they were babies and the ways they have grown and changed.
- Share ideas about the many ways people can be the same and different.
- Model constructive coping strategies when frustrated.
- Wonder aloud about how characters is a book might be feeling and why.
- Help children find a balance between vigorous activity and calm and focused times.
- Have conversations with children about things they are thinking, planning, and doing.
- Encourage children to work out a disagreement with a sibling or friend by suggesting to each other ideas for solving the problem. Remind children to consider each other’s needs and feelings as they choose a solution to try. Stay close by to help children as they practice using words to resolve a conflict.
- Ask children for help with household chores or projects. Discuss, while working together, some things each person can do to help the family.
- Emphasize to children the family’s values about such things as cooperation, teamwork, good manners, and kindness toward other people.
- Start a special good-bye ritual to use with a preschool child every day. A predictable routine is reassuring and makes the transition easier.

- Find at least a few minutes every day to spend as special time with each child (read a book, run an errand, complete a chore together, etc.
- Recognize that opportunities out of school to play with other children build positive social skills. [9]



Figure 7.11: Books are a wonderful way to share examples and create discussion about social and emotional development. [10]

Conclusion

The heart of a curriculum that nurtures children's social-emotional development is play. A play-based, active learning approach allows many opportunities for practicing social interaction and relationship skills. It provides support for the growth of age- and developmentally appropriate self-regulation abilities. It encourages children's own curiosity and initiative. Finally, play in a well-planned early learning program provides each child with a network of nurturing, dependable adults who will actively support and scaffold their learning in a group setting.



Figure 7.12: Play provides opportunities for children to practice their developing social skills [11]

To be effective in accomplishing early learning goals, an active, play-based program must allow children to freely choose and pursue interests and activities, both alone and with others. It must encourage them to translate their own thoughts, ideas, and preferences into new activities and experiments. It must give them access to these opportunities for activity and exploration in a thoughtfully planned environment for a substantial portion of each preschool day. And most importantly, it must be planned and led by teachers who actively participate as co-explorers in children's chosen activities. In this context, play is essential and is enhanced if materials are available to encourage creativity and problem solving, and if teachers are attentive to the social interactions that surround children's play. This active, enthusiastic engagement of children and adults together in a learning community can lead to dramatic growth in children's social-emotional understandings and competencies and their readiness for the challenges of school.

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CHAPTER OVERVIEW

8: Language and Literacy

Learning Objectives

By the end of the chapter, you should be able to:

- Discuss the importance of language and literacy development for children's overall well-being and learning
- Summarize the foundations in language and literacy that high-quality early childhood programs support
- Identify ways for educators to support children's listening and speaking, reading, and writing
- Describe how the environment should contribute to children's language and literacy
- Summarize ways to engage families in supporting their children's language and literacy

8.1: Introduction
8.2: Guiding Principles for Supporting Language and Literacy
8.3: Environmental Factors in Supporting Language and Literacy
8.4: Introducing the Foundations
8.5: Conclusion

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8.1: Introduction

Language is one of the most crucial tools that children acquire, one that is essential for cognitive development, reading achievement, and overall school performance, as well as for social relations. It allows people to share a society's achievements and history and the deepest emotions. Language includes conventional sounds, gestures, and visual symbols, such as writing, that are used separately and jointly for purposes of communication.

The human brain is "hard-wired" to learn language, a process quite similar in all children. Yet children differ a good deal as to when they hit milestones such as when they use their first words, start to combine words into sentences, and use complex sentence forms to communicate meaning. Though children begin to develop language and literacy at birth, with nonverbal cues such as eye gaze and gestures, they arrive at preschool ready to communicate with symbols: words, signs, and pictures.

Children's early language and literacy environments often vary, with the amount and kind of experiences differing across families. Some children experience more conversations and book reading than other children and more than one language. Some children see print primarily in the environment (e.g., street signs, store coupons, labels on containers). Other children engage with print in many contexts, including books read to them regularly.



Figure 8.1: These children are really engaged with these books. Their prior experience with books and being read to helps them understand how books are used.[1]

Some children have opportunities to scribble, draw, and write with crayons and markers long before they come to preschool, while others have few of these emergent writing opportunities. Teachers should encourage all preschoolers to join in activities that will expand their language and literacy skills. Each child's family should be invited to participate in this exciting process.

The following components constitute oral language:

Figure 8.1: Parts of Oral and Sign Language System[2]

- Phonology—the sound system of language, such as noticing that hat, cat, and mat differ by only a single initial sound
- Semantics—the meaning conveyed by words, phrases, and sentences
- Syntax or grammar—the rules that govern how sentences are put together
- Morphology—the units of meaning within a language, also called morphemes, such as *--ed* for past tense (e.g., walked) and s for plural (e.g., dogs)
- Vocabulary—the words in a given language
- Pragmatics—the rules of language used in social contexts (e.g., one would talk differently to the president than to one's mother). Pragmatics includes gathering information, requesting, and communicating. Good conversations depend on staying on the topic and turn-taking

These components are used in the auditory (i.e., listening, speaking) and visual (i.e., sign, reading, writing) modalities. Language allows children to express their feelings and needs, acknowledge the feelings and needs of others, and to talk about emotions.

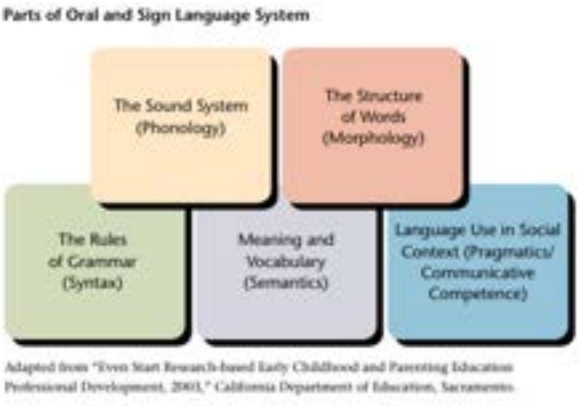

Figure 8.2: Language allows you to express yourself, understand others, and work together. [3]

Preschool is also an exciting time for written language development and for promoting interest in reading. If the social and physical environments in preschool and the home support the development of reading and written language, children will want to hear stories from books and to use books to find out more about things of interest. They will also be inclined to create marks that approximate letters and to learn how to write their own names. They will enjoy playing with the sounds of language as well. All of these experiences are foundations for the conventional reading and writing that come later.[4]

Research Highlight

The principles and curricular suggestions offered in this chapter are based on 40 years of scientific research on language acquisition and literacy development. Here are just a few of the amazing discoveries that form the background of this chapter. The following findings come from this vast body of research:

- Even in infancy, children are active learners who use data from the language they hear to grasp patterns. Children learning language behave as young mathematicians who respond to patterns and calculate, for instance, that in English –ed generally comes at the end of verbs to indicate the past tense (e.g., he walked or it dropped).
- When young children hear language around them, they are accumulating the data they need to use their skills and to grasp the features of their native language. In addition, the very practice of reading with children (e.g., starting at the front of a book and moving page by page to the end) teaches the patterns of book structure and handling and the general ways that print works (e.g., English is read from the left to right and top to bottom on a page). When book reading is accompanied by explicit comments (e.g., "This is the title of the book: Whistle for Willie") and actions (e.g., underlining the title as it is read), children learn even more about the features of books and how print works.
- Children's storytelling skill and vocabulary development are supported through shared reading experiences. Stories have a predictable structure: setting, characters, a problem, and its resolution. As children hear stories, they learn this basic structure and begin to use this knowledge to shape the stories they create. Children also learn the meaning of new words from listening to multiple readings of good stories, "friendly explanations of words" (explanations with wording and examples within the preschool child's grasp rather than a more formal definition from a dictionary) offered by teachers and parents as they read stories to children, and from engagement with adults in discussions during story reading.[5]

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8.2: Guiding Principles for Supporting Language and Literacy

It is critical that teachers and caregivers be responsive to young children's attempts at communication and language by focusing on things that are meaningful to the children and their families. No single component of any curriculum will have more impact on a preschooler's development than language.



Figure 8.3: Listening to children's message (and not correcting their errors) is vital to their language development.[1]

Preschool is also an exciting time for written language development and for promoting interest in reading. If the social and physical environments in preschool and the home support the development of reading and writing, children will want to hear stories from books and to use books to find out more about things of interest. They will also be inclined to create marks that approximate letters and to learn how to write their own names. They will enjoy playing with the sounds of language as well. All of these experiences are foundations for the conventional reading and writing that come later.

Here are some guiding principles on how to support children's language and emerging literacy:

- Language and literacy work together. They often occur in the same context. And having well-developed oral language contributes to later success with more formal reading and writing.
- The more language children hear, the more their language grows.
- It is important to give children rich models of speech/communication and reading and writing.
- Opportunities to learn language and literacy are everywhere.
- Children learn best from experiences that are interesting, useful, and fun. This includes silly songs, poems with surprise endings, and interesting and informative books.
- Celebrate and support the individual. Things such as temperament, prior experience, and disabilities affect children's starting places with language and literacy.
- Connect with families. Providing them with certain materials and strategies to support their children's language and literacy development benefits children's learning.
- Create a culturally sensitive environment. Some children have been encouraged to speak up more than others.
- Encourage children to use language for negotiating with other children, asking for what they want, and expressing their emotions.
- Create many opportunities for children to do the talking. Ask open-ended questions and model engaging in the back-and-forth of conversations.
- Make thoughts more explicit to children by thinking out loud.
- Support curiosity and confidence. Children should freely use "Why? and "How come?"
- Create well-organized, literacy-rich environments, both indoors and outdoors.
- Observe how children engage with language and literacy to meet each child's needs.[2]

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8.3: Environmental Factors in Supporting Language and Literacy



Figure 8.4: This large-group experience supports language in an engaging way.[1]

How the learning environment is arranged affects how children learn to talk, read, and write. An environment that fosters language development, two-way communication, and literacy skills provides rich curriculum content. The daily schedule accommodates a variety of groupings (e.g., large group, small group, and individual), and the learning materials fascinate children. Children learn more when adults model language and literacy as well as provide playful, purposeful instruction. Play spaces with literacy props (e.g., signs, lists) allow children to congregate and to make choices that foster rich language and literacy experiences.

- Create time in the daily routine for adult-child and child-child interactions.
- Have space and times for large-group times
- Create spaces and times for children to gather in small groups
- Provide a space to display family-related items; consider how to add text to those displays
- Organize your classroom into centers or interest areas to create clear spaces for children to engage and collaborate (and communicate), including
  - A dramatic play area
  - A block area
  - An art area
  - A writing area
  - A cozy library or book area
  - A science area
  - A game area
  - A math area
- Choose materials for small- and large-group times that the children will be interested in and use them with intention
- Create a learning environment to fascinate children and prompt conversations
- Extend the classroom beyond its wall; being outdoors, going on walks, and taking field trips are all great for promoting conversation
- Be flexible in your environment; allow children to expand their ideas to new areas[2]



Figure 8.5: In this image, you can see the reading area (on the left) and the writing area (on the right).[3]

Pause to Reflect

How might the centers just listed each support language *and* literacy?

Learning English as a Second Language

In California as many as half of children will be identified as English learners upon kindergarten entry. The home languages of these children include Spanish, Vietnamese, Cantonese, Hmong, Tagalog, Korean, and other languages.

In general the development of a second language follows these predictable stages

Stage	Description of Stage of Second Language Development
1st stage	The child uses their home language to try and communicate
2nd stage	The child figures out that it is not successful to use the home language so they pass through a period of observation and listening
3rd stage	The child attempts to use new language in more abbreviated form through the use of one or two word sentences
4th stage	The child begins to use more elaborated phrases and short sentences to communicate in the new language

While some express concern that learning more than one language is confusing or delays children's development, there have been no negative effects of bilingualism found in research. According to Gigi Luk, an associate professor at Harvard's Graduate School of Education, "bilingualism is an experience that shapes our brain for a lifetime." There are many potential benefits to knowing more than one language, including: increased ability to pay attention, better reading of social cues, better reading ability, better school performance and engagement, increased comfort with diversity and different cultures, and even protection from age-related dementia[4] It's important for educators to support and advocate for the maintenance of children's home languages for both the benefits mentioned here but also because,[5] "[t]he child's first language is critical to his or her identity. Maintaining this language helps the child value his or her culture and heritage, which contributes to a positive self-concept.[6]

Children who are English learners bring a wealth of ability and knowledge as well as varied cultural backgrounds to early childhood settings; English learners also require curricular adaptations to make the most of their abilities while they progress toward full English proficiency. The high-quality early childhood practices described in the other domains will also benefit preschool children who are English learners, but they may not be enough.[7]

There are many resources available to support teachers of children who are English Language Learners including these from the California Department of Education:

- The California Preschool Learning Foundations (Volume 1): https://www.cde.ca.gov/sp/cd/re/documents/preschoollf.pdf
- The California Preschool Curriculum Framework (Volume 1): https://www.cde.ca.gov/sp/cd/re/documents/psframeworkkvol1.pdf
- Preschool English Learners (2nd edition): https://www.cde.ca.gov/sp/cd/Re/documents/psenglearnersed2.pdf

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8.4: Introducing the Foundations

The preschool learning foundations for Language and Literacy are organized into three broad categories or strands

listening and speaking

reading

writing[1]

Supporting Listening and Speaking

Language takes place all around us—in social interactions between teachers and children, in classroom management, in play between children, and in instructional activities. For example, when children learn mathematics and science, they learn them through language as well as through meaningful, multisensory experiences.



Figure 8.5: This hands on math activity includes a language-rich interaction.[2]

Language also enhances or limits children's ability to choose playmates and join in games on the playground. The foundations for listening and speaking include:

Language use and conventions focuses on how children use their language for a number of purposes, including learning how to participate in short conversations.

1.0 Language Use and Conventions

At around 48 months of age	At around 60 months of age
1.1 Use language to communicate with others in familiar social situations for a variety of basic purposes, including describing, requesting, commenting, acknowledging, greeting, and rejecting.	1.1 Use language to communication with others in both familiar and unfamiliar social situations for a variety of basic and advanced purposes, including reasoning, predicting, problem solving, and seeking new information.
1.2 Speak clearly enough to be understood by familiar adults and children.	1.2 Speak clearly enough to be understood by both familiar and unfamiliar adults and children.
1.3 Use accepted language and style during communication with familiar adults and children.	1.3 Use accepted language and style during communication with both familiar and unfamiliar adults and children.
1.4 Use language to construct short narratives that are real or fictional.	1.4 Use language to construct extended narratives that are real or fictional.

Vocabulary learning is one of the most important accomplishments of early childhood and is related to later reading comprehension.

2.0 Vocabulary

At around 48 months of age	At around 60 months of age
2.1 Understand and use accepted words for objects, actions, and attributes encountered frequently in both real and symbolic contexts.	2.1 Understand and use an increasing variety and specificity of accepted words for objects, actions, and attributes encountered in both real and symbolic contexts.
2.2 Understand and use accepted words for categories of objects encountered and frequently used in everyday life.	2.2 Understand and use accepted words for categories of objects encountered in everyday life.

At around 48 months of age	At around 60 months of age
2.3 Understand and use simple words that describe the relations between objects.	2.3 Understand and use both simple and complex words that describe the relations between objects.

Grammar allows children to go beyond mere naming with their vocabularies to express their ideas in sentences. It's understanding how words are put together in a sentence.

3.0 Grammar

At around 48 months of age	At around 60 months of age
3.1 Understand and use increasingly complex and longer sentences, including sentences that combine two phrases or two to three concepts to communicate ideas.	3.1 Understand and use increasingly complex and longer sentences, including sentences that combine two phrases or two to three concepts to communicate ideas.
3.2 Understand and typically use age-appropriate grammar, inducing accepted word forms, such as subject-verb agreement, progressive tense, regular past tense, regular plurals, pronouns, and possessives.	3.2 Understand and typically use age-appropriate grammar, inducing accepted word forms, such as subject-verb agreement, progressive tense, regular and irregular past tense, regular and irregular plurals, pronouns, and possessives.

Teachers can support children's development of the listening and speaking foundations with the following:

- Make sure that children have a chance to talk by setting aside time for them to discuss and to share their ideas.
- Acknowledge their contributions by making eye contact, using their names, restating their talk, providing explanation when they ask a question, and building on what they say.
- Engage in "getting to know you" conversations.
- Model the use of language conventions and encourage children to do the same.
- Build on preschool children's own experiences by asking children to recount simple daily experiences.
- Use dramatic play and co-construct stories.
- Give story stems.
- Notice where children look and then talk about the things that are the focus of attention and action, using interesting, rich vocabulary.
- Narrate what you are doing.
- Use new vocabulary in natural conversations.
- Play language games.
- Ask children to tell you about their artwork and other creations.
- Talk one-on-one with children.
- Know individual children and their families (especially important for children whose home language is not English)[3]

Vignettes

It is Lara's turn to share a special story from home. Lara, who is beginning to use an assistive technology communication device, had some key words added to her device that enable her to share. As Mr. Tony holds up the pictures, she pushes the button that labels the picture. Mr. Tony expands the label by saying "Tango. This is your new dog, Tango." Lara beams as the children get excited. "I got a dog like that!" Emilio says, "He is black too." Mr. Tony holds up another picture and asks, "What is Tango doing in this picture, Lara?

In response to the construction outside their classroom, the room is filled with activity as children use their plastic hammers and wrenches, tool belts, and benches. The planned curriculum includes a Construction Unit. Outside the window, the children can see the cranes move and the workers in hard hats. They hear the sound of hammer against nail. This week the teacher reads to the class stories about construction equipment and information books about how tall buildings are made. The construction outside gives Ms. Vase an opportunity to expose children to the names of common and even not-so-common tools. Ms. Vase sent home a one-page newsletter in the languages of families represented in her classroom, telling parents about the Construction Unit and about vocabulary children are learning. She asked if any parents who are builders or carpenters would like to come to class to share their experiences.[4]

Pause to Reflect

How do you find yourself naturally engaging with others through conversation? What do you already do that will translate well into supporting children's listening and speaking? What might you want to change or add to grow your skills in supporting their ability to speak and listen effectively?

Supporting Reading

Reading billboards effortlessly on a car ride or making a shopping list involves literacy skills. Literacy includes both reading and writing. Literacy is also involved when people understand language and know enough about the world to comprehend the books they read. Children hear many books read aloud before they can read for themselves, and they can use scribbles to represent the thoughts they compose before they will use conventional print. Literacy does not develop overnight; it comes from being talked to and read to and from being encouraged to look at books, to draw, and to write. Children start on their journey to literacy at birth through visual and auditory observation of their world and through interactions with people and materials, in a variety of daily experiences, both at home and at school.



Figure 8.6: This sign for the math center, includes print in the home languages of the children and images to help children interpret the print.[5]

Reading provides access to meaning represented by print. It requires the translation of print into speech and the interpretation of meaning. Reading depends heavily on oral vocabulary and grammar and also on specific literacy knowledge (e.g., names of alphabet letters) and skills (e.g., detecting sounds in spoken words). Preschool children engage in reading by listening to stories and by retelling familiar books. They also engage in reading when they interpret environmental print by using physical clues (e.g., the stop sign is the red one at the end of their street) or when they reenact through play the literacy-related social behavior of family members (e.g., making a shopping list or pretending to read the cooking directions on a food box).

The foundations for reading are organized into:

Concepts about print involves the understanding that print is meaningful and can be used for a variety of purposes.

1.0 Concepts about Print

At around 48 months of age	At around 60 months of age
1.1 Begin to display appropriate book-handling behaviors and begin to recognize print conventions.	1.1 Display appropriate book-handling behaviors and knowledge of print conventions.
1.2 Recognize print as something that can be read.	1.2 Understand that print is something that is read and has specific meaning.

Phonological awareness concerns learning to notice that spoken words have parts.

2.0 Phonological Awareness

Foundations
2.1 Orally blend and delete words and syllables without the support of pictures or objects.
2.2 Orally blend the onsets, rimes, and phonemes of words and orally delete the onsets of words, *with* the support of pictures or objects.

Alphabetics and word/print recognition includes identifying alphabet letters and linking letters in printed words to sounds in spoken words.

3.0 Alphabetics and Word/Print Recognition

At around 48 months of age	At around 60 months of age
3.1 Recognize the first letter of own name.	3.1 Recognize own name or other common words in prints.
3.2 Match some letter names to their printed form.	3.2 Match more than half of uppercase letter names and more than half of lowercase letter names to their printed form.

At around 48 months of age	At around 60 months of age
none	3.3 Begin to recognize that letters have sounds.

Comprehension and analysis of age-appropriate text involves thinking that leads to understanding stories and other kinds of books.

4.0 Comprehension and Analysis of Age-Appropriate Text

At around 48 months of age	At around 60 months of age
4.1 Demonstrate knowledge of main characters or events in a familiar story (e.g., who what, where) through answering questions (e.g., recall and simple inferencing), retelling, reenacting, or creating artwork.	4.1 Demonstrate knowledge of details in a familiar story, including characters, events and ordering of events through answering questions (particularly summarizing, predicting, and inference), retelling, reenacting, or creating artwork.
4.2 Demonstrate knowledge from informational text through labeling, describing, playing, or creating artwork.	4.2 Use information from informational text in a variety of ways, including describing, relating, categorizing, or comparing and contrasting.

Literacy interest and response includes children's engagement in and motivation for reading.

5.0 Literacy Interest and Response

At around 48 months of age	At around 60 months of age
2.1 Demonstrate enjoyment of literacy and literacy-related activities.	3.1 Demonstrate, with increasing independence, enjoyment of literacy and literacy-related activities.
2.2 Engage in routines associated with literacy activities.	3.2 Engage in more complex routines associated with literacy activities.

Teachers can support children's development of the reading foundations with the following:

- Provide print props to support dramatic play.
- Provide print props in the block area.
- Use literacy terminology, such as letter and word, naturally.
- Use print, with supporting images, to support classroom routines and limits.
- Take the time to read environmental print.
- Model using print as a tool to get things done and to record information.
- Use print to support teacher-guided activities.
- Model basic print conventions, such as reading left to right.
- Write down interesting words as they come up and encourage verbal explanations of word meaning.
- Play games that focus on sounds.
- Use silly songs and poems daily.
- Play with sounds.
- Discuss rhyming words and words that begin with the same sound.
- Use children's printed names as labels and to support routines, transitions, and free-play experiences
- Provide access to alphabet letters in a variety of contexts.
- Focus on first letters and sounds in alphabet books and posters.
- Use everyday opportunities to model attending to print details in words.
- Provide materials with environmental print in an interest area.
- Provide predictable textbooks in library and listening areas.
- Read stories daily.
- Make stories come alive with your voice and expression.
- Make story time just the right length (not too long, not too short).
- Read stories several times over a few days.
- Define new words in a story you are reading.
- Discuss a story after reading it.
- Read information (nonfiction) books.

- Model using information gained from text (books and nonbook sources) and provide opportunities for children to do the same.
- Provide the space and materials for children to retell stories independently.
- Place books in all areas of the classroom.
- Make reading and writing meaningful and useful.
- Provide ample opportunities for children to cross their midline (moving the left hand or foot to the right side of the body, and the right hand or foot to the left side of the body which requires communication between your brain's left and right hemispheres)[6]



Figure 8.7: This flannel set that corresponds with a book recently read in the classroom. He can use these pieces to retell the story. [7]

Vignettes

Pairs of children walk hand in hand to return to their classroom after playing outside. Sasha stops walking, points to a sign posted in the hallway, and says to Yasmin, her partner, "That sign says to be quiet because the babies are sleeping." In a soft voice, the teacher says, "Yes, we are walking past the babies' room. We've talked about how they might be sleeping. This sign says, "Remember to Walk." Do you think we need to make another sign for the hallway, one to remind us to talk softly?" The children agree that the second sign is needed, and several offer to help.

After singing "Down by the Bay" at circle time, Mr. Zhang used an illustrated book to review the song and engage children in playing with some sounds in the words: "Here's the funny bear, combing his hair. Bear, /b/-/ear/; hair, /h/-/air/. The last parts of those words [i.e., the rime portion] sound the same, don't they? They rhyme." Several children agreed enthusiastically. "And who's on this page?" "The llama," shout several children. "Eating his /p/ . . . (pause)" Mr. Zhang continued.
"Pajamas!" several children called out. As he turned the page, several children called out, "The fly with a tie." "Yes, the fl-y wearing a t-ie. Before I turn the next page, I'll give you a clue about what you'll see next: A /wh/-ale . . ." "A whale!" the children called out. "With a polka-dot /t/-ail,"the teacher continued. "Tail," several children called out.

The caregiver shares an alphabet book with a few children. "This is the page for the letter B. Here is the big B and here's the little b." She engaged the children to help identify the pictures on the B page: "Blueberries, broccoli, beets, bananas, beans." Then she comments, "B is the first letter in each of these words. This word (pointing to the first letter in blueberry, printed above a picture of a box of blueberries) starts with the letter B. It says, Blueberry (underlines the rest of the word, as she reads it). Blueberry starts with the /b/ sound. What do you think this word says? (She points to the word above the picture of some bananas.) One child says, "banana;" another says, "platano." The caregiver confirms that banana can be called by either name, one Spanish and the other English. "The words in this book are written in English—/b/ is for banana (points to banana). I think we could write some of these words in Spanish and paste them into the book. We could write brecol to put here with broccoli." "When can we do that?" a child asks. "After rest time today, if you'd like. Miguel and Alexandria will still be sleeping. I can help you and Aaliyah spell Spanish words that will work in this alphabet book. We can type them on the computer and then print them out to paste in our book."[8]

Pause to Reflect

What memories of reading and books do you have from your childhood? How do you feel about reading now? Is that how you want children to feel about reading? If so, how can you share that? If not, what might you do to ensure they have a different perspective about reading?

Supporting Writing

Developing as a writer depends on the writer's understanding of how a particular written language looks and on the writer's language and thinking skills. Conventional writing requires knowledge of alphabet letters and an understanding that letters stand for sounds in spoken or signed words. Deciding what to write requires oral or sign language, knowledge, and thinking. Preschool children engage in writing when they use scribble marks and proudly announce their meanings (e.g., "This says ____"). Preschool children frequently use drawing, rather than writing marks, to represent their thoughts, and they often combine scribble or other writing-like marks with their drawings to communicate. Preschool children are happy to serve as their own interpreters, telling

people what their early writing and drawing is meant to say. Teachers are careful not to criticize children's early scribble productions. To find out what a child's writing means, teachers may ask a child: "Tell me about these wavy lines down here."



Figure 8.8: Ask children about their writing to see what it represents.[9]

Writing focuses on understanding that print represents ideas and on learning to move from drawing and scribble writing to using letters and words. Much exploration with paper and writing tools occurs before children will try to write to convey specific meanings. When children write to convey meaning, they are using their language, their physical ability to hold a crayon or pencil, and the cognitive understanding that the marks they make on the page are symbols that represent a meaning that can be shared.

1.0 Writing Strategies

At around 48 months of age	At around 60 months of age
2.3 Experiment with grasp and body position using a variety of drawing and writing tools.	3.3 Adjust grasp and body position for increased control in drawing and writing.
2.4 Write using scribbles that are different from pictures.	3.4 Write letters or letter-like shapes to represent words or ideas.
2.5 Write marks to represent own name.	3.5 Write first name nearly correctly.

While direct writing instruction is not yet developmentally appropriate for preschool-aged children, who do not quite have the fine motor coordination needed to write legibly, they are developing important skills and knowledge that contribute to their ability to communicate in written form.

Table 8.1: Four Levels of Writing Development over the Preschool Years

Level	Description
Exploring	The child explores with marking tools on a variety of writing surfaces, creating scribble marks. The child sometimes focuses on making marks without any intention of using these to stand for writing. Sometimes the marks prompt the child to think of something from the child's world that is familiar, and the child attributes meaning to scribbles
Developing	As the child continues to explore with mark making, the child organizes scribble marks into lines when "writing," which indicates the child's observation that marks for writing and marks for pictures are organized differently. Often, the child will point to scribble marks that are lined up and say, "This says . . ." In other words, children begin to attribute meaning to their scribble writing.
Building	Children's skill in using marks to create both pictures and writing increases to the point where others can recognize a child's intentions. Although the marks are still not always well formed, adults have a good idea what the child intended to portray and the letters a child intended to write. Children sometimes make up new designs that look remarkably like actual letters. They do not yet know that there are just 26!
Integrating	At this phase, children know most, if not all, of the uppercase alphabet letters, and they combine these to make words. Some of the words are ones they see frequently, such as their names. Most are quite legible, although not perfectly formed, of course, and a letter might be written with its orientation reversed. In addition to their names, children sometimes write a few simple words, such as love or yes and no. They also might string letters together in sets that look like words and ask adults, "What word is this?" A few older preschoolers might have figured out that letters selected to make words relate to the sounds in the spoken words, and invent spellings, such as KK for cake or CD for candy



Figure 8.9: Often the first word that children write is their own name.[10]

Teachers can support children's development of the writing foundations with the following:

- Setting up a well-stocked writing area
- Frequently adding new materials to the writing area
- Providing writing materials in other interest areas and outdoors
- Embed writing in everyday transitions and routines
- Encourage children to write in the art interest area
- Respond sensitively to children's emergent writing; focus on the meaning that children are trying to convey rather than on the form of their writing
- Respond to children's questions and requests for help with writing; describe and model how to write the letter on a separate piece of paper
- Model writing
- Display children's writing
- Provide ample opportunities for children to cross their midline
- Provide experiences in which children strengthen fine motor muscles (fingers, hand, wrist, forearm), and develop dexterity, such as working with clay, cutting with scissors, and working with tools[11]

Crossing the Midline

"The body's mid-line is an imaginary line down the cent[er] of the body that divides the body into left and right. Crossing the body's mid-line is the ability to reach across the middle of the body with the arms and legs. This allows children to cross over their body to perform a task on the opposite side of their body (e.g. being able to draw a horizontal line across a page without having to switch hands in the middle…"

"Crossing the body's mid-line is an important developmental skill needed for many everyday tasks such as writing... When a child spontaneously crosses the mid-line with the dominant hand, then the dominant hand gets the practice needed to develop good fine motor skills by repeated consistent hand dominance. If a child avoids crossing the mid-line, then both hands tend to get equal practice at developing skills and the child's true handedness may be delayed. This means that once a child starts school, learning to write is much more difficult when they have two less skilled hands rather than one stronger, more skilled (dominant) hand. Difficulty crossing the mid-line also makes it difficult to visually track a moving object from one side to the other or track from left to right when reading, meaning reading can also be delayed."[12]

Vignettes

Jessalyn is delighted with the birthday card picture from a peer and wants to write a thank-you note. She draws a picture and then tells the teacher, "I want real words, too, but I can't make them."

"What would you like the words to say?" the teacher asks. Jessalyn dictates: "I liked the pretty picture of me. It was a pretty birthday card." "Do you want me to write that down or help you?"

"I can do letters," Jessalyn explains, "but I can't make words. Well, just love." The teacher helps Jessalyn spell the word pretty by segmenting some of its sounds and naming the letters needed to write the sounds. After the teacher names the last letter in pretty, Jessalyn remarks, "y? Why not e?" The teacher explains that e is used to write this sound in many words, but, in others, y is used.

Then the teacher asks, "What letter is at the end of your friend Jeremy's name?" "Oh, y!" Jessalyn realizes. "Do we have anybody with e?" she asks. "Not this year. But last year, there was a girl named Kaylee, and she used e to write the /e/ sound."[13]

Engaging Families

Teachers can use the following strategies to help families to develop their children's language and literacy.

- Send families home with things to look for on the weekend, topics to talk about, or stories to tell together (written in their home language).
- Suggest ways that parents can send a response back to the classroom.
- Send books, other reading materials, and writing materials home with children.
- Provide a lending library in the home languages of the children and encourage parents to read to their children in their home language.
- Share ideas with parents about questions they might ask about books, and provide these in the home language.
- Introduce parents to community resources to get books for home
- Encourage family members to share their writing with children.
- Share children's triumphs and experiences and people they really enjoy with families.
- Use displays to help family members understand the developmental nature of writing.
- Invite families to share their stories with you.
- Think about projects to do in class in which children can bring materials from home.[14]



Figure 8.10: It looks like a father, a younger sister, and an older sister have all joined this girl in a favorite classroom activity. Family involvement is a great way to validate children's interests and efforts. (And it can spark great conversation later!)[15]

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8.5: Conclusion

Decades of research have shown that playful learning, intentional teaching, and a rich curriculum help children learn about the world and master language and literacy. The principles and strategies provided in this chapter are based on this research. Teachers must be mindful of what the research has revealed about how children acquire a vast array of knowledge and skills. However, teachers must also assume responsibility for weaving together a program that combines children's play with their own specific plans in ways that secure a bright academic future for each child. By definition, this means that children's interest in and motivation to learn are maintained. The satisfaction and joy of teaching come from knowing that the very best efforts were made and from seeing the results of such efforts in the children's faces every day. The progress documented for each child over the course of a year also brings joy and satisfaction.[1]

Pause to Reflect

What are some of the ways language and literacy occur naturally in the everyday lives of children? What are additional things that teachers will need to intentionally bring into the program (this could include materials, interactions, activities, environmental design, etc.)?

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CHAPTER OVERVIEW

9: Mathematics

Learning Objectives

Explain what math education in early childhood is and what it is not

- Summarize the foundations in mathematics
- Identify ways that educators can support spontaneous experiences with math and intentionally plan to build children's mathematical knowledge.
- Describe how the environment supports mathematics.
- Relate how to engage families in support their children's mathematic knowledge.

9.1: Introduction
9.2: Environmental Factors in Supporting Math
9.3: Introducing the Foundations
9.4: Engaging Families
9.5: Conclusion
9.6: Guiding Principles for Supporting Math

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9.1: Introduction

Mathematics is a natural part of the preschool environment. Young children actively construct mathematical knowledge through everyday interactions with their environment, whether inside or outside.



Figure 9.1: When measuring two cups of flour, ½ cup of salt, two tablespoons of oil to help make playdough, children use and build their mathematical knowledge.[1]

Mathematics learning grows naturally from children's curiosity and enthusiasm to learn and explore their environment. During the preschool years, children continue to show a spontaneous interest in mathematics and further develop their mathematical knowledge and skills related to number, quantity, size, shape, and space. Teachers should encourage children's natural enthusiasm and interest in doing mathematics and use it as a vehicle for supporting the development of children's mathematical concepts and skills.

High-quality mathematics education in preschool is not about elementary arithmetic being pushed down onto younger children. It is broader than mere practice in counting and arithmetic. It is about children experiencing mathematics as they explore ideas of more and less, count objects, make comparisons, create patterns, sort and measure objects, and explore shapes in space. Mathematics learning happens throughout the day, and it is integrated with learning and developing in other developmental domains such as language and literacy, social-emotional, science, music, and movement. There is a general consensus "that high-quality, challenging and accessible mathematics education for three- to six-year-old children is a vital foundation for future mathematics learning."

Teachers have a significant role in facilitating children's construction of mathematical concepts. When teachers join children in becoming keen observers of their environment and in reasoning about numbers, shapes, and patterns, mathematics is enjoyable and exciting for all.



Figure 9.2: Songs and games are fun ways to support math.[2]

Teachers may not always realize the extent to which their current everyday classroom practices support children's mathematical development. For example, when singing with children "Five Little Ducks Went Out One Day," incorporating finger play with counting, the teacher develops children's counting skills and understanding of numbers. Discussing with children how many children came to school today and how many are missing supports children's arithmetic and reasoning with numbers. Playing with children in the sandbox by filling up different cups with sand and discussing which cup is the smallest or the largest or how many cups of sand it would take to fill up a bucket introduces children to concepts of comparison and measurement.[3]

References

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9.2: Environmental Factors in Supporting Math

Young children actively construct mathematical knowledge through everyday interactions with their environment. Setting up a high-quality physical environment is essential for children's mathematical development. The preschool environment sets the stage for children's physical and social exploration and construction of mathematical concepts. It should provide access to objects and materials that encourage children to experiment and learn about key mathematical concepts through everyday play.

- Enrich the environment with developmentally appropriate, challenging, and engaging materials that promote mathematical growth
- Integrate math-related materials into all interest areas in the classroom
- Use materials, books, and real-life settings that reflect the culture, ways of life, and languages of the children in the group
- Use children's books to explore mathematics with children
- Be intentional and mindful in setting up and using the physical environment (children do not effectively use materials and engage in experiences just because you provide them)[1]



Figure 9.4: This spindle box is designed to support math in a Montessori classroom.[2]

Research Highlight

Research indicates that the ability to reason about numbers starts as early as infancy. Five-month-olds show sensitivity to the effects of addition or subtraction of items on a small collection of objects. Toddlers viewing three balls put into a container and then one being removed know to search for a smaller number of balls, and many search for exactly two balls.

By the time children are in preschool, prior to having any formal lesson in arithmetic, they use a variety of strategies to solve simple addition and subtraction problems. They may use manipulatives or fingers to represent the numbers in the problem and count out loud to find out the answer. As they get older, they rely less and less on finger counting. To solve an addition problem such as 4 + 2 presented with concrete objects (e.g., color crayons), the child may count all objects "one, two, three, four" and then continue with the second set of objects "five, six" and find out there are a total of six. At a later stage, the child may "count on" from the second set of objects. Knowing the number of objects in the first set (e.g., "four"), the child starts with "four" and continues to count "five, six" to find out the total number of objects, rather than starting to count from "one" with the second set of objects.[3]

Source:

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9.3: Introducing the Foundations

Introducing the Foundations

The California preschool learning foundations for math have been divided into five broad areas or strands.

- Number Sense
- Algebra and Functions (Classification and Patterning)
- Measurement
- Geometry
- Mathematical Reasoning[1]

Supporting Number Sense

The Number Sense strand refers to concepts of numbers and their relationships. It includes the development of counting skills, the understanding of quantities, recognizing ordering relations (which has more, fewer, or less), part-whole relationships, and a basic understanding of “adding to“ and “taking away” operations.



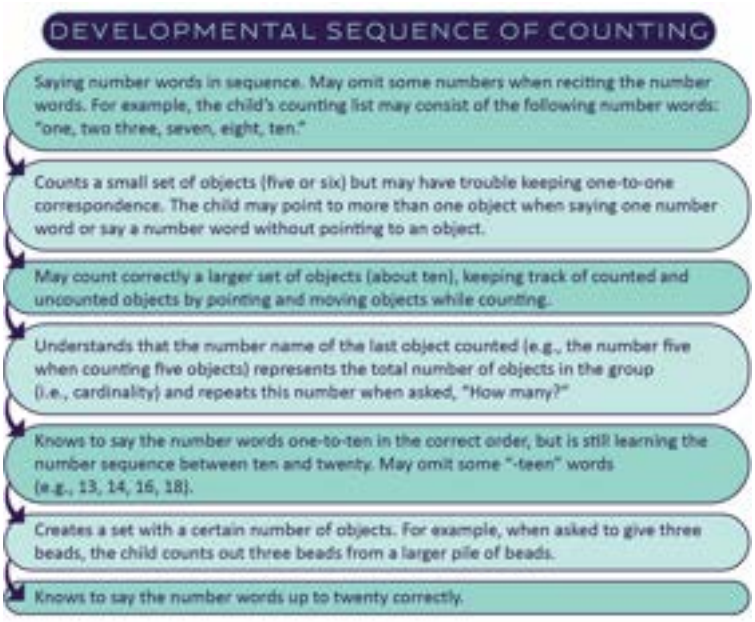
Figure 9.5: These children are exploring numbers and quantity as they play with dominos.[2]

1.0 Children begin to understand numbers and quantities in their everyday environment.	**1.0 Children expand their understanding of numbers and quantities in their everyday environment.**
1.1 Recite numbers in order to ten with increasing accuracy.	1.1 Recite numbers in order to twenty with increasing accuracy.
1.2 Begin to recognize and name a few written numerals.	1.2 Recognize and know the name of some written numerals.
1.3 Identify, without counting, the number of objects in a collection of up to three objects (i.e., subitize).	1.3 Identify, without counting, the number of objects in a collection of u to four objects (i.e., subitize).
1.4 Count up to five objects, using one-to-one correspondence (one object for each number word) with increasing accuracy.	1.4 Count up to ten objects, using one-to-one correspondence (one object for each number word) with increasing accuracy.
1.5 Use the number name of the last object counted to answer the question, “How many . . . ?”	1.5 Understand, when counting, that the number name of the last object counted represents the total number of objects in the group (i.e., cardinality).

2.0 Children begin to understand number relationships and operations in their everyday environment.	**2.0 Children expand their understanding of number relationships and operations in their everyday environment.**
2.1 Compare visually (with or without counting) two groups of objects that are obviously equal or nonequal and communicate, “more” or “same.”	2.1 Compare, by counting or matching, two groups of up to five objects and communicate, “more,” “same as,” or “fewer” (or “less”).
2.2 Understand that adding to (or taking away) one or more objects from a group will increase (or decrease) the number or objects in the group.	2.2 Understand that adding one or taking away one changes the number in a small group of objects by exactly one.

At around 48 months of age	**At around 60 months of age**

At around 48 months of age	At around 60 months of age
2.3 Understand that putting two groups of objects together will make a bigger group.	2.3 Understand that putting two groups of objects together will make a bigger group and that a group of objects can be taken apart into smaller groups.
2.4 Solve simple addition and subtraction problems nonverbally (and often verbally) with a very small number of objects (sums up to 4 or 5).	2.4 Solve simple addition and subtraction problems with a small number of objects (sums up to 10), usually by counting.



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Teachers can support children's development of the number sense foundations with the following:

- Observe children's spontaneous counting and foster growth through scaffolding or modeling
- Encourage counting during everyday interactions and routines
- Include preschool children's home language in counting activities, whenever possible
- Ask questions that encourage purposeful counting
- Foster one-to-one correspondence within the context of daily routines (such as setting the table)
- Support preschool children's ability to apply the counting procedure by
  - Providing a lot of objects to count
  - Starting with small sets
  - Modeling counting
  - Encouraging children to self-correct their counts
- Consider adaptations for children with special needs
- Use games, books, and other materials accessible to preschool children
- Plan group activities focused on counting
- Promote the use of comparison terms (more, same as, fewer, or less) through everyday interactions
- Use everyday interactions and routines to illustrate and discuss addition and subtraction transformations ("adding to" results in more and "taking away" results in less)
- Make estimations
- Use graphing with children[3]



Figure 9.6: Here is a material that supports children's understanding of Arabic numerals and counting.[4]

Vignettes

Playing with cars on the rug, a child argued, "I have more: one, two, three, seven, nine, ten." His friend replied, "No, I have more: one, two, three, four, five, six, seven." The teacher intervened and asked, "How do you think we can find out who has more cars?" "I count," said one of the children. The teacher suggested, "Let's count together," and she modeled counting together with the children. She put the cars in each set, in a row, and lined up the two sets against each other. The teacher pointed to each car while counting.

During snack time, Veronica asked: "Can I have two more crackers?" The teacher replied, "Yes, and I see you already have two crackers. When I give you two more, how many crackers will you have altogether?"[5]

Supporting Algebra and Functions (Classification and Patterning)

Obviously, preschool is not the time to teach traditional algebra, but this is the period when foundational algebraic concepts evolve and gradually develop. Children observe the environment and learn to recognize similarities and differences. They learn to sort, group, and classify objects. They learn to recognize ordering relations, such as large to small, and to identify patterns. They develop the ability to make predictions, form generalizations, and derive rules.



Figure 9.7: As she built this tower, this young girl made a pattern with the colors red and blue.[6]

At around 48 months of age	At around 60 months of age
1.0 Children begin to sort and classify objects in their everyday environment.	**1.0 Children expand their understanding of sorting and classifying objects in their everyday environment.**
1.1 Sort and classify objects by one attribute into two or more groups, with increasing accuracy.	1.1 Sort and classify objects by one or more attributes, into two or more groups, with increasing accuracy (e.g., may sort first by one attribute and then by another attribute).
2.0 Children begin to recognize simple, repeating patterns.	**2.0 Children expand their understanding of simple, repeating patterns.**
2.1 Begin to identify or recognize a simple repeating pattern.	2.1 Recognize and duplicate simple repeating patterns.
2.2 Attempt to create a simple repeating pattern or participate in making one.	2.2 Begin to extend and create simple repeating patterns.

Teachers can support children's development of the algebra and functions foundations with the following:

- Organize the classroom into different categorized storage areas to facilitate classification
- Include materials and objects for sorting in the environment

- Identify opportunities for sorting and classifying in everyday routines
- Recognize and extend sorting in play
- Plan for children at different levels
- Integrate sorting into children's current topic of interest and study
- Point out patterns in the environment
- Engage preschool children in conversations about patterns
- Play with patterns in various formats such as
  - Objects
  - Movement
  - Sounds
  - Rhymes and stories[7]



Figure 9.8: Providing sets of materials in different colors sets up natural opportunities for classification and grouping.[8]

Vignettes

As part of a curriculum unit on the seasons, the children went for a nature walk and collected various types of leaves. During the walk and later in the classroom, the children explored the leaves and were encouraged to describe different attributes of the leaves such as shape (pointy, round, long, needle), size (small, tiny, wide, big), color (red, green, yellow, orange, brown) and texture (smooth, soft, hard, wet, dry, rough). Children were then asked by the teacher to sort the leaves: "Put leaves that belong together in groups."

The teacher asks Enrique, "Why did you put these leaves together and those leaves together?" Enrique responds, "They are same." The teacher asks, "How are these the same?" Enrique points and says in Spanish, "Café aquí, amarillo aquí, y hojas rojas." ("Brown here, yellow, here, and red leaves here."). The teacher points to each group of leaves and says in English, "Great! Brown, yellow, and red leaves. What other ways can we sort the leaves? How about putting all the big leaves here and all the small ones there?" The teacher models for the child, sorting leaves by size. "Where do you think this leaf would go?"

Pause to Reflect

Before reading this section, did you think that algebra was something that should be considered in the preschool classroom? Why or why not?

Supporting Measurement

The Measurement strand involves comparing, ordering, and measuring things. Included in this strand is the child's ability to compare and order objects by length, height, weight, or capacity; to use comparison vocabulary; and to begin to measure. Young children develop an intuitive notion of measurement through natural everyday experiences. They explore and discover properties such as length, height, volume, and weight as they look for a longer block, measure who is taller, pour sand from a small bucket to a larger one, or try to pick up a heavy box and ask for help. They make comparisons to see which is longer, taller, heavier, larger, or smaller.



Figure 9.9: Tools such as this balance can help children compare weight.[9]

At around 48 months of age	At around 60 months of age
1.0 Children begin to compare and order objects.	**1.0 Children expand their understanding of comparing, ordering, and measuring objects.**
1.1 Demonstrate awareness that objects can be compared by length, weight, or capacity, by noting gross differences, using words such as *bigger, longer, heavier,* or *taller,* or by placing objects side by side to compare length.	1.1 Compare two objects by length, weight, or capacity directly (e.g., putting objects side by side) or indirectly (e.g., using a third object).
1.2 Order three objects by size.	1.2 Order four or more objects by size.
This box intentionally left blank	1.3 Measure length using multiple duplicates of the same-size concrete units laid end to end.

Teachers can support children's development of the measurement foundations with the following:

- Provide opportunities to promote measurement concepts in the environment (things to measure and measure tools)
- Observe preschool children's measurement concepts in everyday play and routines
- Facilitate and reinforce measurement concepts in everyday play and routines by
  - Building the descriptive and comparative vocabulary
  - Asking questions to bring their attention to the measurable properties of objects
  - Challenging them to use measurement to solve problems
- Provide opportunities to compare and order objects
- Use literature to illustrate measurement concepts
- Provide small-group activities using standard and nonstandard measurement
- Encourage estimations of measurement
- Encourage recording and documentation of measurements[10]



Figure 9.10: This boy is measuring the boulder with a yardstick[11]

Vignettes

As part of exploring and learning the concept of growth, the children have planted sunflower seeds in the garden. A long stick was attached to each plant, and the teacher asked that every week the children mark on the stick the height of the sunflower. Tracking the growth of sunflowers has generated comparison and measurement experiences. For example, one week the teacher pointed to one of the sunflowers and explained to the children, "Last week when we measured this sunflower, it was up to here. It was seven inches long. This week it is up to here. How many more inches do you think it grew in the past week? What is your estimate?"

Children were encouraged to make estimates and then were invited to measure the growth of this sunflower. "How can we measure how much it has grown since last time?" Children had different ideas. Some children said, "You need a ruler." Others said, "With this" and pointed to a measuring tape. Over time, children were also comparing the sunflowers one to another. On

one occasion, the teacher helped a small group of children compare the height of two flowers by using a string to represent the height of one flower and then laying the string against the second flower.

Children enjoyed tracking the sunflowers' growth and finding out, "Which sunflower is taller?" and "Which is taller?"—the child or the sunflower.[12]

Pause to Reflect

Involving children in measuring things that are meaningful to them is a great way to engage children in mathematics. Do you remember any measurements experiences from your childhood? This could be formal, like keeping track of your height on a wall or growth chart or measuring the weight and/or length of a fish caught or informal, such as recognizing that a new storage container holds more (volume) or noticing the length difference in a new pair of shoes.

Supporting Geometry

Geometry is the study of shapes and spatial relationships. Children enter preschool with a strong intuitive knowledge about shapes, spatial location, and transformations. They learn about geometry as they move in space and interact with objects in their environment. From infancy they begin to form shape concepts as they explore their environment, observe shapes, and play with different objects. Before they can name and define shapes, very young children are able to match and classify objects based on shape. During the preschool years, children develop a growing understanding of shape and spatial relationships. They learn the names of shapes and start to recognize the attributes of two- and three-dimensional shapes. They also develop an understanding of objects in relation to space, learning to describe an object's location (e.g., on top, under), direction (e.g., from, up, down) and distance (e.g., near, far).



Figure 9.11: By using their bodies to make a triangle these children are working with shapes and spatial understanding.[13]

At around 48 months of age	At around 60 months of age
1.0 Children begin to identify and use common shapes in their everyday environment.	**1.0 Children identify and use a variety of shapes in their everyday environment.**
1.1 Identify simple two-dimensional shapes, such as a circle and square.	1.1 Identify, describe, and construct a variety of different shapes, including variations of a circle, triangle, rectangle, square, and other shapes.
1.2 Use individual shapes to represent different elements of a picture of design.	1.2 Combine different shapes to create a picture or design.
2.0 Children begin to understand positions in space.	**2.0 Children expand their understanding of positions in space.**
2.1 Identify positions of objects and people in space, such as in/on/under, up/down, and inside/outside.	2.1 Identify positions of objects and people in space, including in/on/under, up/down, inside/outside, beside/between, and in front/behind.

Teachers can support children's development of the geometry foundations with the following:

- Refer to shapes and encourage the use of shape names in everyday interactions
- Engage preschool children in conversations about shapes, including both
  - Two-dimensional shapes (such as circles, squares, and triangles)
  - Three-dimensional shapes (such as spheres, cubes, and cones)

- Provide materials that encourage preschool children to explore and manipulate shapes in space
- Include books, games, and other learning materials with shape-related themes in the preschool environment
- Provide preschool children with playful opportunities to explore and represent shapes in a variety of ways
- Present preschool children with many different examples of a type of shape
- Provide materials and equipment to promote spatial sense
- Support preschool children's spatial sense in everyday interactions
- Provide preschool children with planned experiences to promote the understanding of spatial sense, including
  - Songs and games
  - Books
  - Construction opportunities[14]



Figure 9.12: Building with pattern blocks such as these, promotes geometry.[15]

Vignettes

The teacher had noticed that several children in her group had shown a strong interest in castles. They built castles in the block area, in the sandbox, and even looked for castles in fairy tale books when visiting the library. The teacher suggested that the group build a big castle outside. They started by gathering the materials. The children brought from home different sized boxes and figures or characters to be included in the castle. The teacher also offered big cylinders, cones, building blocks, construction boards, and other materials. The children made different suggestions: "Put all the big boxes here and the small ones on top of them." "I put it above this for the roof." "We can use these for the tower."

The teacher described their ideas using names of shapes and spatial terms. "So you want to put the small square blocks on top of the big rectangle blocks." "Are you suggesting using the cylinders to build the tower?" The children enjoyed building the structure, using different shapes and materials, and were proud of it.

During circle time, the teacher invited children to describe the castle and how it was built. "Look at the castle you built. Can you tell me what it looks like?" Children were encouraged to use spatial words and the names of shapes in their talk. The activity evolved into a long-term project. The children kept adding more pieces to the structure and added different elements to decorate the castle.[16]

Supporting Mathematical Reasoning

Mathematical reasoning is a key process in learning and developing mathematical knowledge in all areas of mathematics, including number and operations, classification, patterning, measurement, and geometry. It involves the ability to think and reason logically, to apply mathematical knowledge in different problem-solving situations, and to come up with different solutions. Mathematical reasoning is natural to most young children as they explore the environment and make sense of the world around them.

At around 48 months of age	At around 60 months of age
1.0 Children use mathematical thinking to solve problems that arise in their everyday environment.	**1.0 Children expand the use of mathematical thinking to solve problems that arise in their everyday environment.**
1.1 Begin to apply simple mathematical strategies to solve problems in their environment.	1.1 Identify and apply a variety of mathematical strategies to solve problems in their environment.



Figure 9.13: This boy uses mathematical reasoning when he constructs his train tracks.[17]

Teachers can support children's development of the mathematical reasoning foundations with the following:

- Identify and create opportunities for mathematical reasoning through both spontaneous interactions and planned experiences
- Pose meaningful questions that promote investigation and inquiry and challenge children to think through a problem and come up with a solution
- Support preschool children in reasoning mathematically by providing clues, encouragement, and modeling, as needed[18]

Vignettes

The children cleaned up the play yard before going back inside. The teacher, Ms. Denise, had noticed that not all the shovels were picked up from the sandbox. Ms. Denise asked for help saying, "We need all five shovels back in the box so our toys aren't lost. I see here only three. We need more shovels in the box. How many more shovels do we need?" The teacher had noticed that Ling Wa, one of the older preschool children in the group, was counting her fingers, trying to find out how many shovels were missing.

Ling Wa suddenly said, "Ms. Denise, we need two more."

Ms. Denise went further, asking, "Do you think we need two more shovels?" How did you figure that out?"

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9.4: Engaging Families

Teachers can use the following strategies to help families to develop their children's mathematical understanding:

- Communicate to families
  - the broader aspects of developing number sense; for example, using counting in real-life situations, comparing numbers and discussing which is more or less, making estimations (e.g., How many grapes are in this bowl?), and solving simple addition and subtraction problems.
  - what classification and patterning are about and how they contribute to children's understanding of mathematics.
  - the importance of early measuring experiences and types of measurement experiences they can do with children.
  - that mathematical reasoning is being able to think mathematically and explore different ways of solving problems
- Remind parents that daily use of numbers (which are everywhere!) can become learning experiences for children.
- Provide number-related games and books that children can take home or that families can make or purchase.
- Encourage parents to
  - involve children in everyday measurement experiences
  - refer to shapes in the environment when talking with children
  - use spatial words in everyday interactions with children
  - recognize math in everyday events and interactions and turn them into learning experiences[1]



Figure 9.14: Cooking and baking are excellent opportunities to explore math with children.[2]

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9.5: Conclusion

Young children have a natural interest, curiosity, and competence to explore and construct mathematical concepts. Mathematics is a way of thinking and organizing the world around us. It is a natural part of day-to-day activities and events. Mathematics in preschool is learned through children's play and exploration as in the blocks area or the sandbox, through everyday routines such as setting the table and cleaning up, and through participation in teacher-initiated activities. Some teacher-initiated activities are designed with a focus on math, and others may focus on art, movement, literacy, or science but present opportunities for math learning.

When teachers recognize the potential for exposure to math in different situations, they can turn everyday occurrences into exciting and effective mathematics-learning experiences. Children are excited to explore the size or volume of objects, to discover and create patterns, to manipulate and build with shapes, to sort and classify objects, and to try to figure out "how many." Teachers get to experience with children the day-to-day excitement of learning and discovering math. This process is joyful for the children and for the teacher, who guides and challenges them in building mathematical concepts, skills, and language [1]

Pause to Reflect

Many adults (including parents and teachers) shy away from math because they "aren't good at it." How do you feel about math? How comfortable are you "teaching" math? Has the way this chapter presented math affected that at all? If so, how?

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9.6: Guiding Principles for Supporting Math

The following principles will guide teachers' classroom practices in establishing a high-quality, challenging, and sensitive early mathematics preschool program. These principles are partially based on the ten recommendations in *Early Childhood Mathematics: Promoting Good Beginnings* set forth by the National Association for the Education of Young Children and NCTM in 2002.

- · Build on preschool children's natural interest in mathematics and their intuitive and informal mathematical knowledge
- · Encourage inquiry and exploration to foster problem solving and mathematical reasoning
- · Use everyday activities as natural vehicles for developing preschool children's mathematical knowledge
- · Introduce mathematical concepts through intentionally planned experiences (in addition to what they spontaneously engage in)
- · Provide a mathematically rich environment
- · Provide an environment rich in language, and introduce preschool children to the language of mathematics
- · Support English learners in developing mathematical knowledge as they concurrently acquire English
- · Observe children to discover opportunities to clarify, extend, and reinforce their existing mathematical concepts and to help them discover new mathematical concepts
- · Provide an environment in which all children can learn mathematics, set appropriately high expectations for all children, and support individual growth
- · Establish a partnership with parents and other caregivers in supporting children's learning of mathematics[1]



Figure 9.3: This pillow face made with shapes is math in action.[2]

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CHAPTER OVERVIEW

10: Science

Learning Objectives

By the end of the chapter, you should be able to:

- Explain how children's natural curiosity and exploration builds the foundation for science curriculum.
- Justify the importance of active, hands on science experiences.
- Describe the foundations in science that high quality early childhood education programs support
- Discuss how the environment supports children's continual investigation of the natural world
- Identify ways teachers can support children's scientific inquiry and investigation
- Summarize ways to engage families in science curriculum

10.1: Introduction
10.2: Guiding Principles for Supporting Science
10.3: Environmental Factors in Supporting Science
10.4: Introducing the Foundations
10.5: Engaging Families
10.6: Conclusion

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10.1: Introduction

Children have a sense of wonder and natural curiosity about objects and events in their environment. Just like scientists, they seek information and actively explore and investigate the world around them, try things out to see what happens, and confirm or adjust their expectations.

Science is a natural and developmentally appropriate focus for young children. Preschool science is about active learning, not memorizing scientific facts or watching the teacher perform science demonstrations. The purpose of preschool science is to nurture children's habits of inquiry, critical thinking, creativity, innovative problem solving, open mindedness, and the motivation to learn. Preschool science guides children's natural curiosity into opportunities to observe, explore, and inquire about basic phenomena and materials in their world.

From infancy, children gain knowledge and develop concepts about living things and physical objects. Preschool science provides children with focused experiences that allow them to learn ways to explore and extend their knowledge. Children begin to adopt scientific ideas and to acquire the basic skills and language of scientific inquiry (ways to explore and develop knowledge and understanding of scientific ideas). Making observations, posing questions, planning investigations, using tools to gather information, making predictions, recording information, and communicating findings and explanations all combine in an evolving process of developing science understanding and creating a disposition to choose to learn science in the future.

Science can be conducted in any preschool setting. All preschools, regardless of the level of resources and access to nature, can use their existing resources to create a program with meaningful science learning experiences. Pushing cars down an incline, building with blocks, manipulating tubes at the water table, or mixing clay with water are everyday play activities that engage children in experimenting with objects and materials. Collecting leaves, searching for insects in the yard, sorting and classifying fruits and vegetables, and sprouting seeds in pots engage children with living things. Experiences of child-initiated play are important as they provide children with opportunities to construct understanding and integrate knowledge. With teachers' intentional planning, guidance, and support, children's play and interactions with objects can become rich experiences of scientific inquiry and facilitate children's knowledge and understanding of objects and events in the world.

Preschool teachers play a pivotal role in expanding children's understanding of science concepts and developing children's attitudes, skills, and the language of scientific inquiry. The teachers can focus children's attention on particular science concepts, those that are developmentally appropriate, interesting, and engaging for both children and teachers. They can create engaging inquiry experiences, encouraging close observations of objects and events.

Children may draw the connection to their own growth and the growth of other animals and begin to develop a broader understanding of living things. Such experiences of scientific inquiry not only support children's development of scientific knowledge, but provide a natural vehicle for developing children's social skills, and their development in mathematics, language, literacy, and other domains.



Figure 10.1: A teacher used background knowledge to help the children create this bilingual butterfly life cycle documentation.[1]

Preschool teachers do not need to have extensive knowledge about science in order to teach it well, but they should be willing to research and gain general knowledge of the concepts and principles they explore with children. The kind and amount of information or knowledge they need to know is readily available through basic research. Acquiring some background knowledge about the topic helps teachers in planning inquiry experiences and challenging and supporting children through their explorations.

Teachers do not need to have answers to all the questions children will raise. Rather than providing children with answers, teachers can use children's questions as a springboard for further investigations. They may say, "I don't know. Let's find out together." It is essential that teachers become "scientists" together with children, model a questioning mind for children and think out loud, expressing interest and enthusiasm. Teachers' thoughtful guidance and support through inquiry experiences builds a foundation for

children’s understanding of basic science concepts, fosters a positive approach to learning, and develops learning skills and attitudes necessary for later success in science and in other subjects.[2]

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10.2: Guiding Principles for Supporting Science

The following principles guide teachers in establishing a preschool science program that fosters children's curiosity and develops their skills and habits to explore and learn about their world. These principles are consistent with a constructivist approach to learning, where children actively construct knowledge through physical and mental interactions with objects and people in their environment. The principles are drawn from current research-based models and approaches to early childhood science and are consistent with the National Association for the Education of Young Children (NAEYC) guidelines on developmentally appropriate practice.

- The preschool environment supports children's curiosity and encourages inquiry and experimentation
- The teacher
  - acts as a researcher, joining children in exploring their world
  - asks open-ended questions to encourage children to think and talk
  - introduces children to new vocabulary, including scientific terms such as observe, explore, predict, and measure
  - demonstrates appropriate use of scientific tools
  - invites children to reason and draw conclusions
  - encourages children to share their observations and communicate their thoughts
  - models respect for nature
- Content of inquiry is developmentally appropriate and builds on children's prior experiences
- Scientific inquiry experiences are interesting and engaging for children and teachers
- Children explore scientific concepts directly through active, hands-on, minds-on playful experiences
- Children explore scientific concepts in depth through multiple, related learning experiences over time
- Children construct knowledge through social interactions with peers and adults
- Children use language and other forms of communication to express their thoughts, describe observations, and document their work
- Teachers support children who are English learners in understanding and communicating scientific knowledge and skill
- Science is embedded in children's daily activities and play and provides a natural vehicle for integrating mathematics, literacy, and other content areas
- Individual differences are recognized, and all children are included and supported
- The preschool environment, home, and community are connected through science[1]

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10.3: Environmental Factors in Supporting Science

The indoor and outdoor environments provide the context for children's physical and social explorations and construction of scientific concepts. The following are strategies for helping teachers set up a physical environment that is rich, stimulating, and conducive to children's construction of knowledge

- Be thoughtful about what objects and materials to include in the environment
- Provide a variety of natural materials to observe and investigate
- Include objects and materials that allow for creativity and open-ended investigation
- Include living things in the preschool environment
- Include scientific tools for observation, measurement, and documentation
- Make scientific tools available throughout the preschool environment
- Consider adaptations in scientific tools and materials for children with special needs
- Use technology to support children's scientific experiences
- Present documentation of science-related experiences in the preschool environment
- Include children's books with science-related content
- Use the outdoors for natural explorations and investigations
- Organize the space in ways that promote children's explorations
    - Allow space for observations and for objects, materials, tools, and resources related to science
    - Allow for flexibility in the use of physical space and furniture to accommodate the changing needs of each activity
    - In order to promote self-direction and free explorations, tools and materials need to be accessible and consistently available to children
    - Social interactions are necessary for conceptual growth and the development of communication skills
- Always be aware of children's safety
- Foster children's curiosity and questioning
- Guide children in exploring their questions
- Be an active observer
- Talk with children and engage them in conversations during their investigations
- Provide children with time.
- Know when to intervene and when to stand back
- Model the use of scientific vocabulary[1]

Table 10.1: Scientific Vocabulary[2]

Words that can be used to describe scientific activities:
Observe, observation
Predict, prediction
Test
Similar, different
Compare, contrast
Count
Measure
Investigate
Explore
Experiment
Discover
Record
Explain
Hypothesis

Table 10.2: Suggested Scientific Tools[3]

Types of Tools	Names of Tools
Observation Tools Tools to extend close observations	• Magnifying glasses, hand lenses • Binoculars • Tweezers • Microscope Trays (Collectors' trays)
Measurement Tools Tools for measuring length, height, weight, volume, and temperature	• Tape measures, strings, unit blocks • Rulers Scales (e.g., balance scale, bathroom scale) • Measuring cups • Measuring spoons • Thermometer
Recording Tools Tools for recording and documenting information	• Pencils, markers, crayons • Science notebooks/journals, charts • Papers, posters • Camera, computer • Felt board, magnet board • Materials to create 3-D models

Table 10.3: Suggested Open Ended Materials[4]

Types of Materials	Names of Materials
Materials for Building and Construction Open-ended materials can be used in multiple ways and therefore allow for investigation, creativity, and problem solving	Sample Materials: • Blocks of various shapes, sizes, and materials (e.g., wood, foam, • cardboard) • Boxes • Cardboard, planks, ramps • Carpentry tools • Gutters, hollow tubes • Logs • Nuts and bolts • Screws • Sticks • Straws • Wheels, wheeled objects • Other construction materials
Collections of Objects and Reclaimed Materials For exploration of diverse materials and use in sorting, classifying, and ordering activities	Sample Materials: • Bottles • Boxes of various sizes • Buttons • Collection of balls of different sizes • Collection of different types of animals (for sorting and pretend • play) • Collection of household tools made from metal, wood, plastic • Collection of musical instruments • Corks • Fabrics (e.g., a collection of gloves made of wool, rubber, leather) • Glass nuggets • Metal lids • Plastic lids • Screws • Shakers, maracas, castanets • Styrofoam pieces • Wind chimes • Woodchips

Types of Materials	Names of Materials
A Variety of Substances/ Materials	• Cooking utensils • Corn starch • Dough • Eggshells • Flour • Liquids • Salt • Sugar
Natural Materials: Earth Materials Natural materials found on earth	• Clay • Crystals • Minerals • Rocks • Sand • Seashells • Soil • Tools to dig and explore soil (e.g., trowels, containers, magnifiers, • trays) • Tools to explore water (e.g., water table, clear plastic tubes, • connectors, funnels, containers) • Water
Natural Materials: Plant Materials Materials derived from plants and animals	• Bark • Cotton • Feather • Fruits • Fur • Leaves • Seeds, seed pods (e.g., pinecones) • Tree logs • Twigs • Vegetables

Research Highlight

Children bring to science many ideas about how things work. These intuitive understandings or naïve theories that children have constructed often conflict with what is known to be scientifically correct. Children hold preconceptions and misconceptions about different topics of science including forces, changes of matter, light, sound, and earth phenomena. For example, children believe that water disappears when it evaporates or that rain occurs when clouds are shaken. It is important to know how these conceptions differ from the scientific explanation and why children construct these ideas. Children's misconceptions are intuitively

reasonable, from the child's perspective, and are used by children to explain the "why" behind physical events. Some of children's ideas may be cultural beliefs that have been introduced at home. The teacher's role is to guide children through numerous opportunities to discover and re-create concepts, without overtly correcting their misconceptions. Remember, science is about experimentation, and the goal is to support children's scientific thinking, not to merely provide the correct answer.[5]

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10.4: Introducing the Foundations

The preschool learning foundations for science are organized into four broad categories or strands:

- Scientific Inquiry
- Physical Sciences
- Life Sciences
- Earth Sciences[1]

Supporting Scientific Inquiry

Young children's experience of science is an interplay between content knowledge (what children learn about) and inquiry skills (the skills and processes they apply to explore and develop knowledge and understanding of scientific ideas). Children build knowledge and understanding of concepts through active participation in the process of scientific inquiry. Like scientists, children have a natural desire to inquire, but they need guidance in developing the skills of scientific inquiry.

- Observation and investigation skills involve ways to observe, compare, measure, classify, predict, and to check and investigate objects and events.
- Documentation and communication skills are employed to record information and to communicate findings and explanations with others.

Skills of scientific inquiry provide children with the tools for investigating and learning about science topics. Such experiences build habits of questioning, critical thinking, innovative problem solving, communication, collaboration, and decision making.

Scientific inquiry skills are integral to children's ongoing play and explorations and are not taught in isolation. Children develop their abilities to make observations, ask questions, and gather information, as part of meaningful exploration and investigation experiences. Teachers can establish an environment with a culture of inquiry and facilitate children's use of scientific skills and language through everyday explorations and planned experiences of scientific inquiry.

At around 48 months of age	At around 60 months of age
1.1 Demonstrate curiosity and raise simple questions about objects and events in their environment.	1.1 Demonstrate curiosity and an increased ability to raise questions about objects and events in their environment.
1.2 Observe[1] objects and events in the environment and describe them.	1.2 Observe objects and events in the environment and describe them in greater detail.
1.3 Begin to identify and use, with adult support, some observation and measurement tools.	1.3 Identify and use a greater variety of observation and measurement tools. May spontaneously use an appropriate tool, though may still need adult support.
1.4 Compare and contrast objects and events and begin to describe similarities and differences.	1.4 Compare and contrast objects and events and describe similarities and differences in greater detail.
1.5 Make predictions and check them, with adult support, through concrete experiences.	1.5 Demonstrate an increased ability to make predictions and check them (e.g., may make more complex predictions, offer ways to test predictions, and discuss why predictions were correct or incorrect.
1.6 Make inferences and form generalizations based on evidence.	1.6 Demonstrate an increased ability to make inferences and form generalizations based on evidence.

1. Other related scientific processes, such as classifying, ordering, and measuring, are addressed in the foundations for mathematics.

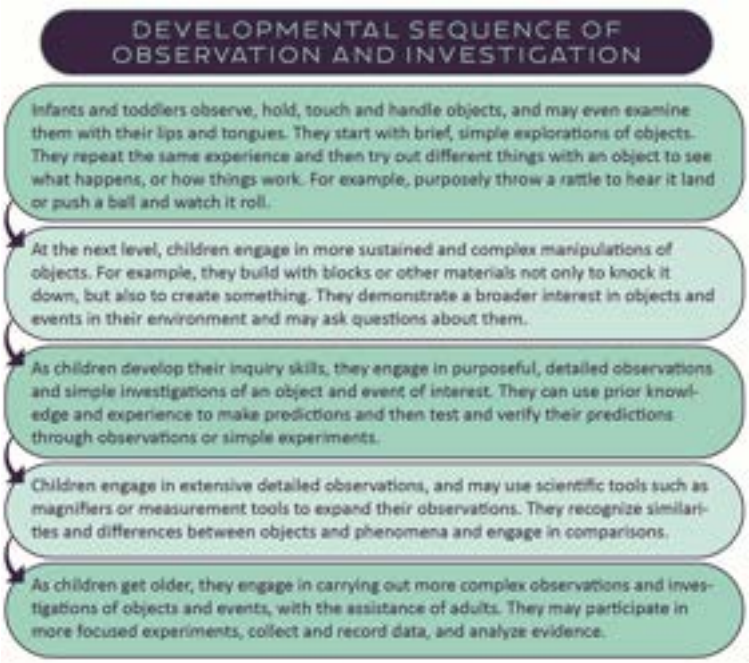

Figure 10.2: Image by Ian Joslin is licensed by CC-BY-4.0

2.0 Documentation and Communication

At around 48 months of age	At around 60 months of age
2.1 Record observations or findings in various ways, with adult assistance, including pictures, words, (dictated to adults), charts, journals, models, and photos.	2.1 Record information more regularly and in greater detail in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, photos, or by tallying and graphing information.
2.2 Share findings and explanations which may be correct or incorrect, with or without adult prompting.	2.2 Share findings and explanations, which may be correct or incorrect, more spontaneously and with greater detail.

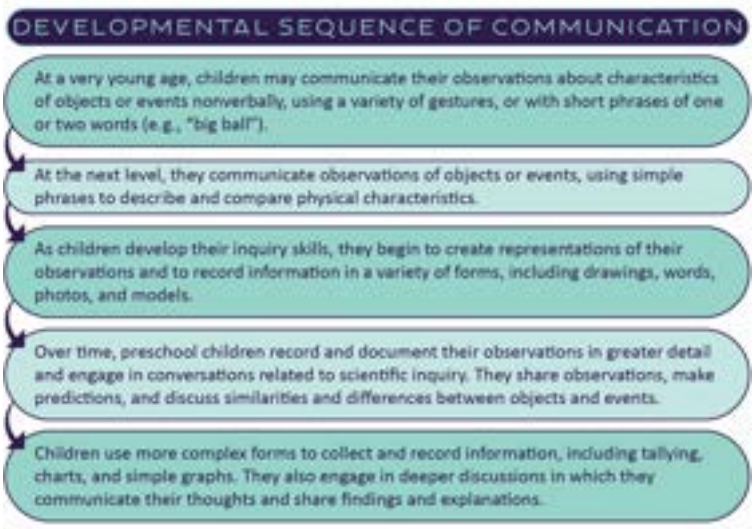

Figure 10.3: Image by Ian Joslin is licensed by CC-BY-4.0

Teachers can support children's development of the scientific inquiry foundations with the following:

- Facilitate children's observation skills by using the term "observe" and introduce the process with a familiar item
- Talk with children and ask questions to guide their observations
- Invite children to observe objects and phenomena related to the current focus of inquiry

- Promote the use of scientific tools to extend children's observations and investigations of objects
- Introduce children to scientific tools and their function and support their appropriate use
- Encourage children to make predictions first and then check their predictions
- Remind children that predictions do not have to be right
- Record children's predictions
- Facilitate children's ability to make inferences and draw conclusions (when inferring and drawing conclusions, children observe what happened and make an assumption about the cause)
- Use everyday observations to model inferring
- Encourage children to explain the reasoning behind their inferences
- Encourage children to record observations and document investigations and findings
- Promote the use of different forms to record and document information
- Consider adaptations for children with special needs
- Encourage children to describe their representations while you write their words
- Encourage different means of communication including home language, sign language, and communication devices
- Invite children to record collaboratively, using charts, graphs, or models
- Ask open-ended questions to
  - Encourage children to share their observations
  - Facilitate problem-solving and investigations
  - Elicit predictions and explanations
- Engage children in collaborative discussions[2]

Vignettes

While exploring the play yard, children became fascinated with pill bugs (usually called roly polies by children). In the yard, they would look for pill bugs and enjoy watching them curl into balls. One day, Ms. Lopez noticed that a group of children collected pill bugs in a bucket. She invited the children to put the "roly polies" on a tray and observe them closely at the outdoor investigation table. Ms. Lopez said, "Let's use our tools and look really closely at the pill bugs. What do you notice about their body?" Ms. Lopez assisted Jennifer in holding the magnifier above the pill bug: "Wow, it looks so big," Jennifer said. Jose observes the pill bug with a magnifier and gets excited: "I can see its head." Ryan asked, "When is it going to open up again? I want to see how many legs it has."

Ms. Brown presented children with a big cube of ice. She asked the children to touch or hold it and tell her what they notice about it: "What does it feel like? What does it look like?" Children shared their observations: "It is cold." "It is slippery." "It is very smooth." "It is wet." "It is white." "It is square." Ms. Brown asked the children, "What do you know about ice?" Some children shared their ideas: "We keep it in the freezer," "It's very, very cold." "If you put it in water, it disappears." She invited children to draw their observations of the ice cube in their notebooks. The next day, Ms. Brown told the children that together they are going to explore what will happen to ice when it is left outside of the freezer. She has asked children: "What do you think will happen to this ice cube if we leave it in this bowl? What is your prediction?" "Will it stay the same?" "What will be different?" Children made predictions, and she wrote them on a chart (e.g., "It will not be so cold anymore." "It will turn into water"), "After lunch, we'll check our ice cube and find out what happened."

The children in Ms. Moreno's group are taking turns bringing home the picture book they created as a group. Today, it is Emilia's turn to take home this book. This picture book was created to document the growth of their plant. Emilia points to the photos in the book (taken by Ms. Moreno to document the process) and to children's drawings. She tells the story out loud to her grandmother, who is picking her up, "First we had to buy seeds (points to a photo of the seeds packet on the first page), then we put the soil, and then we put the seeds inside the dirt . . ." Emilia continues with more details while looking at the pictures in the book: how they put the pot in the sun, watered the plant, and measured its growth. "Here it was one inch, and here it was bigger, and here it was very tall, and it has many leaves." At home, Emilia will share it with her family, and together they will retell the story in her home language.[3]

Pause to Reflect

How would you facilitate children's thinking skills through everyday observations and interactions?

Supporting Physical Sciences

Young children's inquiry in physical science involves the active exploration of nonliving objects and materials and of physical events in their everyday environment. When children build with blocks; play with different balls; push or slide objects of different kinds; play with water, sand, clay, and other objects in the preschool environment; they explore materials in different ways and begin to form ideas about the physical properties. They manipulate objects, act on them, and observe what happens. They may try a certain strategy over and over to see if the same result happens again. Through such exploratory interactions with objects and solid and nonsolid materials, children can learn about cause-and-effect relationships, the physical properties of objects and materials (e.g., size, shape, rigidity, texture), and about changes and transformations of objects and materials. For example, when building with various kinds of blocks, children may learn about the size and shape of the blocks and about the characteristics of the materials used to make the blocks (e.g., wood, foam, plastic). They may discover that the big cardboard blocks should be used at the bottom of a tower and the small unit blocks on top in order to create a strong and stable tower. When playing at the water table, they experience how water flows down and takes the shape of the container.



Figure 10.4: What containers could be added to this water table to expand the children's exploration?[4]

With teachers' guidance, children's everyday play can become rich, hands-on inquiry experiences of the key concepts in physical sciences. Teachers can provide children with materials to broaden their investigation. They encourage children to try out their ideas, even if the teacher knows the child's strategy will not create the desired result. Teachers challenge children's thinking by asking questions that focus attention on key science concepts being investigated: "What can you do to make the bridge higher?" "How can we make mud?" "Why did the ball roll down in this direction?" Interactions of this kind provide children with opportunities to extend their experimentations with objects, to notice patterns of cause-and-effect, to reason and think more deeply about the phenomena they observe, and to use language to describe, explain, and reflect on their work.

Key Concepts in Physical Sciences

In exploring objects and materials, children develop understanding of key concepts about the physical world.

- They learn about the size, shape, weight, texture and other properties of objects and materials.
- They learn about the form and function of objects and that the form of an object supports its function.
- They continue to learn about cause and effect—that certain actions lead to certain reactions.
- They learn about changes in objects and materials. For instance, how mixing, heating, or cutting will produce changes in materials and that some changes are reversible and some are irreversible.
- They begin to understand that objects not in motion are in a state of balance.

They learn more about force and motion (inanimate objects are set in motion; pushing and pulling put objects in motion; objects can move in different ways).

1.0 Properties and Characteristics of Nonliving Objects and Materials

At around 48 months of age	At around 60 months of age
1.1 Observe, investigate, and identify the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).	1.1 Demonstrate increased ability to observe, investigate, and describe in greater detail the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).

2.0 Changes in Nonliving Objects and Materials

At around 48 months of age	At around 60 months of age
2.1 Demonstrate awareness that objects and materials can change; explore and describe changes in objects and materials (rearrangement of parts; change in color, shape, texture, temperature).	2.1 Demonstrate increased awareness that objects and materials can change in various ways. Explore and describe in greater detail changes in objects and materials (rearrangement of parts; change in color, shape, texture, temperature).
2.2 Observe and describe the motion of objects (in terms of speed, direction, the ways things move), and explore the effect of own actions (e.g., pushing, pulling, rolling, dropping) on making objects move.	2.2 Demonstrate an increased ability to observe and describe in greater detail the motion of objects (in terms of speed, direction, the ways things move), and to explore the effect of own actions on the motions of objects, including changes in speed and direction.

Teachers can support children's development of the physical sciences foundations with the following:

- Provide children with opportunities to explore a variety of objects and materials in the daily environment.
- Prepare yourself and be purposeful about the scientific concepts children will investigate while engaged with objects and materials.
- Engage children in projects that allow them to explore, experiment, and invent with objects and materials for an extended period of time.
- Experiment with materials and objects before offering them to children.
- Invite children to observe and describe the characteristics and physical properties of the objects and materials they investigate.
- Plan opportunities for children to sort and classify objects and materials and reflect on similarities and differences.
- Provide children with opportunities to build and experiment with simple machines. Simple machines refer to six mechanical devices that make it easier to move or lift something: levers, a wheel on an axle, a pulley, an inclined plane, a wedge, and a screw.
- Provide children with opportunities to investigate the form and function of different tools and machines.
- Avoid presenting children with activities of "magical" science (such as chemical "snow" and exploding volcanoes) that are done for entertainment purposes and with the children as observers (not participants).
- Select activities or projects in which children can vary their actions on objects and observe the immediate reactions to their actions.
- Use cooking activities as opportunities to reason about transformations in materials.
- Invite children to set up an experiment and collect and analyze data.
- Focus children's attention on the effect of one aspect (variable) at a time.
- Lead children to make predictions about what they expect to happen.
- Ask questions to raise children's awareness of how they produced an effect.
- Encourage children to record and document investigations with objects and materials.[5]



Figure 10.3: There is science at play when making tamales.[6]

Vignettes

Ms. Yen introduced children to a variety of solid materials, including feathers, wood chips, pennies, foam pieces, marbles, and eggshells. After the materials were introduced, she left them for children's free exploration in the discovery center. The center also included tools such as magnifiers, trays, cups, and a balance scale to expand their observations of the materials, and the children were familiar with how to use them. Children enjoyed exploring these materials, especially finding out how they are

similar or different from each other. One question they investigated was, “Which materials are rigid and which are soft?” Children tried pressing, poking, twisting, tearing, and breaking the different materials and shared their conclusions with their classmates as they worked: “The pennies are hard.” “The feathers are very soft. You can bend them, and they do not break.” “The eggshell breaks when you press on it, and these (points to foam pieces) are soft, and you can break them like this (the child demonstrates how they break easily).” “The wood chips are very hard, too.” With the teacher’s assistance, some children recorded their findings on the chart, by gluing a sample of each material under “Rigid” or “Soft.”

During the last cooking activity Ms. Moreno noticed that the children were fascinated when they mixed the flour with water. The children’s reactions gave Ms. Moreno an idea for extending the group’s explorations with dry materials and engaging them in exploring mixtures. In small-group time, Ms. Moreno introduced the children to different dry materials, such as salt, flour, cornstarch, and sugar, and invited them to explore them. She then suggested that they mix some of these materials with water. The teacher asked the children questions to invite them to make predictions: “What do you think will happen if we add salt to water . . .” As the children watched the salt crystals disappear, they discovered that when salt is mixed with water, it cannot be seen anymore. The teacher immediately asked questions that encouraged the children to check their predictions. Ms. Moreno asked the children, “What happened when you stirred the salt in water?” Children came up with different answers: “It disappears.” “It is inside the water, but you cannot see it anymore.” Ms. Moreno invited the children to taste plain water and the water stirred with salt, and tell the difference. When the children communicated that they tasted the salt and that it was still in the water, the teacher introduced the word dissolve to the children and explained that the salt dissolved in water to make salt water. The children tried out different materials and discovered that some dissolve in water and others, such as flour or sand, do not. The next day, the children tried mixing other materials such as glue, lemonade powder, tea leaves, and play dough to find out what happens to each of these materials when mixed with water.

The children were playing at the water table and taking turns tossing an object into the water, to find out which objects sink and which objects float. Ms. Schultz held a plastic cup, and asked, “What do you predict will happen to this cup when you put it in the water? Will it sink or float?” David said, “It will float like the other cup,” referring to the Styrofoam cup they tested earlier. Dana said, “It will sink because it is more hard than the white cup.” Gaby said, “Maybe if we put it in like this (facing up), it will not sink.” Ms. Schultz asked, “Why do you think so?” Gaby said, “Because the water will not go inside.” She put the cup in the water, facing up, and the children observed the cup floating. “You see! It is floating.” David said, “Now, let’s put it in like this (facing down).” Ms. Shultz said, “That’s a great idea. Let’s put the cup in the water facing down and see what happens. What is your prediction? Will the cup sink or float?”

The children predicted that the plastic cup will float again. Ms. Shultz asked, “Why do you think it will float?” David answered, “Because it was floating before.” She put the cup in the water, facing down, and everyone, including Ms. Schultz, was surprised when they saw the cup sinking in the water. The children were fascinated with what they discovered. They kept putting the cup in the water, one time facing up and one time facing down, watching it turn from a “floater” to a “sinker.”[7]

Pause to Reflect

How can different interest areas in the preschool environment (e.g., the block area, the water table, the sensory table, and the playground) be used to enhance children’s explorations of objects and materials?

Supporting Life Sciences

Life sciences for young children are about nurturing children’s curiosity and fascination with the natural world and building their understanding and appreciation of living things. Preschool children have various opportunities to engage with living things in their preschool environment. When playing in the yard, they may come across small animals or bugs or notice changes in the trees. They may help take care of the class pet or plants in the room. They participate in different planned activities related to living things, such as going on a neighborhood walk to collect different leaves, search for bugs or other small animals in the yard, sort and classify fruits and vegetables, explore various seeds, plant bulbs, sprout seeds, or grow a garden. Such experiences in the preschool environment can provide the context for rich experiences of scientific inquiry about properties and characteristics of living things.

The goal is to provide children with opportunities which allow them to closely observe living things, including human beings, and to encourage them to question, explore and investigate physical characteristics, behaviors, habitats, and needs. Through ongoing opportunities to observe and discuss what they have seen, children develop their ideas about living things, how they are the same, and how they differ from one another. They start to sort and classify and look for patterns. They begin to recognize commonalities

such as the physical structure and basic needs of different living things, but also the diversity and variation among different organisms.



Figure 10.4: Classrooms can get a butterfly kit to experience the life cycle of butterflies[8]

The teacher has an important role in guiding children through experiences of exploring and observing animals and plants around them, whether outdoors, as they exist in nature, or indoors in an environment that is as natural as possible. They deepen children's understanding of living things, including features of their own body parts and processes, by encouraging children to observe closely, raise questions, investigate more about a topic, describe and represent their observations, and by creating opportunities for discussion and reflection. At the same time, they model wonder and excitement of the natural world and an attitude of respect for living things and their habitats.

Key Concepts in Life Sciences

In studying animals, plants, and humans, children develop an understanding of key concepts related to living things such as:

- All living things have basic needs that must be met for them to grow and survive.
- The body parts of living things are useful for them in meeting their needs.
- The physical characteristics of living things reflect how they move and behave.
- Living things have their habitats in different environments.
- All living things grow over time and go through changes related to the life cycle.

There is variation and diversity in living things

1.0 Properties and Characteristics of Living Things

At around 48 months of age	At around 60 months of age
1.1 Identify characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.	1.1 Identify characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.
1.2 Begin to indicate knowledge of body parts and process (e.g., eating, sleeping, breathing, walking) in humans and other animals.	1.2 Indicate greater knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.
1.3 Identify the habitats of people and familiar animals and plants in the environment and begin to realize that living things have habitats in different environments.	1.3 Recognize that living things have habitats in different environments suited to their unique needs.
1.4 Indicate knowledge of the difference between animate objects (animals, people) and inanimate objects. For example, expect animate objects to initiate movement and to have different insides than inanimate objects.	1.4 Indicate knowledge of the difference between animate and inanimate objects, providing greater detail, and recognizing that only animals and plants undergo biological processes such as growth, illness, healing, and dying.

2.0 Changes in Living Things

At around 48 months of age	At around 60 months of age
2.1 Observe and explore growth and changes in humans, animals, and plants and demonstrate an understanding that living things change over time in size and in other capacities as they grow.	2.1 Observe and explore growth in humans, animals, and plants and demonstrate an increased understanding that living things change as they grow and go through transformations related to the life cycle (for example, from a caterpillar to butterfly).

At around 48 months of age	At around 60 months of age
2.2 Recognize that animals and plants require care and begin to associate feeding and watering with the growth of humans, animals, and plants.	2.2 Develop a greater understanding of the basic needs of humans, animals, and plants (e.g., food, water, sunshine, shelter).



Figure 10.5: Children can help plant, maintain, and harvest from a garden.[9]

Teachers can support children's development of the life sciences foundations with the following:

- Focus children's explorations on key concepts of living things
- Take children on outdoor explorations of plants and animals.
- Model curiosity and interest in nature
- Remind children to be respectful of nature
- Engage children in conversations about what they notice and point their attention to important aspects of living things
- Document children's outdoor explorations
- Provide children with tools for explorations of living things
- Include plants and animals indoors
- Engage children in close observations of living things (animals, plants, and fruits and vegetables)
- Invite children to share in-home experiences with living things
- Use books to enrich and extend children's study of living things
- Provide children with opportunities to care for plants and animals
- Provide children with opportunities to observe and monitor plants' growth and development
- Engage children in reflective conversations in small or large groups
- Involve families in children's planting and gardening experiences
- Provide children with opportunities to observe changes and transformations in animals passing through stages of the life cycle
- Provide children with opportunities to observe changes and transformations in animals passing through stages of the life cycle
- Discuss the death of living things from the scientific perspective of death, and explain to them that all living things die (families should be informed of the discussions to be prepared to answer questions).
- Invite children to investigate their own growth[10]

Vignettes

While playing outdoors, Gregory pointed up to the oak tree and shouted, "Look, a squirrel up in the tree." Joanna whispered, "Shhh . . . You will scare the squirrel away." They stood there silently, watching the squirrel. Soon more children joined them. Ms. Leon, watched them observing the squirrel and asked, "What do you think the squirrel is doing?" (Pause) "What do you think he is looking for?" She listened carefully to the children's ideas and questions while observing the squirrel: "It is climbing up." "He is looking at us." "I think he is looking for something to eat." Joanna asked Ms. Leon, "Is that where he lives?" Ms. Leon turned the question right back to her and asked, "What do you think?" Ms. Leon expected this question to come up because recently they were talking about the habitats of different animals and commented that some animals live in trees. Later, during group time, Ms. Leon invited children to share with the group their observations of the squirrel. She brought up her question again: "What do you think the squirrel was looking for in the tree?" Some children said that squirrels were looking for food. Ms. Leon asked, "What kind of food do you think squirrels may find in the tree?" Joanna suggested, "Maybe they eat leaves." Miguel said, "Maybe the squirrel was looking for seeds." Ms. Leon answered, "Oh, so you think that

squirrels may eat leaves, nuts, and seeds. Let's get our small binoculars and journals and observe the squirrels to find out what squirrels are doing in the tree and what they like to eat.

The teacher cut open the avocado, and Danny got really excited. "I knew there was going to be a big seed inside." Ms. Wilson replied, "You did predict that there was going to be a big seed inside." She invited children to observe the inside of the avocado. Rena said, "It has this thing inside." Sara pointed to the empty half and said, "This is where it was." The teacher replied, "It is the avocado seed." She took out the seed and handed it to Rena. "Oh, it is slippery." Ms. Wilson put it on a tray and said, "It does feel very slimy." She invited children to observe the seed. "What does it look like? What does it feel like?" After she gave children time to observe the avocado seed, she pointed to the other fruits in the basket and said, "I wonder if these fruits are also going to have seeds inside. What do you think?" Rena said, "Maybe the orange will not have very big seeds." Danny said, "The avocado has a big seed inside, not the orange." Ms. Wilson asked, "What do you think is inside the orange?" The teacher invited the children to predict what kind of seeds are inside an orange, a mango, a butternut squash, a papaya, and a plum and wrote down their predictions. She then invited the children to cut open the fruits and check what was inside[11]

Pause to Reflect

How can you find out what ideas, interests, cultural beliefs, or fears the children in your group bring to their study of living things?

Supporting Earth Sciences

When children play with dirt, jump in puddles, collect rocks, observe the rain, or feel the heat of the sun, they have direct contact with aspects of the earth. Daily interactions and direct contact with objects and earth events provide children with the context to observe and explore properties of earth materials and to identify patterns of change in the world around them (for example, patterns of day and night, and changes in temperature). With teachers' guidance, children's everyday interactions and direct contact with objects and earth events can become rich, inquiry based experiences of earth sciences.



Figure 10.6: Exploring outdoors helps connect children with nature.[12]

Teachers can provide children with opportunities to explore the physical properties of earth materials and to observe, record, and track changes in the weather and how it affects the living world. Exploratory interactions with earth materials and ongoing observations of earth phenomena enhance children's connection to nature and raise their awareness of the importance of caring for and respecting the natural world. The box below summarizes key concepts in earth sciences. The following section provides practical strategies to engage children in rich, focused explorations of earth materials and phenomena.

Key Concepts in Earth Sciences

In studying earth materials and phenomena, children become aware of key characteristics of earth:

- Earth materials (soil, sand, rocks, air, water) are part of the natural environment.
- Earth materials have different properties.
- There are patterns of change in earth phenomena (day/night; seasons). Natural objects in the sky (sun, moon) are not always in the same place.
- Temperature and weather changes can be tracked over time.
- Weather and seasonal changes affect the environment.

People should respect and care for the environment.

1.0 Properties and Characteristics of Earth Materials and Objects

At around 48 months of age	At around 60 months of age
1.1 Investigate characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.	1.1 Demonstrate increased ability to investigate and compare characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.

2.0 Changes in the Earth

At around 48 months of age	At around 60 months of age
2.1 Observe and describe natural objects in the sky (sun, moon, stars, clouds) and how they appear to move and change.	2.1 Demonstrate an increased ability to observe and describe natural objects in the sky and to notice patterns of movement and apparent changes in the sun and the moon.
2.2 Notice and describe changes in weather.	2.2 Demonstrate an increased ability to observe, describe, and discuss changes in weather.
2.3 Begin to notice the effects of weather and seasonal changes on their own lives and on plants and animals.	2.3 Demonstrate an increased ability to notice and describe the effects of weather and seasonal changes on their own lives and on plants and animals.
2.4 Develop awareness of the importance of caring for and respecting the environment and participate in activities related to its care.	2.4 Demonstrate an increased awareness and the ability to discuss in simple terms how to care for the environment, and participate in activities related to its care.

Teachers can support children's development of the earth science foundations with the following:

- Take children on a search for earth materials in nature
- Invite children to observe, compare and classify earth materials
- Invite children to explore and experiment with earth materials
- Use opportunities to explore earth materials in the context of studying living things or when exploring other solid and nonsolid materials
- Invite children to share in-home experiences with earth materials
- Engage children in observing and describing the sun and the moon and other natural objects in the sky
- Provide children with opportunities to observe, record, and discuss the weather
  - Develop an awareness of the daily weather
  - Invite children to record and discuss changes in the weather
  - Invite children to observe and discuss the effects of weather and seasonal changes on their life and the environment around them
  - Engage families in children's explorations of weather and seasonal change
- Model and discuss respect for the environment
- Engage children in caring for and protecting the environment through everyday routines in the preschool environment
- Collect and use recycled materials[13]

Vignettes

Ms. Tina observes the children playing at the sandbox. Ted fills up the bucket with water and pours it on the sand. Olivia and Ted watch as the water is absorbed by the sand. Next they begin to pile the sand into a mound. Olivia says, "It's like a mountain. Let's make it bigger." They add more sand and compact it together. Their mountain is beginning to take shape and gets bigger and bigger. Olivia says, "I am going to get water." She gets a small bucket and gently pours it on top of the mountain. She notices how the water creates a depression in the sand and then flows down. Ted says, "Like a river." He gets more water in the bucket and pours it again in the same place. The depressed part gets bigger. Ms. Tina gets closer and asks, "What happens when the water is flowing down your mountain?" Ted describes, "The water makes a hole in the mountain. Olivia says, "It takes the sand down." Ms. Tina said, "A little bit of water at the beginning helped to hold the mountain together, but pouring a large amount of water causes the sand to slip and slide away. It can also happen in nature, when water breaks down the land."

Today, Rena's father came to school to share with the group some of his kites and to build a kite with the children. First, he invited the children to observe him flying one of his kites in the air, and then the children took turns flying the kite together with him. After they came inside, Rena's father asked the children, "So what do you think makes the kite fly up?" Children came up with different answers. "The wind touches the kite all around, and it goes up in the sky. It pushes the kite up, up, up, up in the sky." Another child said, "The air goes through the holes of the kite, and it moves the kite to the sky." Rena's dad invited children to notice the shape of the kite, and together they discovered that the kites he brought have a similar shape, "like a diamond." He also asked them why they think the kite needs to be light and not heavy, and one of the children said, "Because it needs to fly up." Rena's dad told them, "A long time ago, kites were invented in China. People used bamboo sticks and silk to make kites." He then invited children to build a kite. "Now we are going to build our own kite. What do you think we need to build a kite?

Every month the children observe the oak tree outdoors and keep records of how it changes from month to month. Ms. B. encourages children to make drawings of the tree, and together with the children, she takes photos of it once a month. While observing the tree, Ms. B invites them to share their observations: "What changes do you see?" "Why do you think the tree changed like that?" Through such discussions, Ms. B helps children to begin to draw the connection between the changes they observe in the tree and the changes in the weather and seasons. In the fall, children collected fallen oak acorns and leaves. They were fascinated with its deeply lobed leaves, and some of them made drawings of the oak leaves in their journals. They also observed the acorns and talked about them as well as other trees around the yard that have dry fruit similar to the acorn. Ms. B creates a class book with the observational drawings, children's words, and photographs documenting the changes the children observe each month. By the end of the school year, the book will include their documentation of the tree in order of the seasons: fall, winter, spring, and summer.[14]

References

[1] The California Preschool Curriculum Framework, Volume 3 by the California Department of Education is used with permission

[2] The California Preschool Curriculum Framework, Volume 3 by the California Department of Education is used with permission;

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10.5: Engaging Families

Teachers can make the following suggestions to families to facilitate their support of history and social science

- Use science learning as an opportunity to involve families by inviting them to the program and by sending home suggestions for activities that they can do with their children.
- Communicate to families their important role in supporting children's curiosity and the development of scientific knowledge.
- Share with family members your approach to science and how you support children's development of inquiry skills.
- Invite family members to come and talk with the teacher and children about their beliefs and connections to nature
- Share the importance of active hands-on explorations of objects and materials
- Inform families about children's explorations and experimentations with objects and materials.
- Involve family members as volunteers and rich resources in the preschool environment.
- Provide families with enrichment and follow-up activities they can do with children at home.
- Ask families about children's previous experiences, cultural beliefs, and theories about living things.
- Share with families children's experiences with science in the classroom.
- Remind family members of the many opportunities to engage children in life science explorations outside the preschool environment.
- Provide family members with tips to support children's awareness and understanding of their natural environment.[1]

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10.6: Conclusion

Young children have a sense of wonder and a natural curiosity about objects and events in their world. Through exploratory play and experimentation with objects and materials, they discover how to make their car go downhill faster or how to control the movement and flow of water. They are excited to find out what's inside a pumpkin, how trees change over the year, how the rain feels and smells, and why pill bugs curl into a ball. The preschool environment nurtures children's innate or natural dispositions to observe and seek information and guides their curiosity into opportunities to observe, explore, and inquire about objects and phenomena in their environment. Teachers provide children with a purposefully planned, play-based, supportive environment that expands their explorations. Children's explorations and guided investigations deepen children's understanding of concepts in science and develop their attitudes, skills, and language of scientific inquiry.



Figure 10.7: Capturing documentation of the worm this child found while exploring outside.[1]

While investigating concepts from physical, life, and earth sciences, teachers encourage children to ask questions, to observe and investigate, to predict and experiment with objects and materials, to draw conclusions, to document their work, and to share their observations and ideas with others. Such experiences not only develop children's scientific inquiry skills, but also provide the context for learning and developing their language (building vocabulary in English and in their home language), literacy, mathematics, and social skills. Science also offers a special avenue to include families in the curriculum and bridge the home and preschool cultures. Preschool science is inclusive and prepares children for the scientific skills and knowledge they encounter later in school. It fosters a joy of discovery, a positive approach to learning, and the development of skills and attitudes necessary for many areas of learning throughout life.[2]

Pause to Reflect

What aspects of the natural world are you curious about? How might that affect how you plan curriculum for science?

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CHAPTER OVERVIEW

11: Creative Arts

Learning Objectives

By the end of the chapter, you should be able to:

- Explain how young children naturally express themselves through the arts
- Advocate for the arts being included in early childhood education
- Describe each of the four disciplines/strands of the creative arts
- Summarize the foundations in the arts that high quality early childhood programs support
- List materials that educators can include in their classrooms to support the arts
- Identify ways for educators to support the arts through their curriculum planning
- Discuss ways to engage families in curriculum for the arts

11.1: Introduction
11.2: Supporting Children's Learning
11.3: Guiding Principles
11.4: Environments and Materials
11.5: Supporting the Visual Arts
11.6: Supporting Music
11.7: Supporting Drama
11.8: Supporting Dance
11.9: Engaging Families
11.10: Conclusion

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11.1: Introduction

The creative arts are as natural to young children's lives as language and play are. The arts build skills such as problem solving and critical thinking; they bring parallel opportunities for the development of language/communication, mathematics, and the development of social and interpersonal skills. The following activities are often referred to as children's play: scribbling with a crayon, pretending to be a pirate or a bird, humming bits of a tune, banging on a drum, or swaying to music. But these behaviors in fact show elements of artistic expression and creation that support continuous development of artistic skills. They also show the hallmarks of children's abilities to express themselves through symbols and aesthetic images.[1]

The creative arts domain is presented in four familiar disciplines:

Table 11.1: Creative Arts Disciplines

Examples of Art	Types of Art
 Figure 11.1[2]	**Visual Art**: The visual arts include the practice of drawing, painting, sculpting, and assembling collages in two or three dimensions. Preschool visual art is process-based and open-ended, allowing children to explore by using a variety of materials. The product is not the focus, though the children will likely view their creation as a masterpiece!
 Figure 11.2[3]	**Music:** Preschoolers love to listen to music as well as sing along and move with music. Music learning in preschool is a time to make new discoveries. Preschoolers can engage in music making, performing rhythms, musical sounds and passages with a variety of instruments, or simply sing along to a favorite tune.
 Figure 11.3[4]	**Drama**: For preschoolers, this domain involves both spontaneous dramatic play and teacher-structured drama, each of which inspires the other. Preschoolers are naturally inclined to engage in solitary, parallel, and group play, and draw on these experiences when acting out situations and using props (with teacher guidance). Similarly, engaging in drama feeds children's imagination and inspires dramatic play. A goal in dramatic play and drama for preschoolers is unleashing the child's imagination. Thus, the focus is on children's creative engagement in drama rather than on actual performance or "the theater."
 Figure 11.4[5]	**Dance:** The dance domain for preschoolers is interested in the creative and often expressive use of movement. Movement is explored in all its range (e.g., small and large, fast or slow, hopping or marching) and for various purposes, such as learning math or language skills, or for the joy of moving. Dance can be a nonverbal tool for expressing ideas, telling stories, or communicating emotions. It is often rhythmic and accompanied by music. Requiring thinking, social interaction, and physical exercise, dance is a motivating way for preschoolers to engage in learning.

The specific foundations, which are the knowledge, skills, and behaviors that preschool children typically develop in a quality preschool environment as they relate to visual art, music, drama, and dance are included later in the chapter as each strand is explored.[6]

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11.2: Supporting Children's Learning

Much of children's development in the creative arts during the preschool years proceeds naturally and needs only fertile soil, along with time, to grow. Children initiate many behaviors and routines when they simply go about their play. They practice many skills along the way, and supportive physical and social–emotional development occurs as children progress from ages three to five. At the same time, their drawings become more mature and expressive, their pretend characters and settings become more complex and social, their musical expression skills grow with their muscular coordination and abilities to discern beat, tone, and melody, and the movements they coordinate with music or simply orchestrate in silence gain in surety and expressive complexity.

A primary responsibility of the preschool teacher is to let such natural developments occur. Child-initiated artistic activity is valuable not only because it is so enmeshed with a host of developments for children, but also because children cherish ownership of much of what they do. Children follow their hearts and minds to what interests them and to areas where they experience increasing mastery. They draw as they will and may not be interested in exactly what thing, animal, or person the creation represents. They may hold firm to their idea of how to draw a tree, behave like a bear, or sing like a bird; it often becomes important for teachers and other adults to avoid critiquing such expressions (except where the child may solicit advice). Teachers would do well to let the child experiment with, and perhaps revise, her expressions as the need occurs or as maturing views of the world and its possible representations take hold.



Figure 11.5 Participating and having fun with the arts should be the focus[1]

Along with child-initiated art, a complementary perspective needs reinforcement. This perspective recognizes the ways that teachers can and should support young learners in their development. An element of this scaffolding is creating conditions in the preschool program in which interesting and important connections between the arts and other developments can take place. Capitalizing on language and communication opportunities is another example; placing children in settings where cooperation is important and where cooperative dispositions and skills may grow is yet another. Some art activities can help children become aware of and reflect on differences among people, become exposed to diverse art forms from different cultures, and create a common platform of learning for children between home and school. These considerations will set the stage for children's growth and interest in the arts.[2]

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11.3: Guiding Principles

The following guiding principles relate the importance of teachings knowing their children and providing instructional activities that tap into the children's prior knowledge and experiences. Exploration in the arts is important and creative expression is more authentic when not dictated by adult expectations. Adults need to scaffold this process of exploration providing structure to activities, mediating potential problems, and inspiring and encouraging children's progress. In this manner, adults can make the arts rewarding to all children, including those with special needs.



Figure 11.6: To bring the arts to children with disabilities, you may need to make accommodations, such as this tray on a wheelchair.[1]

Beyond helping to build artistic skills, reflection and modification are important to the creative process. These opportunities in the arts also build skills such as problem solving and critical thinking; the arts bring parallel opportunities for the development of language/communication, mathematics, and the development of social and interpersonal skills. In the same vein, the arts have applications to learning in many disciplines and to aspects of social–emotional development. Observant teachers can capitalize on the arts to foster development of the self, identity, and emotional outlet.



Figure 11.7: Using tools with playdough is an opportunity to problem solve and explore cause-and effect. [2]

The arts can be pursued even with meager budgets and free materials. Children benefit from high-quality learning experiences and high-quality materials— both as vehicles to encourage exploration and as symbols that demonstrate adult caring for children's welfare.

- The arts are inclusive of and can be enjoyed by all children.
- The arts are a language that is common to all and embrace understanding between children of different linguistic, cultural, and socioeconomic backgrounds, and between children of differing abilities.
- The arts promote dispositions for learning and regular experiences in the arts during the preschool years, cultivates life-long engagement in arts-related activities.
- Children make their own meaning. Original, imaginative expression is a natural occurrence when children engage in the arts that is scaffolded by adults in an appropriate environment.
- Children are capable of creating original art in all its forms.
- Children learn about human connections, beauty, and appreciation of the arts.
- The child's work is play and experiences in the arts should be offered in play-oriented approaches.
- Children are active learners who thrive when challenged appropriately. An effective curriculum includes a broad range of methods, experiences, and definitions of success for all children, teachers, and preschool settings.

- Arts experiences for preschoolers are more about process than product. Being engaged is what is important, not the end result or product.
- The arts reinforce the integrated nature of learning. Because children learn holistically, the arts should be presented in a way that is integrated with other domains of learning.
- Cultural competence is approached through art. The arts can help children reflect on their own cultures and origins as well as those of others.
- The arts are motivating and engaging for learners. The arts are a means to explore, take risks, communicate, and define personal perspectives and preferences regardless of culture, developmental status, or ability.
- Since children have a propensity for imitation, more than anything else, a teacher who is excited about the arts can potentially inspire children of any culture, language, or ability to become excited about art making.
- The arts provide a unique means for families to interact. They have songs, stories, games, and many other talents to share.[3]

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11.4: Environments and Materials

Most materials necessary to support preschoolers' learning in the creative arts are inexpensive and easy to obtain and can often be shared across art domains. In fact, by rotating props, books, masks, and the like, teachers reinvent them in novel ways.

There are some basic needs in each art discipline to create exciting and enriching learning experiences. Further materials will be summarized as each discipline is discussed later in the chapter.

- Dance and movement require only space in a room and benefit further from music and costumes of modest scope and cost.
- Many things handy in a preschool environment can serve as props for dramatic play (spontaneous engagement in pretend play) and drama (guided experiences with instruction on acting out a drama), where imagination can turn almost anything into something else.
- Visual arts largely involve drawing, painting, and creating two- and three-dimensional works of art. These activities commonly make use of natural materials in addition to typical art supplies, such as, crayons, pencils, finger paints, watercolor paints, moldable dough, construction paper, and sufficient drawing or painting paper to provide the inspiration for children's creations. Children need flat places to draw and paint—tabletops, the floor, or outdoor surfaces, such as fences.
- It is important that music not be limited to prerecorded songs. Music is an active process. Music may be a little more demanding of specialized materials. A variety of rhythm instruments, such as wooden blocks, bongo drums, or hollow, hardwood boxes, can be used by children; little instruction is necessary. When these materials are not available, clapping hands and stomping feet can keep rhythm. Other musical instruments that may extend this collection include recorder-like wind instruments, shakers, stringed plucking devices, and so on.
- Adaptive materials may be necessary to ensure that activities are accessible for all children with disabilities or other special needs to participate in art activities with a feeling of enjoyment and accomplishment.
- Materials that may serve as props for pretend play, or costumes that reflect the cultural backgrounds of the children in the preschool program, are good to have on hand.
- Any and all art materials can be used to foster the creative process. Having a wide range of loose parts available gives children many opportunities to explore their creative tendencies.



Figure 11.8: Children enjoy playing basic musical instruments.[1]

Physical environments that support learning in the creative arts begin with sufficient, appropriate space. The few basic materials described above, and space for the use of materials and movement of the children, are all that is required of the environment. For example, costumes, prop-like objects, and art supplies, along with a designated workspace accessible to children, can help encourage learning while creating an aesthetically pleasing physical environment.

Scheduled time for arts activities, with an organized flow of necessary preparation and cleaning up (or possibly winding down of excited children), will also help facilitate learning. Teachers quickly learn—often through trial and error—the importance of allowing sufficient time for an art experience. The arts can also be woven into other areas of the curriculum throughout the day.

An effective environment for teaching and learning in the creative arts for the preschool child considers:

- The suitability, accessibility, safety, amount, and variety of materials.
- The aesthetics (beauty) of the early childhood environment.
- Sufficient open space for movement, dance, and theater play.
- Support for children's drawing skills.
- Indoor and outdoor environments for creating art.

- Art that is displayed at the eye level of the children. This includes their own, examples of visual arts, and photographs of those engaged in the arts.
- A well-constructed environment for social and collaborative learning.[2]

Research Highlight: Is It Art?

What is the difference between “art” and a mere scribble? Preschool parents may be as interested in this question as the puzzled adult viewing modern, abstract art at the local gallery. One sense of art stressed in this curriculum framework is that the creative arts aim at the joys of free expression and the pleasures of seeing and creating images. Art instruction at the preschool level is also concerned with basic, first steps that can lead to more advanced artistic skills.

Differing views prevail concerning the child artist. One approach seeks artistic significance in a child’s work—perhaps a genius or a prodigy is emerging. A contrasting view dismisses the child artist by labeling his artwork “haphazard” and its occasional glimpses of clever expression and beauty as “accidental.”

Over the years, the work of Nelson Goodman and Howard Gardner at Harvard University’s Project Zero has helped to demystify children’s art. Those scholars view art through the lens of cognition rather than through a value-driven critique of aesthetics. Art is a cognitive activity, requiring thinking, problem solving, communication, and intent. And learning in art is frequently tied to learning in language as well as culture.

For Goodman, the classical question What is art? is transposed into a less-familiar question: When is art? As Goodman suggests, art “occurs” when its symbols are functioning aesthetically. The aesthetic functions of symbols include expressiveness (conveying meaning or feeling), susceptibility to multiple readings, and repleteness (full or abundant rendering). These ideas de-emphasize judgments of beauty or merit; Goodman’s artistic creator is the individual with sufficient understanding of the properties and functions of certain symbol systems to allow her to create works that function in an aesthetically effective manner.

And what of preschool-age children? Rhoda Kellogg’s documentation and classification of hundreds of thousands of children’s drawings from 30 countries testify to children’s ability to use symbols at an early age, often depicting qualities of the artist as defined by Goodman. Children’s art is frequently expressive, conveying emotion, feeling, action, and story. Children’s art may be more or less replete—with abundant renderings of objects or symbols at times, with vague, sketchy treatments at other times. Young children are not very likely to plan and create works with multiple readings—this ability belongs to more mature developmental stages and can emerge in adolescence.

Appearing commonly in drawings of children, especially those of two- or three-year-olds, is the mandala, a term used to designate symbolic representations that include a circular motif typically incorporating a crosslike figure.5 For the child, the mandala is a well-balanced, pleasing form that lies en route to genuine representation. The contrasting, superimposed elements of the circle and cross are precursors to the figure’s metamorphoses to rounded figures with legs, arms, and facial details.

According to Gardner, the conditions suggested by Goodman, though helpful in thinking through the puzzles of children’s art, nevertheless leave the debate about art created by children in a state of relative limbo. The preschool teacher’s role is to introduce children to a range of constructive symbolic media and provide them with the faith that the child’s own vision and ability to give form to vision are worthy. The preschool teacher can view children’s art without an eye or plea for realism; rather, the gaze might borrow from Paul Klee, who, when discovering his childhood drawings, described them in a 1902 letter to his fiancée as the most significant ones he had yet made.[3]

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Let’s take a closer look at each of the strands/disciplines of the Creative Arts.

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11.5: Supporting the Visual Arts

Preschool children often have a natural fascination with the process of creating visual art. Making marks, squishing clay, and using a brush to apply color are activities that attract most young children. In groups where children speak multiple languages and may not share common words, visual art can create connections and a way of communicating. Art can become a way for people to connect across cultures to their common humanity; an appreciation for it may begin in preschool. Inviting families into the environment to share works of art from the home is an opportunity to build a bridge to the home.

Young children are naturally creative. The visual art framework is designed to encourage creativity; open-ended projects emphasize the process of working with visual materials. In other words, the curriculum is not focused on encouraging a child to produce, for example, a specific painting, but rather to practice using a brush on paper without a set outcome.



Figure 11.9: This child painting at the easel.[1]

Children are both consumers and creators of visual arts, which is reflected in the foundations:

Visual Art

1.0 Notice, Respond, and Engage

At around 48 months of age	At around 60 months of age
1.1 Notice and communicate about objects or forms that appear in art.	1.1 Communicate about elements appearing in art (such as line, texture, or perspective), and describe how objects are positioned in the artwork.
1.2 Create marks with crayons, paints, and chalk and then identify them; mold and build with dough and clay and then identify them.	1.2 Begin to plan art and show increasing care and persistence in completing it.
1.3 Enjoy and engage with displays of visual art, inside or outside the classroom. Begin to express preferences for some art activities or materials.	1.3 Enjoy and engage with displays of visual art. May expand critical assessment of visual art to include preferences for types of artwork or art activities.
1.4 Choose own art for display in the classroom or for inclusion in a portfolio or book and briefly explain choice.	1.4 Choose own art for display in the classroom or for inclusion in a portfolio or book and explain her or his ideas in some detail.

2.0 Develop Skills in Visual Art

At around 48 months of age	At around 60 months of age
2.1 Make straight and curved marks and lines; begin to draw rough circle shapes.	2.1 Draw single circle and add lines to create representations of people and things.
2.2 Begin to create paintings or drawings that suggest people, animals, and objects.	2.2 Begin to create representative paintings or drawings that approximate or depict people, animals, and objects.

Developmental Sequence of Drawing

When provided with tools and a supportive environment, children from ages three to five progress more rapidly in the visual arts than during any other two-year period prior to adulthood. Creativity and imagination are at their apex at age four-and-a-half years; most experienced preschool teachers will attest to this. The arts are a natural outlet for the creative thinking of a preschooler, and learning is rapid.

The progression of children's drawing ability is the most documented in the visual arts. When children are given a means and a place to make marks, they begin with series of vertical lines and move on to mandalas (i.e., repeated circles). The mandalas soon sprout legs and arms, then faces, and more detailed features such as hair, fingers, or eyes. Harvard University Professor Howard Gardner refers to this process as "the birth of the potato person." This research has become so well-known that medical doctors will now check on children's intellectual progress by asking the child and parent how detailed the child's human-figure drawings are (rather than asking about letters and numbers) at the four-year and five-year checkups. Because children speak multiple languages and progress differently around writing skills, the question about drawing is more relevant and telling for this age group.

Copy and paste image here Figure 11.10: Early, nonrepresentational mark-making	Copy and paste image here Figure 11.12: A mandala becomes an early representational drawing of a sun.	Copy and paste image here Figure 11.13: The emergence of the "potato person": a first effort at representing a person	Copy and paste image here Figure 11.14: A more advanced drawing: person wearing "sparkly shoes"

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 Figure 11.10: Early, nonrepresentational mark-making	 Figure 11.12: A mandala becomes an early representational drawing of a sun.	 Figure 11.13: The emergence of the "potato person": a first effort at representing a person	 Figure 11.14: A more advanced drawing: person wearing "sparkly shoes"

The painting progress of children is not as well-documented as their drawing progress. In general, children begin by simply experimenting with brushstrokes and the process of applying paint to a surface. Children's first paintings are usually solid sections of a single color, two colors, or three colors at the most. The brushstrokes begin to change directions, and shapes emerge. Finally, children begin to attempt representational paintings. The subject matter of such paintings varies depending on the child, the teacher, and the environment.[2]

Teachers can support children's development of the visual arts foundations with the following:

- Encourage engagement with art at all levels.
- Support exploration and discovery.
- Give children the time and space needed to explore creativity.
- Provide a comfortable environment in which children can practice art.
- Provide opportunities for children to reflect on their own work.

- Respect individual developmental, cultural, and linguistic differences, and encourage children to respect them.
- Provide children simply with a means and place to make marks (e.g., a crayon and paper), and they will begin with the same basic images.
- Encourage communication around shape and form to aid children's drawing skills.
- Help children acquire painting skills through practice with the tools.
- Stimulate children's interest in color and application of paint through other forms of painting.
- Create opportunities for children to work with dough, clay, or wet sand.
- Provide only the malleable material, without tools, during children's initial explorations of sculpting so that children have a chance to explore through touch.
- Communicate to a group of linguistically and culturally diverse children through sculpture techniques by using nonverbal methods.
- Introduce tools after observing that children have had many "hands-on" opportunities to explore clay and dough sculpture.[3]



Figure 11.15: Working with clay is a different experience than working with playdough.[4]

Table 11.2: Suggested Materials for Visual Art[5]

Type of Materials	Examples of Materials
Found or Recycled Materials	Old magazines for cutting and assemblage, toilet paper and paper towel rolls
Basic	Tempera paints, construction paper, chunky crayons, tray watercolors
Enhanced	Tube watercolors and palette; watercolor paper
Natural Environment	Sticks, rocks, and pinecones for sculpture; clay and natural materials for pressing
Adaptive Materials	Thicker handles on some materials; easel that can be adjusted to an appropriate height

Vignettes

Ms. Cheng is showing children how colors can be mixed to create other colors. While pouring some yellow paint on the plate, she says "What is this color?" "Yellow!" shout the children. Knowing that some children speak other home languages, Ms. Lin asks "Milagros, how do you say yellow in Spanish?" "Amarillo," Milagros answers. "Samantha, how do you say yellow in Mandarin?" "Huang!" Samantha answers. Ms. Cheng pours out some blue paint and asks the same set of questions. As she moves on to mix the two colors, they turn into green. This time, without prompting, some children shout, "Green!" others say, "¡Verde!" and others say, "Lu!"

It is springtime. The children have returned from a walk outdoors with handfuls of yellow flowers. The teacher places the flowers in a cup in the middle of the painting area and asks the children the color of the flowers. Then he asks, "What shapes do you see in the flower?" The children say, "Circles!" "Lines!" "Squares!" The teacher says, "Really? Where?" The children point at different parts of the flower. The teacher brings out brushes and paint and asks the children if they would like to paint the flowers.

Many of the children sit down and begin to work with the materials, producing all kinds of images. When a child has too much paint on the brush, the teacher assists in showing the child how to wipe paint from the brush on the side of the paint container. As the children finish, the teacher encourages the children to talk about their paintings and then places them in the drying area.

> Some children finish quickly, and others become absorbed and work for a very long time. Some want to try several times on new paper. A few children attempt to represent the flowers in their paintings, and others experiment with the movement of the brushes and the mixing of color on the paper.[6]

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11.6: Supporting Music

When children develop an awareness and knowledge of musical elements, children progress in their understanding and ability to control the elements for personal musical expression. Although early childhood music education is primarily about introducing the child to musical sounds and holistic experiences that are of the highest quality, enriched learning occurs when the child has an understanding of and ability to manipulate the music elements of rhythm, melody, form, loudness/softness, tempo, timbre, articulation, and style.

The foundations for Music include responding to music, develop musical skills, and being able to make music.

Music

1.0 Notice, Respond, and Engage

At around 48 months of age	At around 60 months of age
1.1 Sustain attention and begin to reflect verbally about music; demonstrate familiarity with words that describe music.	1.1 Verbally reflect on music and describe music by using an expanded vocabulary.
1.2 Recognize simple repeating melody and rhythm patterns.	1.2 Demonstrate more complex repeating melody and rhythm patterns.
1.3 Identify the sources of a limited variety of musical sounds.	1.3 Identify the sources of a wider variety of music and music-like sounds.
1.4 Use body movement freely to respond loosely to beat—loud versus quiet (dynamics)—and tempo.	1.4 Use body movement freely and more accurately to respond to beat, dynamics, and tempo of music.

2.0 Develop Skills in Music

At around 48 months of age	At around 60 months of age
2.1 Begin to discriminate between different voices and certain instrumental and environmental sounds. Follow words in a song.	2.1 Become more able to discriminate between different voices and various instrumental and environmental sounds. Follow words in a song.
2.2 Explore vocally; sing repetitive patterns and parts of songs alone and with others.	2.2 Extend vocal exploration; sing repetitive patterns and entire songs alone with others in wider ranges of pitch.

3.0 Create, Invent, and Express Through Music

At around 48 months of age	At around 60 months of age
3.1 Explore vocal and instrumental skills and use instruments to produce simple rhythms and tones.	3.1 Continue to apply vocal and instrumental skills and use instruments to produce more complex rhythms, tones, melodies, and songs.
3.2 Move or use body to demonstrate beat and tempo, often spontaneously.	3.2 Move or use body to demonstrate beat, tempo, and style of music, often intentionally.
3.3 Improvise vocally and instrumentally.	3.3 Explore, improvise, and create brief melodies with voice or instrument.

Teachers can support children's development of the music foundations with the following:

- Find ways to expose children to music being conducted and performed.
- Provide music areas where children can experience instruments or musical activities as individuals or in a small group.
- Set up a "Science of Sound" area where children can explore and experiment with building sounds.
- Provide a conductor's listening and play area.
- Make instruments with the children.
- Incorporate chant games and songs related to sound production.
- Include a variety of songs that related to a particular topic area
- Use songs that have movements or gestures that accompany the words.
- Provide children with an opportunity to conduct the group by singing or playing instruments.

- Dramatize poetry and nursery rhymes as a fun way to explore and develop vocal inflection and pitch capabilities in the young singer.
- Invite young children to move through instrumental program music, or music that “tells a story.”



Figure 11.16: Music with actions are popular in early childhood.[1]

- Encourage children to invent accompaniments with musical instruments.
- Invite local professional musicians or family members to demonstrate and talk about their instruments and the sounds made.
- Invite live musicians for the children to conduct; encourage the child conductor to stop and start, go faster and slower, and give arm gestures for louder and softer sounds.
- Incorporate books related to music. Include storybooks on conductors and orchestras.
- Encourage children to create simple rhythm patterns.
- Extend learning about different ways to lead a music group.
- Incorporate freeze-and-move games as a fun, simple way to help children develop control of the body in space and to learn and practice fundamental locomotor movements.
- Provide opportunities for independent and group play through musical play kits, which can be stored in a music area.
- Incorporate the use of Web sites of children’s music and other age-appropriate software (if available), to engage children’s interest in sound
- Encourage children to be playful and spontaneous when singing—they often sing made-up songs as they play alone or with other children.
- Minimize use of recorded music when the goal is singing.
- Have the children draw pictures of songs.[2]



Figure 11.17: This teacher is introducing the children to a guitar.[3]

Table 11.3: Suggested Materials for Music[4]

Types of Materials	Examples of Materials
Found or Recycled Materials	Pots, pans, metal or plastic cans, spoons, chopstick-beaters with cork stoppers for rhythm Glass jars filled with different levels of water for a water xylophone Pieces of 12” dowel for rhythm sticks; shakers made of plastic eggs filled with different materials
Basic	Rhythm sets with shakers and simple drums Singable books; glove puppets for nursery rhyme songs; song maps made of paper or fabric; selection of CDs, CD player, and headset for personal listening

Types of Materials	Examples of Materials
Enhanced	Single-note resonator bells; child-sized xylophones; multiple-sized hand drums; ethnic instruments; child-sized guitar or ukulele; small electronic keyboard; recorder/flute; music software; music videos; songbooks
Natural Environment	Rhythm blocks made of small tree limbs; homemade wooden or stone xylophones suspended on a garden hose; wind chimes made of natural objects
Adaptive Materials	Thicker handles on some materials; instruments in a fixed position (such as a drum on a stand) For children with reduced hearing ability, instruments that resonate and vibrate allow for touching or holding.

Research Highlight

The following points about music and development in early childhood come from Start the Music Strategies, a collaboration by MENC (the National Association for Music Education), the National Association for the Education of Young Children, and the U.S. Department of Education. The points were developed by reviewing the research and professional literature.

- We know that music is among the first and most important modes of communication experienced by infants.
- As young children grow and develop, music continues as a basic medium not only of communication, but also of cultural expression and self-expression.
- As preschool children not only listen to music, but also learn to make music by singing and playing instruments together (and responding to music in a variety of ways), they create important contexts for the early learning of vital life skills such as cooperation, collaboration, and group effort. Music in an educational setting also begins to teach young children to make judgments about what constitutes “good” music, helping them develop the rudiments of an aesthetic sense.
- Music contributes to “school readiness,” a foundational education aim of the American people for all our children.
- When children develop musical skill and knowledge they are developing basic cognitive, social, and motor skills necessary for success throughout the educational process, and in life itself.[5]

Source:

Start the Music Strategies. Reston, VA: National Association for Music Education, n.d.

Vignette

It is raining outside. Miriam and Pablo, both age three, begin clicking and tapping their fingers on the window glass to imitate the rain hitting the window. Pretty soon, all the children are making different kinds of rain sounds on the window. After a few minutes the rain comes to a stop, and the children are invited to circle time.[6]

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11.7: Supporting Drama

Drama is a valuable part of the preschool curriculum. Typically, children ages three to five first experience drama by participating in dramatic play at home and in the early childhood environment. Dramatic play is the foundation for the development of drama. This play typically progresses from the time a child is 36 months old, when he or she engages almost exclusively in solitary play and in watching others play; to the equal time engaged in solitary, parallel, and group play at 48 months; and to primarily group play with some solitary and parallel play at 60 months.

Because of circumstances beyond their control, some children may arrive at school with limited exposure to these areas. Regardless of prior exposure, however, all children bring experiences that can enrich drama, and all children are capable of enjoying and participating in drama. Preschool-age children enjoy participating in various types of dramatic play and drama, from pretending to cook a meal in the dramatic play area to acting out part or all of a favorite story with their teacher and peers.



Figure 11.18: What might these children have been acting out?[1]

During preschool, drama should be about the process of creating and exploring, rather than the end product, such as a rehearsed play or other formal performance.

Drama

1.0 Notice, Respond, and Engage

At around 48 months of age	At around 60 months of age
1.1 Demonstrate an understanding of simple drama vocabulary.	1.1 Demonstrate a broader understanding of drama vocabulary.
1.2 Identify preferences and interests related to participating in drama.	1.2 Explain preferences and interests related to participating in drama.
1.3 Demonstrate knowledge of simple plot of a participatory drama.	1.3 Demonstrate knowledge of extended plot and conflict of a participatory drama.

2.0 Develop Skills to Create, Invent, and Express Through Drama

At around 48 months of age	At around 60 months of age
2.1 Demonstrate basic role-play skills with imagination and creativity.	2.1 Demonstrate extended role-play skills with increased imagination and creativity.
2.2 Add props and costumes to enhance dramatization of familiar stories and fantasy play with peers.	2.2 Create and use an increasing variety of props, costumes and scenery to enhance dramatization of familiar stories and fantasy play with peers.

Teachers can support children's development of the drama foundations with the following:

- Observe dramatic play and role playing.
- Step in or model when needed.
- Provide adaptations to support the participation of children with disabilities or other special needs. This may include preteaching, using pictures, sign language, and other multisensory enrichment, modified equipment/props, etc.
- Use a drama-based vocabulary. For example, blocking, actors, stage, scenery, voice, props, etc.
- Encourage children to use drama based vocabulary
- Encourage and model the expression of interests and preferences.

- Encourage and allow initiative.
- Model and note appropriate ways of using drama materials.
- Move in and out role as appropriate (decide when to participate and when to facilitate).
- Use costumes, props, and scenery to inspire dramatic play and drama.
- Facilitate children's engagement in drama by first discussing expectations.
- Scaffold and encourage children during and after participating in drama to build their understanding and use of plot.[2]



Figure 11.19: Props for drama can be handmade (by adults and/or children).[3]

Table 11.4: Suggested Materials for Drama[4]

Types of Materials	Examples of Materials
Found or Recycled Materials	Scarves, sashes, and fabric remnants varying in size, color, design, and texture for a costume area; include strips of furry fabric to be used as animal tails. Wooden spoons, paint sticks, paper towel and wrapping paper tubes, yarn, and boxes can work as nonrepresentational props where children create meaning.
Basic	Large and small blocks; stuffed animals; dolls; wooden or plastic fruits and vegetables
Enhanced	Puppets; textual props such as menus and signs; large pieces of blue, green, yellow, brown, and floral fabric to depict rivers, grass, dirt (for "planting" vegetables), and flower gardens; headbands with various types of animal ears sewn on
Natural Environment	Wood, tree cookies, and other materials for building; pinecones, feathers, smooth stones, and pebbles
Adaptive Materials	Consider props that are easy to use and handle (e.g., oversized objects and items without many complicated pieces). Adapt clothing and fabric by removing buttons, enlarging openings, and so on for ease of wearing.

Research Highlight

It is important that children be given the opportunity to make decisions and determine the course of action during dramatic play and drama. It helps cultivate social–emotional skills such as taking initiative in one's learning. However, teachers should look for opportunities to participate often in children's play. The teacher's participation adds an important dimension to children's play. Research suggests that young children derive greater benefits from dramatic play when the teacher or other adult is involved—that is, monitoring and assisting children in engaging and fruitful play, rather than just observing passively.

Ann Podlozny looked at numerous studies that examined the role of children's participation in drama in their ability to understand stories. In the 17 studies that she examined, children listened to a story and either acted it out or listened to the story a second time. Podlozny found that children not only displayed greater story understanding and recall when acting out the story rather than just hearing it, but that story understanding was greatest when the teacher or other adult was in-role, working with the children during the drama.

In another study, Robert Fink looked at how teacher involvement in role play affects children's abilities to understand that people and objects retain original qualities when others are added (conservation), that the physical world stays the same even if one's view changes, and that people take on multiple roles within a group (perspectivism). In Fink's study, children were assigned to one of three groups. The first participated in dramatic play with teacher support, the second participated in dramatic play without teacher support, and the third group did not participate in dramatic play. After four weeks it was found that the group that participated in dramatic play with teacher support not only outperformed both other groups on measures of conservation and perspectivism, but they also showed higher levels of imagination when observed during dramatic play.

There are numerous social and educational benefits for children when they engage in dramatic play and drama, and evidence suggests that teacher involvement may enhance these benefits. Although it is important and valuable to allow children autonomy (independence) and the ability to make decisions and choices while engaging in play, frequent observation and guidance are important. See “Interactions and Strategies,”“Teachable Moments,” and the vignettes in this section for suggestions and descriptions of how adults can enhance children’s engagement in dramatic play and drama.[5]

Sources:

54. A. Podlozny, “Strengthening Verbal Skills Through the Use of Classroom Drama: A Clear Link,” Journal of Aesthetic Education 34, nos. 3-4 (2000): 239–76. 55.

R. S. Fink, “Role of Imaginative Play in Cognitive Development,” Psychological Reports 39 (1976): 895–906. As summarized in Critical Links: Learning in the Arts and Student Academic and Social Development. Edited by R. Deasy. Washington, DC: Arts Education Partnership, 2002.

Vignettes

A day after reading and discussing “The Three Billy Goats Gruff” during story time, Mr. Longfeather watches as a group of four-year-old children in his class pretend to be goats. The three children portraying the goats are trying to get into the “castle” as Juan, who is acting as a troll, stands guard. Mr. Longfeather is pleased to see that the children are using several objects he placed at the dramatic play area as props and scenery. Juan is clearly having a great time, and laughs as he uses a deep voice and makes funny “troll” faces.

After dramatic play time is over and the class has gathered on the rug, Mr. Longfeather listens as the children excitedly recount and describe what they did during dramatic play. “Juan was a funny troll,” says Kim. Juan adds, “And I used a walking stick.” The teacher responds, “That’s right, Juan. When you were the troll, you were using the paint stick as a ‘prop.’ A ‘prop’ is a thing actors use while pretending. I heard your deep troll voice and saw your scrunched troll face. I noticed that you were laughing as you made the faces. Did you enjoy making the faces?” The children ask if they can keep their “castle,” made from large blocks and fabric, in the dramatic play area. Mr. Longfeather agrees.

Several children begin arranging the dramatic play area of their preschool program to be a preschool itself. They excitedly call out their plans to play the teacher, the assistant teacher, the parents, and even themselves. As their teacher, Ms. Jackson, observes the activity, she notes that three children are evident leaders of this enterprise: Peter, Emma, and Jamila, all about four years old. The other children take an interest in this development and look in on the preparations without participating much—they occasionally toss in ideas or suggest the odd prop. Emma interrupts the proceedings by pronouncing, “Come sit down on the rug, class. I’m the teacher, and you are my children!” Peter and Jamila say nearly in unison, “No, I’m the teacher!” Some of the remaining children express a preference for who should be the teacher, including themselves.

As the project begins to fall to some grumbling and squabbling, Ms. Jackson steps in and says, “This looks really great—you’re building the whole classroom in just one corner of the room. I’ll bet you’d all like a chance to be the teacher. So let’s figure out how that can work.” Jamila says, “How do we tell who is the teacher?” Seizing a large plastic capital T from the alphabet box, Emma says, “With this!” The teacher nods her head and says, “That will be helpful because the word “teacher” starts with the “t” sound. Peter adds, “The person with this yellow T will be teacher for a minute and show the class something a teacher does. And we’ll take turns.” As the children finish organizing the dramatic play area, Ms. Jackson sits down next to Lulu and Alejandro, who are just beginning to learn English, to help them understand the plan and participate.[6]

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11.8: Supporting Dance

Dance and movement are an inherent part of life and are as natural as breathing. Dance is an elemental human experience and a means of expression. It begins before words are formed, and it is innate in children before they use language to communicate. It is a means of self-expression and can take on endless forms. Movement is a natural human response when thoughts or emotions are too overwhelming or cannot be expressed in words.



Figure 11.20: Dancing with wings[1]

Dance

1.0 Notice, Respond, and Engage

At around 48 months of age	At around 60 months of age
1.1 Engage in dance movements.	1.1 Further engage and participate in dance movements.
1.2 Begin to understand and use vocabulary related to dance.	1.2 Connect dance terminology with demonstrated steps.
1.3 Respond to instruction of one skill at a time during movement, such as a jump or fall.	1.3 Use understanding of different steps and movements to create or form a dance.
1.4 Explore and use different steps and movements to create or form a dance.	1.4 Use understanding of different steps and movements to create or form a dance.

2.0 Develop Skills in Dance

At around 48 months of age	At around 60 months of age
2.1 Begin to be aware of own body in space.	2.1 Continue to develop awareness of body in space.
2.2 Begin to be aware of other people in dance or when moving in space.	2.2 Show advanced awareness and coordination of movement with other people in dance or when moving in space.
2.3 Begin to respond to tempo and timing through movement.	2.3 Demonstrating some advanced skills in responding to tempo and timing through movement.

3.0 Create, Invent, and Express Through Dance

At around 48 months of age	At around 60 months of age
3.1 Begin to act out and dramatize through music and movement patterns.	3.1 Extend understanding and skills for acting out and dramatizing through music and movement patterns.
3.2 Invent dance movements.	3.2 Invent and recreate dance movements.
3.3 Improvise simple dances that have a beginning and an end.	3.3 Improvise more complex dances that have a beginning, middle, and an end.

At around 48 months of age	At around 60 months of age
3.4 Communicate feelings spontaneously through dance and begin to express simple feelings intentionally through dance when prompted by adults.	3.4 Communicate and express feelings intentionally through dance.

There are many ways to describe each dance element. Teachers and children can add their ideas to this chart.

Table 11.5: Elements of Dance

Body	Space	Time	Energy
Body parts: Head, torso, shoulders, hips, legs, feet **Body Actions:** *Nonlocomotor* Stretch, bend, twist, circle, rise, fall Swing, sway, shake, suspend, collapse *(qualities of movement)* *Locomotor* Walk, run, leap, hop, jump, gallop, skip, slide	**Size:** Big, little **Level:** High, medium, low **Place:** On the spot (**personal space**), through the space (**general space**) **Direction:** forward, backward, sideways, turning **Focus:** Direction of gaze of facing **Pathway:** Curved, straight **Relationships:** In front of, behind, over, under, beside	**Beat:** Underlying pulse **Tempo:** Fast, slow **Accent:** Force **Duration:** Long, short **Pattern:** A combination of these elements of time produces a rhythmic pattern	**Attack:** Sharp, smooth *(qualities of movement)* **Weight:** Heavy, light **Strength:** Tight, loose **Flow:** Free-flowing, bound, balanced, neutral

Teachers can support children's development of the dance foundations with the following:

- Help children to become enthusiastic participants in learning dance.
- Warm up! Even though preschool bodies are much more resilient than adult bodies, they should still be gradually prepared for any vigorous activities.
- Use play with games that require dance movements and cooperation.
- Be aware of cultural norms that may influence children's participation.
- Create environments and routines conducive to movement experiences.
- Consider the space, music, costumes, and props you provide.
- Establish spatial boundaries to ensure children have personal space when engaging in movement and dancing.
- Use children's prior knowledge.
- Structure learning activities so children are active participants.
- Introduce the learning of a dance skill by using imagery.
- Draw on children's interests in dance making.
- Plan movement activities appropriate for various developmental stages and skill levels.
- Incorporate dances that can be performed without moving the entire body.
- Encourage variety in children's movement.
- Teach rhythm using traditional movement games.
- Use the "echo" as a helpful rhythm exercise.
- Use dance to communicate feelings.
- Use movement to introduce and reinforce concepts from other domains.
- Provide opportunities for unplanned, spontaneous dancing[2]



Figure 11.21: These children are dancing at group time.[3]

Table 11.6: Suggested Materials for Dance[4]

Type of Materials	Examples of Materials
Found or Recycled Materials	Boxes, wheels, chairs, hula hoops, balloons, umbrellas, scarves, and other found objects can be used for choreographic variety. Costumes can be assembled from fabrics or donated by families or the community.
Basic	Open rug space; outdoor environment with defined dance space
Enhanced	Piano, drums, maracas, tambourines, claves, triangles, cymbals, woodblocks, or music system A local dance troupe may donate children's costumes that are no longer used in productions.
Natural Environment	Palm leaves, feathers, sand, water, and sticks can be used in movement activities.
Adaptive Materials	If a child has a prosthesis, he or she can decide whether to dance with it on or off. If a child uses a wheelchair, props can be useful to extend what the body can do; a few possibilities are balloons tied to a stick, crepe paper streamers, and scarves.

Research Highlight

Research supports the inclusion of dance in a preschool curriculum for a number of reasons, not the least of these being the social–emotional benefits gained from dancing at an early age.

In The Feeling of What Happens, neuroscientist Antonio Damasio describes the body as the theater for emotions and considers emotional responses to be responsible for profound changes in the body's (and the brain's) landscape. Damasio creates three distinct classifications for emotions based on the source of the emotion and the physical response to the emotion: primary, secondary, and background emotions. The primary emotions are the familiar emotions recognizable in preschoolers and adults alike: happiness, sadness, fear, anger, and surprise. Damasio describes secondary emotions as social emotions, such as jealousy or envy when a child is eyeing a friend's toy or feelings of pride when accomplishing a difficult task. And of particular interest in a discussion of dance are the background emotions—much like moods. These refer to indications that a person feels down, tense, cheerful, discouraged, or calm, and others.

Background emotions do not use the differentiated repertoire of explicit facial expressions that easily define primary and social emotions; they are also richly expressed in musculoskeletal changes, for instance, in subtle body posture and overall shaping of body movement. Movement and dance are natural vehicles for expression of these emotions.[5]

Source:

A. Damasio, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* (New York: Harcourt Brace, 1999), 51–53.

Vignettes

Sammy, a four-year-old in Ms. Huang's class, pulls a top hat off the hat rack and begins to perform controlled balances high on the balls of his feet. Two other children become interested in this performance, and suddenly three children are using hats as creative props to stretch high into the air, with their arms, as they rise up on their toes forming a chorus line; Sammy continues to play the lead, placing a hat on a foot and balancing on one leg like a bird; the other children imitate. The movement progresses to a balancing game, and the children occasionally tumble to the floor, giggling.

Ms. Huang observes the movement game for several minutes and notices the children have taken to making the same shape of the lifted bird leg. She recognizes the children's imagination by commenting on their creative play with the hat; she then suggests to Sammy that he attempt to bring his leg behind him (in a pose resembling a ballet arabesque) while keeping the hat balanced on his foot. The trio becomes more focused with their balances and inventive with the shapes, moving the legs from the front to back and even experimenting with lowering the torso while lifting the leg.

Mr. Soto leads the children in a lively singing and dancing performance of Juanito (Little Johnny). The children shake and twist their bodies while clapping their hands as they sing. "Juanito cuando baila, baila, baila, baila. Juanito cuando baila, baila con el dedito, con el dedito, ito, ito. Asi baila Juanito." (When little Johnny dances, he dances, dances. When little Johnny dances, he dances with his pinkie, with his pinkie, pinkie, pinkie. That's how little Johnny dances.)

In the first verse, they wiggle the pinkie back and forth; in the second, they shake the foot and then wiggle the pinkie. Each time a new verse is sung, a movement is added until the children's bodies are in motion, from head to toe!

Even Matthew, who is generally reluctant to dance, picks his knees high up and waves his arms exuberantly. Mr. Soto changes the character of the song to Mateo, and Matthew dances into the center of the circle.[6]

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11.9: Engaging Families

Teachers can make the following suggestions to families to facilitate their support of the creative arts for their children:

- Try drawing, painting, and sculpture with the child at home.
- Embrace dramatic play at home. Provide props, costumes, space, and time.
- Show interest in their play and play with them.
- Turn on the music and move with their children.
- Incorporate dance and movement into everyday routines.
- Tap and clap to rhythm of songs and encourage children to do the same.
- Notice and talk about works of art seen and songs and music heard at home and in the community.
- Notice and talk about shapes and colors in works of art and in the environment, sounds heard, episodes of dramatic play
- Incorporate dramatic play into a variety of activities, such as reading and going on outings or trips.
- Bring the child to an art museum or areas in the community with public displays of art, community concerts, family-child music classes, community dance performances, and movement programs.
- Be open-minded and encouraging about works of art that are sent home from the preschool setting, children's spontaneous musical performances, children's dramatic play
- Share art, songs, music, and dance traditions or movement games from their homes.
- Donate materials that can be used in a variety of art experiences.
- Come to watch or participate in an art show, children's dramatic experiences, or a parent-child dance event[1]



Figure 11.12: These children are looking at this three-dimensional piece of artwork.[2]

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11.10: Conclusion

The arts take on different meanings and expressions for individuals and communities. Therefore, this chapter recognizes that the arts will materialize and thrive in ways individual to each child and to the early childhood setting. This curriculum framework serves as a starting point and reference for teachers and child care providers to shape how the arts can be orchestrated or simply unleashed, as well as integrated, with other early learning experiences. Each arts strand (visual art, music, drama, and dance) is given attention; suggested teaching strategies, interactions, and environmental supports are illustrated with vignettes. However, within each strand there are numerous opportunities to weave two or more of the four art forms into the learning environment. More importantly, there are opportunities to integrate the arts in the other domains such as physical development, science, mathematics, and language and literacy.

It is essential to keep in mind that teachers serve diverse groups of children. The interactions between the home and school are mutual and mutually important. Diversity is an essential quality of human existence, and the creative arts provide excellent opportunities to learn, understand, and express diversity.[1]

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CHAPTER OVERVIEW

12: History and Social Science

Learning Objectives

By the end of the chapter, you should be able to: Explain how history and social sciences are appropriate to plan for in early childhood education programs.

- Describe the foundations in history and social science that high quality early childhood education programs support
- Discuss how the environment supports children's understanding and participation in history and social science
- Identify ways educators can support children's engagement in and understanding of history and social science.
- Summarize ways to engage families in curriculum for history and social science.

12.1: Introduction
12.2: Guiding Principles for Supporting History and Social Science
12.3: Environmental Factors in Supporting History and Social Sciences
12.4: Introducing to the Foundations
12.5: Conclusion

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12.1: Introduction

For many educators of young children, the terms history and social sciences conjure up images of children studying past presidents, learning about other countries, and exploring related topics during the primary school years. Yet, a look at young children's emerging sense of identity, their growing interest in the larger social world in which they live, and their developing understanding of time and place shows that history and social sciences are relevant to them also.



Figure 12.1: Early childhood education programs are Social Science in action.[1]

Young children are natural historians when they talk about their experiences and enjoy hearing family stories of "long ago." They are intuitive geographers when they recognize the route to the grocery store and create a map of the preschool room. Children are simple ecologists when they worry about a plant that is wilted or a bird's egg on a nature walk. They learn about democracy through their participation in shared decision making and taking turns on the playground. Their interactions with other children acquaint them with the diversity in culture, languages, backgrounds, and abilities in society. Young children are also everyday economists as they begin to understand how money, bartering, and exchange work in the world around them.

Preschoolers' understanding of history and social sciences naturally derives from their expanding knowledge of the world and their place in it. It also provides a foundation for the study of history, culture, geography, economics, civics and citizenship, ecology, and the global environment that begins in the primary grades and continues throughout life. Those topics are important because they provide a basis for understanding the responsibilities of citizens in a democratic society, the legacy of past generations who built society, the importance of caring for the natural world, and the rich diversity of other people.

In preschool, they are introduced to these important issues through everyday activities such as caring for a plant, remembering a recent trip to the zoo, deciding as a group on a name for the class pet, creating a shoe store, engaging in imaginative play with adult roles, or sharing family traditions from home. In other words, young children learn about history and social sciences from personal experiences, as they are enlisted into a preschool curriculum, and also from their experiences at home. [2]

References

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12.2: Guiding Principles for Supporting History and Social Science

A thoughtfully designed early childhood program includes many activities that contribute to children's understanding of history and social sciences. Some activities are carefully planned by a teacher to help children learn about weather patterns, bartering for goods and services, responsibilities as a class member, adult occupations, and many other ideas and concepts. Other activities emerge from the opportunities created by children's spontaneous interests and a teacher's capacity to build these into teachable moments. Taken together, they reflect the assumption that young children develop knowledge of history and the social sciences as they are encouraged to enact their understanding in everyday interactions with other children and adults. This knowledge helps young children understand themselves in a wonderfully expanding world. Here are some guiding principles on how to help children gain this knowledge.

- Build a cooperative, inclusive preschool community by ensuring that the curriculum maximizes children's opportunities to work together in ways that require responsible conduct, fairness, and respect for others.
- Create activities that will actively engage children's social skills and understanding.
- Affirm children's home cultures, experiences, and values.
- Build on preschool children's natural interest in their social world, and in the similarities and differences among the people in it.
- Model social behavior and attitudes with explanations.
- Actively teach and practice the essential skills of democratic participation.
- Encourage children to incorporate their knowledge of adult roles and occupations into their dramatic play.
- Observe and converse with children during play in order to learn about their current understanding of time and history.
- Help children deepen their own sense of place.
- Nurture children's sense of wonder about nature.[1]



Figure 12.2: Part of good citizenship, even in preschool, is using your voice to vote.[2]

References

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12.3: Environmental Factors in Supporting History and Social Sciences

When planning an environment to support children's learning in history and social science, effective teachers consider the physical, curricular, and social elements. The physical environment and daily routine set the stage for children's inquiry and should include ample time for children's self-initiated work, different spaces for solitary play and for collaborative play, and engaging materials that children are encouraged to use creatively. The curricular plan needs to provide opportunities and adult support for both group learning and for informal discovery and skill development. The key to a positive social environment is a teacher who actively models curiosity, openness, and engagement and who is eager to explore the world together with children. An environment that supports children's learning in history and the social sciences has the following characteristics:

- Extended projects that are centered on a topic in history or social science and emerge from children's interests and inquiries
- Reflective of diversity; as opposed to a tourist approach, teachers and children participate in authentic experiences with culture
- A balance between child choice and adult direction
- A variety of materials to support children's inquiry-based learning and practice in the skills of social science
- Materials that connect children to times and places
- Real experiences with nature and other environmental education materials
- Tools and practices for appreciating and caring for the earth and its resources
- Display of children's work and experiences
- Dramatic play props and materials that represent firsthand experience with social roles and occupations, as well as consumer actions
- High-quality children's books with content related to self, family, and community
- Extension of learning into the local community to help children learn in the "here and now" of the world around them
- Family involvement in program planning that is inclusive of community goals and values[1]

Research Highlight – Antibias Curriculum Approach

High-quality early childhood programs support children in developing their physical, cognitive, social, and emotional potential. The settings encourage children to explore their own sense of self and to develop an awareness and appreciation of others. Such experiences are foundational to becoming positive and constructive members of society and the world.

Creating an inclusive community of learners—one in which all individuals feel comfortable, confident, and competent—requires that educators take an anti-bias approach to the planning, implementation, and evaluation of their program. Educators who embrace an anti-bias curriculum approach reflect on their own identity and experiences. They extend their knowledge of different cultures and communities through conversation and discussion with children, families, and colleagues. They also confront bias in the preschool setting (e.g., "Girls can't play here" or "His eyes are a funny shape") to send a message that all children should be respected and that one's words can hurt other people.

Instead of using a one-size-fits-all curriculum, anti-bias educators design environments and activities that reflect the real experiences of children's lives. Educators routinely partner with families and community members to further enhance the early childhood program. Throughout the day, the adults in the preschool setting engage children in developmentally appropriate conversations about similarities and differences, and promote justice and fairness for all by helping children think critically about teasing, bullying, and other hurtful behavior. Activities that promote anti-bias education are integrated throughout the daily routine, thereby avoiding a tourist approach. "The heart of anti-bias work is a vision of a world in which all children are able to blossom, and each child's particular abilities and gifts are able to flourish." For more information on the anti-bias approach, refer to *Anti-Bias Education for Young Children and Ourselves*, by Louise Derman-Sparks and Julie Olsen Edwards. [2]

Source:

L. Derman-Sparks and J. O. Edwards, Anti-Bias Education for Young Children and Ourselves (Washington, DC: National Association for the Education of Young Children, 2010), 2.

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12.4: Introducing to the Foundations

The preschool learning foundations for History and Social Science are organized into five broad categories or strands:

- **Self and Society**: children's growing ability to see themselves within the context of society
- **Becoming a Preschool Community Member (Civics)**: becoming responsible and cooperative members of the preschool community
- **Sense of Time (History)**: developing understanding of past and future events and their association with the present
- **Sense of Place (Geography and Ecology)**: developing knowledge of the physical settings in which children live and how they compare with other locations
- **Marketplace (Economics)**: developing understanding of economic concepts, including the ideas of ownership, money exchanged for goods and services, value and cost, and bartering[1]



Figure 12.3: This child explored aeronautics and space through a mobile exhibit.[2]

Supporting Self and Society

An early childhood education setting acquaints young children with people who have different backgrounds, family practices, languages, cultural experiences, special needs, and abilities. In their relationships with teachers and peers, preschoolers perceive how others are similar to them and how they are different, and gradually they learn to regard these differences with interest and respect rather than wariness or doubt. This is especially likely if early childhood educators incorporate inclusive practices into the preschool environment. The relationships that young children develop with others in the preschool provide opportunities for understanding these differences in depth and in the context of the people whom the child knows well. One of the most valuable features of a thoughtfully designed early childhood program is helping young children to perceive the diversity of human characteristics as part of the richness of living and working with other people.

Young children are beginning to perceive themselves within the broader context of society in another way also. Their interest in adult social roles, occupations, and responsibilities motivates pretend play, excitement about visits to places such as a fire station or grocery store, and questions about work and its association with family roles and family income. Teachers can help young children explore these interests as children try to understand the variety of adult roles

1.0 Culture and Diversity

At around 48 months of age	At around 60 months of age
1.1 Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.	1.1 Manifest stronger cultural, ethnic, and racial identity and greater familiarly with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.

2.0 Relationships

At around 48 months of age	At around 60 months of age
2.1 Interact comfortably with many peers and adults; actively contribute to creating and maintaining relationships with a few significant adults and peers.	2.1 Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive.

3.0 Social Roles and Occupations

At around 48 months of age	At around 60 months of age
3.1 Play familiar adult social roles and occupations (such as parent, teacher, and doctor) consistent with their developing knowledge of these roles.	3.1 Exhibit more sophisticated understanding of a broader variety of adult roles and occupations, but uncertain how work relates to income.

Teachers can support children's development of the self and society foundations with the following:

- Practice a reflective approach to build awareness of self and others by examining your own attitudes and values
- Maintain a healthy curiosity about the experiences of others; ask authentic questions to build understanding
- Partner with families in goal setting and program design; learn individual family values and each family's goals for their child's care and education
- Prepare an active learning environment that incorporates the full spectrum of the human experience including diversity of cultures, ethnicities, gender, age, abilities, socioeconomic class, and family structure
- Create an environment, both indoors and outdoors, that is inclusive, meaning every child can fully participate and engage in the learning environment regardless of gender, home language, or abilities
- Address children's initial comments and inquiries about diversity with honest, direct communication
- Have discussions about similarities and differences
- Sing songs and share stories in different languages
- Plan meaningful and authentic celebrations with support of the children and families
- Read and talk about books that:
  - Accurately represent the lives and experiences of children
  - Deal with the theme of friendship and relating to others
  - Include images and stories of different workers
- Develop meaningful, nurturing relationships with the children in your program
- Prepare an early learning environment and daily routine that foster peer interaction
- Support children's development of interaction strategies and relationship building skills through:
  - Modeling
  - Explicit instruction during large-group times
  - Coaching and providing prompts
- Offer sensitive guidance through challenges
- Facilitate positive social problem solving
- Provide children with play props for exploring occupations and work settings
- Get to know the workers in your community
- Convey respect for the roles of adults who work at home
- Highlight the roles that elders play in family life and in society
- Include the pursuit of further education among work options
- Invite family members to share their work experiences, including those that may diverge from traditional gender roles
- Talk about future career goals
- Visit community stores, businesses, and service providers to observe workers in action[3]

Vignette

"You always get to do the money," complains Emma. Beck announces, "No, Tommy, I'm the customer. I was here first." Ella and Maya argue about the pieces of a plastic hamburger: "You can't have it again. It's the only one . . . " These and similar interactions between children have been typical in the area ever since Ms. Berta added the "Restaurant" prop box to it.

Now Ms. Berta is struggling to figure out how to foster more cooperation among children playing in this dramatic play area. The restaurant theme is very popular, but children's play is currently dominated by arguments over who gets to use which items from the restaurant prop box. Each child seems to be trying, independently, to hoard the most items from the box.

Ms. Berta shares her dilemma with Ms. Galyna, the school's mentor teacher, who says she can come in for a quick visit during the next day's play time. She follows her visit with some suggestions that help Ms. Berta rethink the area's design for the following week

On Monday, the children entering the area are greeted by a large restaurant sign. A waist-high shelf unit defines the front of the area. On top of it sit two toy cash registers, supplied with ample paper bills, plastic coins, receipt pads, and pencils. A clear plastic jar labeled “Tips” sits in between. On a hook, hang clip-on badges: Cook, Cashier, Server, and Customer. There are several of each. The shelves under the front counter hold stacks of paper drink cups and trays. The cooking pans and utensils are clearly displayed on the area’s stove and sink shelves, as are multiples of food items and dishes in the refrigerator and cupboard. The eating table is set for customers

Ms. Berta begins play time as a restaurant customer, placing her order, asking questions of the employees, and helping the other players think about what a cook, server, or cashier in a restaurant would do. She refers them to each other with their ideas and questions, and soon they are having restaurant conversations with her and with each other “in character.”

Over the next two weeks, the group makes changes and additions to the restaurant. At a class meeting, the group votes to make it a pizza restaurant, and the teacher adds donated pizza rounds that children cover with drawn-on toppings. With Ms. Berta’s help, interested children work in pairs to write and post menus. Several small groups of children remain intensely interested in the theme, and their play in the restaurant area becomes more elaborate and content-rich. With active teacher support and modeling, friends are able to constructively solve conflicts that occur.[4]

Pause to Reflect

1. What are some of your own biases and “blind spots” about people whose racial or cultural backgrounds are very different from yours?
2. In what ways could you partner with the families to support attitudes of acceptance and inclusion?

Supporting Becoming A Preschool Community Member (Civics)

An early childhood program is a wonderful setting for learning how to get along with others and for understanding and respecting differences between people. It is also an important setting for learning about oneself as a responsible member of the group. In an early childhood education setting, young children are enlisted into responsible citizenship for the first time outside of the family, encouraged to think of themselves as sharing responsibility for keeping the room orderly, cooperating with teachers and peers, knowing what to do during group routines (e.g., circle time), cleaning up after group activities, participating in group decisions, supporting and complying with the rules of the learning community, and acting as citizens of the preschool.



Figure 12.4: Knowing expected behavior during a large-group time is an important skill.[5]

Many formal and informal activities of an early childhood education setting contribute to developing the skills of preschool community membership. These include group decision making that may occur during circle time (including voicing opinions, voting on a shared decision, and accepting the judgment of the majority); resolving peer conflict and finding a fair solution; understanding the viewpoints of another with whom one disagrees; respecting differences in culture, race, or ethnicity; sharing stories about acting responsibly or helpfully and the guidance that older children can provide younger children or children with less positive experiences about being a preschool community citizen.

1.0 Skills for Democratic Participation

At around 48 months of age	At around 60 months of age

At around 48 months of age	At around 60 months of age
1.1 Identify as members of a group, participate willingly in group activities, and begin to understand and accept responsibility as group members, although assistance is required in coordinating personal interests with those of others.	1.1 Become involved as responsible participants in group activities, with growing understanding of the importance of considering others' opinions, group decision making, and respect for majority rules and the views of group members who disagree with the majority.

2.0 Responsible Conduct

At around 48 months of age	At around 60 months of age
2.1 Strive to cooperate with group expectations to maintain adult approval and get along with others. Self-control is inconsistent, however, especially when children are frustrated or upset.	2.1 Exhibit responsible conduct more reliably as children develop self-esteem (and adult approval) from being responsible group members. May also manage others' behavior to ensure that others also fit in with group expectations.

3.0 Fairness and Respect for Other People

At around 48 months of age	At around 60 months of age
3.1 Respond to the feelings and needs or others with simple forms of assistance, sharing, and turn-taking. Understand the importance of rules that protect fairness and maintain order.	3.1 Pay attention to others' feelings, more likely to provide assistance, and try to coordinate personal desires with those of other children in mutually satisfactory ways. Actively support rules that protect fairness to others.

4.0 Conflict Resolution

At around 48 months of age	At around 60 months of age
4.1 Can use simple bargaining strategies and seek adult assistance when in conflict with other children or adults, although frustration, distress, or aggression also occurs.	4.1 More capable of negotiating, compromising, and finding cooperative means of resolving conflict with peers or adults, although verbal aggression may also result.

Teachers can support children's development of the civics foundations with the following:

- Share control of the preschool environment with children
- Create community rules with children's input and plan opportunities to continue discussing them with small- and large-group meetings
- Promote a sense of connection and community by using terms such as "we" and "our" when speaking with children and adults
- Incorporate class meetings into the daily routine of older preschool children
- Support freedom of thought and speech in individual investigations, as well as in planned group experiences
- Generate community rules and expectations to protect the rights of each individual and to create a community of trust and security
- Engage children in community brainstorming and problem solving
- Make group decisions when appropriate
- Acknowledge emotions related to group brainstorming and decision making
- Model the skills and behavior you want children to exhibit
- Use guidance to redirect children to more appropriate actions and behavior by using positive descriptions of what you expect children to do
- Help children remember and meet community generated rules and expectations by providing both visual and auditory cues and prompts
- Reinforce the positive actions of children by using descriptive language, emphasizing the positive impact of a child's actions on others
- Facilitate problem solving
- Create an inclusive environment that values and encourages the participation of children from all cultural and linguistic backgrounds as well as children with special needs



Figure 12.5: Puppets allow children to role play social situations.[6]

- Set the tone for responsible conduct by creating a high-quality learning environment and thoughtfully scheduled daily routine
- Assign tasks for community care, such as watering plants, feeding program pets, or helping to prepare snacks, to help children practice responsibility
- Discuss the “whys” of fairness and respect
- Teach social skills, such as patience and generosity, by using social stories and role-play experiences
- Intervene and address negative interactions immediately
- Prevent conflicts by limiting program transitions and minimizing waiting time
- Provide children with a calm presence in conflict situations
- Support children’s conflict resolution by
- using descriptive language to help children make sense of conflict
- prompting children with open-ended questions and statements
- facilitating, rather than dictating, the solution process
- Create and refer children to problem-solving kits with visual cues
- Use and discuss books that have storylines around relationships, community, and conflict
- Use “persona dolls” or puppets and social stories to promote skill development and perspective taking[7]

Vignettes

The children gather for circle time, and after the group’s gathering song, Ms. Anya begins dramatically. “Today I am going to tell you a story about something that just happened in our room.

At the beginning of playtime today, two of our friends, Julia and Javier told me their plan was to work with the medical kits in the house area. They were going to use the stethoscopes, bandages, and all the other medical tools to take care of the babies. I told them I would plan to visit later to see if their patients were feeling better.

A few minutes later, Julia and Javier hurried over to tell me that all the babies were missing. They had looked all over the clinic, and had found no babies! Where do you think they looked?”

The children in the group call out their ideas about all the places the children could have looked. Ms. Anya continues, “You are right. They looked in all those places. No babies. So what did they do next?” Many children around the circle who are now recalling the incident call out, “They asked us to help!” “That’s right,” affirms Ms. Anya. “They know what good problem solvers you are and how good you are at teamwork, so they asked you. Pretty soon you gave them lots of helpful suggestions of places to look. And did they find the babies?” “Yes!” the children call out. “And where were the baby dolls, Julia and Javier?” “They were out on the porch!” the children respond, laughing.

Ms. Anya concludes the story by repeating, “Yes, you are right. The dolls were out on the porch drying after yesterday’s bath. Thank you all for helping us solve the mystery of the missing baby dolls.”[8]

Pause to Reflect

What are some ways educators can be a good example for children to follow as they learn skills for being members of a community?

Supporting Sense of Time (History)

One of our unique human characteristics is the ability to think of ourselves in relation to past events and to anticipate the future. The ability to see oneself in time enables us to derive lessons from past experiences, understand how we are affected by historical events, and plan for the immediate future (such as preparing a meal) or the long-term (such as obtaining an education). The ability to see oneself in time is also the basis for perceiving one’s own growth and development, and the expectation of future changes in one’s life.

The preschool years are a period of major advances in young children’s understanding of past, present, and future events and how they are interconnected. Yet their ability to understand these interconnections is limited and fragile. Young preschoolers have a

strong interest in past events but perceive them as "islands in time" that are not well connected to other past events. As they learn more about events of the past, and with the help of adults, children develop a mental timeline in which these events can be placed and related to each other. This is a process that begins during the preschool years and will continue throughout childhood and adolescence.

A thoughtfully designed early childhood program includes many activities that help young children develop a sense of the past and future. The activities may include conversations about a child's memorable experiences, discussions of a group activity that occurred yesterday, stories about historical events, circle-time activities in anticipation of a field trip tomorrow, and picture boards with the daily schedule in which special events can be distinguished from what normally happens. In these and other ways, teachers help young children construct their own mental timelines.



Figure 12.6: Children can share about things meaningful to them (from the past).[9]

1.0 Understanding Past Events

At around 48 months of age	At around 60 months of age
1.1 Recall past experiences easily and enjoy hearing stories about the past, but require adult help to determine when past events occurred in relation to each other and to connect them with current experience.	1.1 Show improving ability to relate past events to other past events and current experiences, although adult assistance continues to be important.

2.0 Anticipating and Planning Future Events

At around 48 months of age	At around 60 months of age
2.1 Anticipate events in familiar situations in the near future, with adult assistance.	2.1 Distinguish when future events will happen, plan for them, and make choices (with adult assistance) that anticipate future needs.

3.0 Personal History

At around 48 months of age	At around 60 months of age
3.1 Proudly display developing skills to attract adult attention and share simple accounts about recent experiences.	3.1 Compare current abilities with skills at a younger age and share more detailed autobiographical stories about recent experiences.

4.0 Historical Changes in People and the World

At around 48 months of age	At around 60 months of age
4.1 Easily distinguish older family members from younger ones (and other people) and events in the recent past from those that happened "long ago," although do not readily sequence historical events on a timeline.	4.1 Develop an interest in family history (e.g., when family members were children) as well as events of "long ago," and begin to understand when these events occurred in relation to each other.

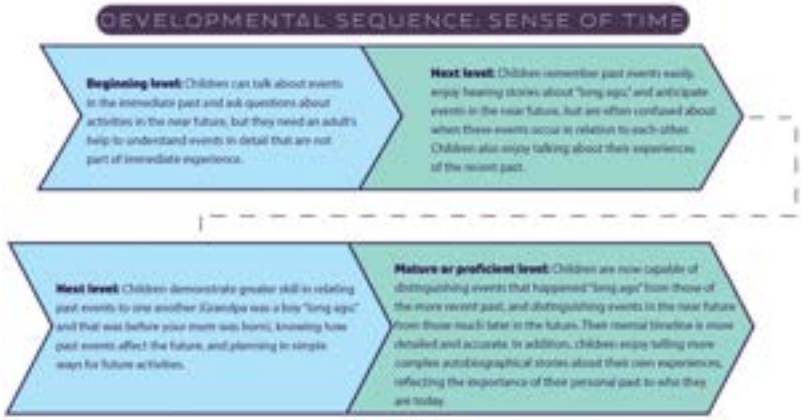

Figure 12.7: Developmental Sequence: Sense of Time.[10]

Teachers can support children's development of the history foundations with the following:

- Use predictable routines to facilitate children's sense of time
- Incorporate time words into conversation, such as before, after, yesterday, first, next, and later
- Create opportunities to talk with children about meaningful experiences and build connections between current and past events and to anticipate future events
- Extend and expand on children's narrative descriptions with language relating to time
- Share your memories of the children's abilities over time
- Ask questions to increase children's recollections of events
- Document and display children's work at their eye level to encourage recall and reflection
- Sing songs, recite poetry, and read books that involve sequencing
- Promote planning as children engage in child-initiated projects
- Acknowledge birthdays, with sensitivity to family preferences
- Provide activities that invite personal reflection
- Make use of children's stories that explore growth and individual change
- Utilize familiar resources, such as parents, grandparents, family members, close friends and community members, to share their own childhood experiences
- Read children's stories about different places and times to expand children's perspective
- Expose children to the arts
- Observe changes in animals, plants, and the outdoors
- Record significant events on a large calendar to create a program history
- Provide children with hands-on experiences with concrete artifacts and historical objects (e.g., toys, utensils, tools)[11]

Vignettes

At outdoor play time, Mateo hurries over to a large tree limb lying at the edge of the playground. "Look what happened!" he exclaims. "Yeah," agrees Luis, who had joined him, "the wind did it. It crashed down our big tree, too, right into the street. Some guys are coming to saw it up." Luis pauses. "My grandma said that tree was really old." Ms. Sofia, who has followed them to the area, joins the conversation. "Your grandma told me about that when she came with you this morning. It's a big surprise when a tree that was there just yesterday suddenly isn't there anymore today, especially when it had been growing there for a long, long time. Things like that can happen fast. What do you think will be different when you get home this afternoon?"

For today's circle time, Ms. Robin has prepared a two-column chart with the headings: "When I was a baby, I couldn't . . ." and "Now I can . . ." She reads the first phrase and asks the group to think of things they were not able to do as babies. As children share their ideas, including, "I couldn't walk; I couldn't ride a trike, I couldn't eat apples . . ." she lists them in the first column. When they finish, she reads all the ideas aloud to the group.

Ms. Robin then points to the phrase, "Now I can . . ." and again asks for children's ideas. After they finish sharing, she reads aloud the second list. As she points to each list, she comments to the group enthusiastically, "Look how many things you

couldn’t do when you were a baby! Look how many things you can do now! You’ve grown so much!”

Nico looks through the familiar homemade, photo-illustrated book titled Teacher Jen’s Broken Ankle that is displayed on the reading area book rack. “My papa fell and broke his arm when he was a little boy,” he tells Ms. Jen. She asks him how it happened, and he tells her the story his papa has told him. Ms. Jen wonders with Nico whether his papa had to wear a cast on his arm while it was healing. Nico says he thinks so, because he remembers that Papa was supposed to keep his arm dry for a long time. He then asks Ms. Jen to show him again the ankle cast she wore while her leg was healing. She keeps the two halves of her bright pink cast in the “Hospital” prop box that teachers use in the dramatic play area when children’s play signals interest in medical themes.[12]

Pause to Reflect

How might you want to partner with families to make the preschool environment reflective of their diverse family stories?

Supporting Sense of Place (Geography and Ecology)

Each person has a sense of the places to which they belong: home, workplace, school, and other locations that are familiar and meaningful. Young children experience this sense of place strongly because familiar locations are associated with important people who constitute the child’s environment of relationships. Locations are important because of the people with whom they are associated: home with family members, preschool with teachers and peers. Preschoolers also experience a sense of place because of the sensory experiences associated with each location: the familiar smells, sounds, and sometimes temperatures and tastes combine with familiar scenes to create for young children a sense of belonging.

Developing a sense of place also derives from how young children interact with aspects of that physical location. Preschool children relate with their environments as they work with materials; rearrange tables, chairs, and other furniture; create maps to familiar locations; travel regularly from one setting to another; and work in other ways with their environments. Young children also interact with their environments as they learn to care for them. Young children’s natural interest in living things engages their interest in caring for plants and animals, concern for the effects of pollution and litter on the natural environment, and later, taking an active role in putting away trash and recycling used items.

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Figure 12.8: Gardening is an excellent opportunity to care about plants.[13]

These interests present many opportunities to the early childhood educator. Young children can be engaged in activities that encourage their understanding of the environments in which they live, whether they involve creating drawings and maps of familiar locations, talking about how to care for the natural world, discussing the different environments in which people live worldwide, or taking a trip to a marshland or a farm.

1.0 Navigating Familiar Locations

At around 48 months of age	At around 60 months of age
1.1 Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with various degrees of accuracy).	1.1 Comprehend larger familiar locations, such as the characteristics of their community and region (including hills and streams, weather, common activities) and the distances between familiar locations (such as between home and school), and compare their home community with those of others.

2.0 Caring for the Natural World

At around 48 months of age	At around 60 months of age
2.1 Show an interest in nature (including animals, plants, and weather) especially as children have direct experiences with them. Begin to understand human interactions with the environment (such as pollution in a lake or stream) and the importance of taking care of plants and animals.	2.1 Show an interest in a wider range of natural phenomena, including those not directly experienced (such as snow for a child living in Southern California), and are more concerned about caring for the natural world and the positive and negative impacts of people on the natural world (e.g., recycling, putting trash in trash cans).

3.0 Understanding the Physical World Through Drawings and Maps

At around 48 months of age	At around 60 months of age
3.1 Can use drawings, globes, and maps to refer to the physical world, although often unclear on the use of map symbols.	3.1 Create their own drawings, maps, and models; are more skilled at using globes, maps, and map symbols; and use maps for basic problem solving (such as locating objects) with adult guidance.

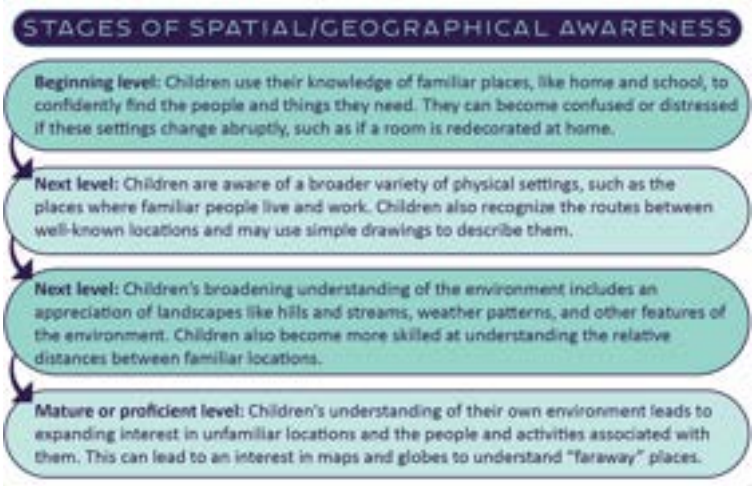

Figure 12.9: Stages of Spatial/Geographical Awareness.[14]

Teachers can support children's development of the geography and ecology foundations with the following:

- Supply open-ended materials in the indoor and outdoor early learning environment to promote exploration of spatial relationships
- Set aside time for outdoor explorations each day
- Provide children with sensory experiences, especially those with sand and water
- Describe your own actions as you travel between locations
- Play games about how to get from here to there
- Engage children in conversation about how they travel to and from preschool each day
- Take walks through familiar locations and neighboring areas
- Talk about the here and now as well as encouraging later reflection
- Locate and explore local landmarks
- Promote children's understanding of weather and its impact on their day-to-day experiences
- Comment on weather patterns and invite children to share their observations
- Read aloud books and engage children in storytelling related to
- navigating familiar locations and daily routines
- investigating the earth and its attributes
- Integrate living things into the indoor learning environment
- Observe life in its natural setting
- Compare and contrast living and nonliving things
- Model respect and care for the natural world
- Use descriptive language to talk about the earth and its features
- Teach young children easy ways to conserve the earth's resources
- Grow a garden in the program's outdoor space
- Eat fresh produce at snack time and obtain food directly from a local gardener, farmers market, or food vendor when possible
- Engage children in conversations about maps, provide map-making materials, incorporate maps into dramatic play, use maps when planning outings, and make a mpa of the classroom/building and outdoor space
- Supply the learning environment with a variety of blocks and other open-ended materials to support the symbolic representation of the world the children see and experience each day
- Play board games that use trails and pathways
- View locations from different physical perspectives

- Prepare a treasure hunt[15]



Figure 12.10: These girls are drawing a map.[16]

Vignettes

Michael sits down with his peers and Mr. Sean at the snack table. “There was a huge dump truck going down my street today,” he tells everyone. Mr. Sean asks him what was in the truck. “Rocks and big sidewalk pieces,” replies Michael. “I know that,” adds Rio. “It’s by my house. Papa says they’re digging up the street for water pipes.” Several other children nod and agree that they know where that is and they have gone by it, too. Mr. Sean tells the children that the construction site they are talking about is just around the corner and down one block from their preschool. “Would you like to take a walk together to watch them work?” he asks. “It sounds like a big and exciting construction project is happening in our neighborhood.”

“I like this place,” shares Maya as she looks around the small reading area. “What do you like about it?” asks Ms. Nicole. “I like the green. It’s like un bosque.” Yes, agrees Ms. Nicole. The green plants do make it seem like a forest.”

This is the castle for the princess and her friends,” explains Grace to Tanya as she describes her unit block structure. “Here’s the bedroom over here, and the tower over there.”

Ms. Julia, sitting in the block area to observe children’s play, responds, “It looks like a very long way from the bedroom to the tower. Do the princess and her friends ever get lost in the castle?” “Well . . . sometimes they do,” replies Grace. “I wonder if we could draw something to help them find their way,” suggests Ms. Julia. “Like a map!” exclaims Tanya to Grace.

Ms. Julia offers to bring the clipboards, equipped with paper and pencils, from the art area. She takes one and begins describing her drawing plan. “First I’m going to draw a square for the bedroom in this corner . . . ” The girls begin by imitating her technique and soon are exchanging ideas with each other as they draw their versions of the castle. When they are finished, Ms. Julia asks questions about the parts of their castle maps and offers to label them. When the maps are finished, labeled, and signed, Ms. Julia asks the girls’ permission to display them on the block area wall.[17]

Pause to Reflect

What would be ways you would be comfortable bringing caring for the natural world into your own classroom? What might some things to try beyond that?

Supporting Marketplace (Economics)

Young children’s interest in adult roles and occupations extends to the economy. Preschoolers know that adults have jobs, and they observe that money is used to purchase items and services, but the connections between work, money, and purchasing are unclear to them. This does not stop them, however, from enacting these processes in their pretend play and showing great interest in the economic transactions they observe (such as a trip to the bank with a parent).

Moreover, young children are also active as consumers, seeking to persuade their families to purchase toys or access to activities that they desire, sometimes hearing adult concerns about cost or affordability in response. On occasion, they also learn about economic differences between people and families, such as when a parent is unemployed or when families are living in poverty. All of these activities convince them that the economy, while abstract to them, is important.

A carefully designed early childhood education setting provides many opportunities for young children to explore these ideas through play, conversation, and the creation of economic items to buy, sell, or exchange.



Figure 12.11: A cash register is an excellent prompt for exploration of economics.[18]

1.0 Exchange

At around 48 months of age	At around 60 months of age
1.1 Understand ownership, limited supply, what stores do, give-and-take, and payment of money to sellers. Show interest in money and its function, but still figuring out the relative value of coins.	1.1 Understand more complex economic concepts (e.g., bartering; more money is needed for things of greater value; if more people want something, more will be sold).

Teachers can support children's development of the economics foundations with the following:

- Introduce economic concepts (e.g., production, exchange, consumption) through children's books
- Provide open-ended materials to support children's spontaneous investigations of business and the economy
- Offer dramatic play experiences that allow children to explore economic concepts
- Explore alongside children, expanding on their initiative
- Draw attention to trends of consumption in the preschool setting
- Discuss wants and needs with children and allow children to help make economic decisions
- Explore all forms of exchange
- Visit local businesses
- Create an opportunity for children to make and sell their own product; discuss how the money made will be spent[19]

Vignettes

Ms. Jen settles into the reading chair to begin large group story time. She holds a tall empty jar, a small cloth bag, and a book.

"Today I brought something with me to help me tell a story," she begins. Then she holds up the small drawstring bag and shakes it. "Money!" call out the children. "Yes, it is money. My little bag is full of coins: nickels, dimes and quarters," she says, pulling out one of each. "This book is all about a family who collects coins and saves them in a jar that looks a lot like this one. It's called A Chair for My Mother, and Vera B. Williams is the author. She wrote the words. She is also the illustrator, which means she painted the pictures."

As Ms. Jen reads the book, she stops frequently to converse with children about what is happening in the story. "The mother in this story works as a server in a restaurant. That's how she earns money to buy the things her family needs." After reading the page that describes the "tips" that Mother brings home and puts into the jar, Ms. Jen asks the group if anyone they know gets tips at work. After explaining the idea, she pours the coins from her small bag into the tall jar she has brought as a story prop.

When she reads the pages about the family's moving day, when all their relatives and neighbors brought things they needed to replace the ones lost in the fire, Ms. Jen talks about how people don't always buy all the things they have. Sometimes people receive gifts and things that others share with them.

As each economic concept is introduced in the book, Ms. Jen pauses to draw attention to it, while maintaining the flow of the story. At the end, she holds up the jar of coins and asks the group how long they think it took for Josephine's family to collect enough coins to buy the chair. She responds to their comments, listening as they share their own related ideas. She concludes by telling them that the book will be in the reading area tomorrow for them to enjoy again.[20]

Pause to Reflect

What resources are in your neighborhood that a preschool teacher could use to introduce children to the community's economic life?

Engaging Families

Teachers can make the following suggestions to families to facilitate their support of history and social science

- Encourage families to tell stories and sing songs to their child about their home culture
- Remind families that they are the child's most influential models.
- Support families to help their child develop strong, warm relationships with adults and children among their family and friends.
- Suggest ways that family members can talk with their child about the daily work they do.
- Suggest that adults find household projects to work on with their child.
- Remind adults to notice and recognize times when their child is being cooperative and responsible.
- Encourage adults to talk with their child about respect and fairness.
- Work with adult family members as they establish some simple, age-appropriate rules to be followed at home and help children understand that there is a reason for each rule.
- Share ways to establish some dependable family rituals and routines.
- Remind families to discuss family plans and events with children before they occur.
- Share with family adults the importance of recounting past shared events with their children. Suggest that they use storytelling to help children remember the sequence and details of both everyday and special experiences.
- Suggest that families find a special place for items that document children's growth.
- Encourage adult family members to tell children stories about their family's history.
- Suggest that they look for maps in places where their family goes.
- Suggest taking different routes when going to familiar places.
- Encourage families to talk about nature (i.e., weather, seasons, plants, animals, and so on) with their child.
- Encourage families to have conversations about ways they can help the earth (reduce waste, conserve natural resources, compost, etc.)
- Suggest that adult family members share with their child elements of the natural world they especially enjoy.
- Encourage families to talk with their child about the connection between cost and decisions to buy items and services.
- Assure families that it is fine to have conversations about "wants" and "needs."
- Suggest that families show their child some alternative ways to acquire things the family needs or wants, as well as ways to help meet the needs of others.
- Encourage families to begin to share with preschool children their own values about money.
- Prepare yourselves, as early care and education professionals, to play an active role in supporting families facing personal economic crises. Educate yourselves about available community services and, when possible, help families to obtain access to them.[21]



Figure 12.12: This three-year-old boy is helping with the dishes.[22]

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12.5: Conclusion

The knowledge and skills in history and social science that preschoolers acquire in an early education setting provide a foundation for their understanding of themselves and the world in which they live. Adults benefit from the perspective of history (of society, families, and one's personal past). People are connected deeply to the physical settings and natural ecologies in which they live. People learn about themselves and others by comparison with people who differ in culture, language, ethnicity, traditions, and abilities. Human lives are shaped by the economy and its influence on people's roles as workers, consumers, and investors. Citizens participate with others in the political process and in building their communities. As preschoolers learn about these topics through instruction, enactment, and play, they are introduced to issues that will remain important to them for years to come.[1]

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CHAPTER OVERVIEW

13: Physical Development

Learning Objectives

By the end of the chapter, you should be able to: Explain the importance of planning to support children's physical development

- Describe the foundations in physical development that high quality programming support children in reaching
- Recognize sequences of physical development
- Advocate for active play
- Identify ways for educators to support physical development
- Summarize ways to engage families in curriculum for physical development

13.1: Introduction
13.2: Guiding Principles of Supporting Children's Physical Development
13.3: Environmental Factors in Supporting Children's Physical Development
13.4: Introducing the Foundations
13.5: Supporting Fundamental Movement Skills
13.6: Supporting Perceptual-Motor Skills and Movement Concepts
13.7: Supporting Activity Physical Play
13.8: Conclusion
13.9: Engaging Families

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13.1: Introduction

Young children learn best by doing. Active physical play supports preschool children's brain development and is a primary means for them to explore and discover their world. Physical activities enhance all aspects of development, including cognitive, emotional, social, as well as physical.

- Cognitive growth occurs when children problem-solve how to negotiate an obstacle course or how to build a fort.
- Emotional development is supporting when children's confidence and willingness to try new activities increases.
- Social development is supported through the interaction with other children and the development of friendships through active play.
- Being active also has clear benefits for children's health and fitness.

The preschool years are a prime time for children's physical development. Preschool programs have a key role in maximizing children's developmental potential during this important time by providing well-designed, regular, and frequent opportunities for physical play. Although many of young children's physical activities are exploratory and self-directed, children greatly benefit from adult encouragement and guidance when learning new physical skills. Teachers tap into children's intrinsic motivation for movement by designing meaningful, culturally appropriate, and accessible play activities in which all children feel challenged yet successful.



Figure 13.1: These children learn to navigate obstacles by practicing it on this play structure.[1]

Teachers are important role models in the area of physical development. Children benefit immensely when teachers engage in physical activities alongside children and share in the fun of physical movement. Just as important, preschool programs collaborate with family and community members to promote children's physical development. Family support and participation foster children's active lifestyle habits. Promoting active lifestyles during the preschool years will benefit children throughout their lives. [2]

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13.2: Guiding Principles of Supporting Children's Physical Development

Teachers play a critical role in supporting children's physical development because physical skills need to be explicitly and deliberately taught. Physical play, both indoors and outdoors, is not merely "free time"; it requires thoughtful planning and intentional interactions. The following guidelines will help teachers support children's physical development.

Developmentally appropriate movement programs accommodate a variety of individual differences among children.

Children often learn best through maximum active participation. There should be a daily quest to minimize sitting, waiting, and watching so children enjoy meaningful participation in physical activities. Maximum purposeful participation at some level is a challenging but attainable goal.

The physical safety of children's play environments should be of paramount importance at all times (children should be able to take reasonable risks).

Family members working as partners with teachers are key to enriching the physical development of children.

Inclusion of children with special needs is beneficial to all and promotes greater understanding of and respect for diversity.

Children are multisensory learners with unique learning styles.

To maximize teaching effectiveness, movement skill learning should first focus on improving body coordination and increasing awareness of body movements. The product, or quantitative aspect of movements (e.g., how far they jumped, or how fast they ran), should not be the initial focus of learning.

Children generally learn new movement skills more easily when they can focus on one specific aspect of the skill at a time.

Children benefit from ample opportunities to practice new physical skills.

Children benefit from integrated learning activities across the curriculum.

Frequency, intensity, type, and duration are the four key parameters to designing active physical play to enhance children's fitness and health. The four parameters may be thought of as the FITT principles (Frequency, Intensity, Type, Time [duration]).

o "Frequency" refers to the regularity of engaging in physical activity; frequent short periods of physical activity each day are preferred (children should not be sedentary for more than 60 minutes at a time except when sleeping).

o "Intensity" refers to whether activities are sedentary, mild, moderate, or vigorous; moderate to vigorous activities are preferred.

o "Type" deals with the specific kind of physical activity engaged in; for young children, the types of activities usually take the form of active games, child-initiated play, as well as rhythms and dance.

o "Time" (duration) refers to the amount of time in which the child is engaged in physical activity; accumulating at least 60 minutes, and up to several hours, of moderate to vigorous physical activity per day is recommended.

Physical skills are more easily learned when clear instructions and appropriate feedback are provided in children's home language using familiar communication methods.

Allow children to take risks. Risk taking allows children to challenge themselves, and to assess their own skills and abilities.[1]

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13.3: Environmental Factors in Supporting Children's Physical Development

The following recommendations apply to establishing the preschool environment as related to the three Physical Development strands: Fundamental Movement Skills, Perceptual–Motor Skills and Movement Concepts, and Active Physical Play

- Teachers promote optimal physical development when they provide children with positive encouragement and quality instruction (both indirect and direct). Teachers "set the stage" and "create the climate" for movement skill learning.
- The immediate physical environment is a powerful influence on children's physical development. The physical environment, play materials, and play themes can all be skillfully designed to promote active play. Both indoor and outdoor play environments should encourage fun and enjoyable learning.
- Indoor and outdoor play environments should include a variety of appropriately sized equipment that promotes both gross and fine motor development.
- Learning is most meaningful when the environment and materials reflect and accommodate children's individual interests, backgrounds, and present abilities. Embrace the richness of diversity by learning about children's culture, language, customs, music, physical activities, and focus on the unique gifts that each child brings to the learning environment.
- Take time to build safety into both the indoor and outdoor play environments.
- A safe environment reduces the need for adults to say no. It is important to establish clear expectations. Limits should be set rather than rules (rules eliminate reasonable risk) in order to ensure personal safety. Be particularly cognizant when working with children who have disabilities that impact their impulse control and judgment. Also, differences in cultural expectations for girls and those for boys, as well as language differences, may impact the critical need for building safety into children's regular play environments.
- Playground equipment, such as climbing, hanging, and sliding structures, should be checked regularly for safety hazards.
- Movement experiences should include exploration, discovery, and appreciation of the natural environment. Nature provides rich, diverse sensory experiences—sounds, smells, textures, and sights—that are beneficial for young children's sensorimotor development.
- Thoughtfully designed movement experiences, guided by adults, support children's physical development. Most children need more than just free play to acquire movement skills. Children benefit from teacher-guided, structured physical activities, particularly when they are learning new movement skills. Structured but flexible play activities that emphasize active participation, exploration, and self-discovery are ideal for practicing new, challenging physical skills.[1]



Figure 13.2: Not only are these children allowed to go up the slide, their teacher has added a rope to help them.[2]

Additional strategies that will help children's physical development:

- Provide opportunities that include diverse cultural themes.
- Challenge children's abilities by asking questions.
- Encourage persistence during challenging tasks.
- Modify activities to increase participation by children with disabilities and special needs.
- Observe and analyze children's skills to facilitate planning for learning opportunities.
- Learn about children's prior experiences and personal interests.
- Promote and be aware of the progressive development of skills.
- Plan meaningful, purposeful, and connected activities and games.
- Create culturally diverse scenarios for skills.
- Create meaningful scenarios that provide the opportunity for the integration of skills with other curriculum concepts.

- Use both unstructured and structured strategies, as well as multisensory experiences, in your teaching.
- Create developmental activities that provide a sense of success.
- Provide opportunities for repeated practice in a safe environment.
- Provide plenty of encouragement.
- Create activities that provide automatic feedback and a sense of accomplishment.
- Provide clear, specific feedback to facilitate children's problem-solving process.

Provide a variety of tools and media to promote participation.[3]

Pause to Reflect

How can family culture, language, and diversity be incorporated into fundamental movement activities? How can ideas and materials from children's different cultures be included in fine motor activities and games?

Research Highlight: Must Young Children Sit Still in Order to Learn?

Researchers have stated that high activity levels, impulsivity, and short attention span for sedentary activities are characteristics of typically developing preschool-age children. Children naturally need to move in order to learn. Being physically active boosts children's attention span and capitalizes on multisensory learning so that children are more likely to retain academic concepts such as colors, shapes, and the alpha-bet. The need for movement-based learning experiences may be particularly important for children with special needs. Research has shown that for children who have autism spectrum disorder and attention deficit hyperactivity disorder, being seated on a movable surface (e.g., a therapy ball) resulted in increased ability to stay on task and remain seated during classroom learning activities. However, children seated on a static surface such as a bench, chair, or floor were less able to remain on task. Experts have suggested that adults' efforts to entice young children to sit still, pay attention, and be quiet during learning activities often run contrary to children's natural needs for physical movement. [4]

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13.4: Introducing the Foundations

The preschool learning foundations for physical development are organized in terms of three broad categories or strands:

- Fundamental Movement Skills
- Perceptual–Motor Skills and Movement Concepts
- Active Physical Play[1]

The first strand is Fundamental Movement Skills. Most preschool children can acquire reasonable levels of competence in a wide range of movement activities, including balance, locomotor skills, and manipulative skills (both gross motor and fine motor), when given opportunities for instruction and practice in an enriched environment. The second strand is Perceptual-Motor Skills and Movement Concepts. This strand focuses on the development of body awareness, spatial awareness, and directional awareness. These skills are important for interacting with others and for exploring the environment. The third strand is Active Physical Play. Active physical play promotes children's health and physical fitness by increasing their levels of active participation, cardiovascular endurance, muscular strength, muscular endurance, and flexibility.[2]

The specific foundations are included later in the chapter as each strand is explored. They include what children should be able to do when in high quality early childhood program at around 48 months and at around 60 months (which roughly corresponds to the end of the first year and the end of second year of preschool).[3]

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13.5: Supporting Fundamental Movement Skills

Fundamental movement skills are the foundations on which more complex movement skills are built. Early childhood is a crucial and unique time for developing coordination of the basic movement skills. During this period, daily movement experiences significantly influence children's patterns of movement and their future as happy, active movers. Children who develop these fundamental movement skills tend to become confident movers and have the building blocks for an active way of life.

Fundamental movement skills emerge following a developmental sequence from simple to more complex body actions. Initially, when children attempt a movement pattern, they move few body parts (e.g., when throwing, move only one arm while the rest of their body remains still). As their movement skills develop, children begin incorporating other body parts (e.g., throwing with one arm while stepping with one foot). Research-based developmental sequences represent common pathways of development and can guide instruction and learning. However, each child's development is unique and affected by many factors (e.g., genetics, culture, special needs, socioeconomic status, environment, and practice). Teachers should expect variations in individual development.

Fundamental movement skills develop through meaningful interactions with the environment, people, and objects; through both structured (e.g., teacher-guided) and unstructured (e.g., child-initiated play) practice of movement skills; through the integration of fundamental motor skills into the preschool curriculum; and through the integration of fundamental movement skills into the daily home life of children. Children's movement activities should be designed with consideration of the multiple cultures and diversity of the participants. In addition, teachers need to be sensitive to children with disabilities and special needs and modify the tasks, context, or environment, including appropriate assistive devices and instructional strategies, to facilitate the development of fundamental skills for all children.

Fundamental movement skills include:

Balance



Figure 13.3: This young boy is practicing his balance.[1]

The ability to balance is fundamental to all body movements. All movement involves elements of balance, and each movement has different balance requirements.

1.0 Balance

At around 48 months of age	At around 60 months of age
1.1 Maintain balance while holding still; sometimes may need assistance.	1.1 Show increasing balance and control when holding still.
1.2 Maintain balance while in motion when moving from one position to another or when changing directions, though balance may not be completely stable.	1.2 Show increasing balance control while moving in different directions and when transitioning from one movement or position to another.

Teachers can support children's developing balance with the following:

- Design spaces and activities to develop balance following a developmental progression.
- Incorporate balance activities into the children's world (such as acting out balancing challenges).
- Provide opportunities for activities that include both active movements and still body positions.
- Post pictures of balance positions and balance activities (can be of culturally representative athletes, dancers, performers, including those with disabilities).
- Design the environment so children combine balance skills with fundamental movement skills and movement concepts.

- Use visual aids, foot and handprints, and objects on the floor to promote balancing skills.

Locomotor Skills

The movement skills that children use to move effectively and efficiently through space. These skills allow children to travel, explore, and discover their environments. Preschool children use locomotor skills in their daily activities to move from one area to another.



Figure 13.4: Running is a locomotor skill that is being refined during early childhood.[2]

2.0 Locomotor Skills

At around 48 months of age	At around 60 months of age
2.1 Walk with balance, not always stable, oppositional arm movements still developing, and relatively wide base of support (space between feet).	2.1 Walk with balance, oppositional arm movements, and relatively narrow base of support (space between feet).
2.2 Run with short stride length and feet off the ground for a short period of time. May show inconsistent opposition of arms and legs.	2.2 Run with a longer stride length and each foot off the ground for a greater length of time. Opposition of arms and legs is more consistent.
2.3 Jump for height (up or down) and for distance with beginning competence.	2.3 Jump for height (up or down) and for distance with increasing competence. Uses arm swing to aid forward jump.
2.4 Begin to demonstrate a variety of locomotor skills, such as galloping, sliding, hopping, and leaping.	2.4 Demonstrate increasing ability and body coordination in a variety of locomotor skills, such as galloping, sliding, hopping, and leaping.

You can find example representations of the developmental sequences of fundamental movement skills in Appendix D.

Teachers can support children's developing locomotor skills with the following:

- Observe and analyze children's locomotor skills to facilitate planning for learning opportunities.
- Promote progressive development of leg strength.
- Promote and be aware of the progressive development of coordination of locomotor skills.
- Encourage practice of locomotor movements in both indoor and outdoor environments.
- Use vivid visual information and visual aids that communicate to children in simple ways how to move.
- Use music, songs, rhymes, and stories to provide rhythmic patterns.
- Plan meaningful, purposeful, and connected locomotor activities and games.
- Create picture cards representing different ways to move related to children's cultural background.
- Allow children to take risks in their physical play.

Manipulative Skills

Skills that allow children to use their arms, hands, legs, and feet to project an object away from the body (e.g., throwing a beanbag) or to receive and absorb the force of an object coming to the body (e.g., catching a balloon). Fundamental motor skills that involve large muscle groups are called gross motor skills (e.g., kicking) and the ones that involve small muscle groups are called fine motor skills (e.g., cutting).



Figure 13.5: Practicing cutting with scissors is a fine motor manipulative skill.[3]



Figure 13.6: Throwing this bean bag is gross motor manipulative skill. [4]

Fine motor manipulative skills are usually those in which children manipulate objects with their hands. Fine motor manipulative skills include cutting, painting, and buttoning.

Gross motor manipulative skills include tossing, rolling, throwing, catching, striking, kicking, bouncing, and punting with objects.

3.0 Manipulative Skills

At around 48 months of age	At around 60 months of age
3.1 Begin to show gross motor manipulative skills by using arms, hands, and feet, such as rolling a ball underhand, tossing underhand, bouncing, catching, striking, throwing overhand, and kicking.	3.1 Show gross motor manipulative skills by using arms, hands, and feet with increased coordination, such as rolling a ball underhand, tossing underhand, bouncing, catching, striking, throwing overhand, and kicking.
3.2 Begin to show fine motor manipulative skills using hands and arms such as in-hand manipulation, writing, cutting, and dressing.	3.2 Show increasing fine motor manipulative skills using hands and arms such as in-hand manipulation, writing, cutting, and dressing.

You can find example representations of the developmental sequences of manipulative skills in Appendix D.

Teachers can support developing manipulative skills with the following:

- Observe developmental sequences of fundamental manipulative skills.
- Vary the focus of the manipulative skills (provide opportunities for both arms and legs to move).
- Provide a variety of equipment to accommodate individual differences in body size, skill level, and the development of children's physical and sensory systems.
- Create manipulative activities that provide automatic feedback and a sense of accomplishment.[5]

Vignette

Children constructed birds and balls out of paper while playing indoors. They colored the papers using markers of different colors. Children also decorated their creations with colorful feathers and cut out shapes from magazines. They attached these decorations to their birds and balls with glue. When the decorations were dry, the teacher invited them to play with their birds and balls outside. The teacher, Ms. Gupta, previously had designed the outdoor play area by placing some colorful plastic hoops, cones, and shapes on the floor with pictures of the community buildings attached to them. She also drew a line two steps away from the pretend buildings.

Outside, she said to the children, "Let's make the birds fly toward those buildings and see where they land." The children became excited and began using the throwing action to fly their birds. Some children were much closer to the line, and others stood farther away. While throwing, they began adjusting their proximity to the line. Ms. Gupta said, "How can you move your bodies to make your bird fly up in the sky?" Jamila said, "I know, throw like this [moving her arm up and down]." Lesley said, "We need to step and send the bird up." Ms. Gupta paused and observed them throwing for a while. One child's bird was going down fast, and she said, "Xuyen, do you want your bird to go up?" Xuyen replied, "Yes." Ms. Gupta asked, "How can we do that?" Xuyen shrugged her shoulders as though to say, "I do not know."

Ms. Gupta then suggested, "How about if you throw it toward the sky?" Xuyen moved her arm up over her head in the throwing action, and her bird flew a little longer. She noticed and smiled, then ran to get it and tried again. Ms. Gupta smiled and said, "You moved your arm up this time. That is the way to make your bird go up: keep moving your arm up each time." Another child was picking up his bird, and Ms. Gupta said, "Yeng, on what building did your bird land?" Yeng said, "The

store.” and kept running back to try again. Ms. Gupta said to another child, “Mary, did your bird land in the hospital?” Mary replied, “No, that is the park.” Mary was right. Ms. Gupta continued asking different children about the buildings.[6]

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13.6: Supporting Perceptual-Motor Skills and Movement Concepts

Perceptual-motor skills and movement concepts are essential to all facets of young children's lives. Perceptual-motor coordination is the process of receiving, interpreting, and using information from all of the body's senses. Perceptual-motor development requires children to integrate both sensory and motor abilities to carry out physical activities. All voluntary movement involves an element of perception, and perceptual-motor coordination plays an important role in children's development of movement skills.

Movement concepts are the cognitive component of movement. Preschool children gain important knowledge about how the body can move in an almost endless variety of ways. For example, they learn to move at different speeds and with different degrees of force, in various pathways, around different types of obstacles, and in relation to other people. They are also acquiring new vocabulary (e.g., *zigzag*, *under*, or *behind*) that describe their movement experiences. Movement concepts enable children to problem-solve how the body should move during certain activities and situations. Movement concepts provide critical foundations for learning how to move in novel situations (e.g., when playing a new sport). To become proficient movers, children need to acquire both the movement skills and the movement concepts underlying those skills.

Children enter preschool with various experiences and abilities in perceptual-motor coordination and understanding of movement concepts. Children's growth in perceptual-motor skills and movement concepts leads to increased success and confidence when exploring, performing personal care, and playing cooperatively with others. Perceptual-motor skills and movement concepts are also key building blocks for future learning in areas such as reading, writing, and mathematics.

Perceptual-motor skills and understanding movement concepts includes body awareness, spatial awareness, and directional awareness.[1]

Body Awareness

Children's knowledge of their bodies becomes more accurate and specific. They develop a clear understanding of how body parts interrelate (e.g., the shoulder connects to the arm, which connects to the hand). Children are also learning to identify, describe, and differentiate an increasing number of body parts. Furthermore, they can demonstrate different ways to move specific body parts (e.g., the shoulder can move up and down, out to the side, or in a circular motion). Body awareness is necessary for coordinating physical movements when new skills are being learned, such as hopping or throwing. Accurate knowledge about body parts also enhances children's ability to care for their own bodies, such as during toileting, bathing, and dressing.



Figure 13.7: Caption: These children are acting out the song "Head, shoulders, knees, and toes." Some children have more developed body awareness.[2]

1.0 Body Awareness

At around 48 months of age	At around 60 months of age
1.1 Demonstrate knowledge of the names of body parts.	1.1 Demonstrate knowledge of an increasing number of body parts.

Teachers can support children's developing body awareness with the following:

- Use multisensory teaching strategies to reinforce children's learning.
- Use body-parts vocabulary in the child's home language.
- Use alternative communication methods, as appropriate, to teach body-parts vocabulary.
- Use body-parts vocabulary in the natural context of daily living activities and child-initiated play.
- Introduce body-parts vocabulary during structured group games.
- Engage children in singing and movement activities to teach body parts.

- Encourage children to identify and describe body parts in books or in pictures of themselves and family members.
- Provide opportunities for dress-up play.
- Provide opportunities for children to see external representations of their bodies.
- Provide constructional play for children to build or put together body parts.
- Ask children to describe their drawings of people.

Spatial Awareness

Children's understanding of their location and the location of objects and people around them. Preschool children are learning to judge how much space their bodies and other objects take up and whether something is "close" or "far." They are also developing vocabulary for describing the position of two objects relative to one another, such as whether a ball is "in front of" or "behind" them. Children gain awareness of their body dimensions and body position by physically exploring their world and by maneuvering around different obstacles (both people and objects) during play.



Figure 13.8: Jumping "over" the rope is helping this girl develop her spatial awareness.[3]

2.0 Spatial Awareness

At around 48 months of age	**At around 60 months of age**
2.1 Use own body as reference point when locating or relating to other people or objects in space.	2.1 Use own body, general space, and other people's space when locating or relating to other people or objects in space.

Table 13.1: Developmental Sequence of Spatial Awareness

Age	**Spatial Awareness Ability**
Around 3 years of age	Children bump into others who are close by during all types of activities.
Around 4 years of age	Children are able to participate in seated activities without bumping into others.
Around 5 years of age	Children are able to participate in standing activities (primarily staying in place) without bumping into others.
Around 5½ years of age	Children mostly maintain space around themselves without bumping into others, with prompting during a locomotor activity in which children move in the same direction
Around 6 years of age	Children maintain space around themselves without bumping into others during a locomotor or movement activity in which children move in different directions (e.g., chasing games or dancing

Teachers can support children's developing spatial awareness with the following:

- Set up obstacle courses
- Provide opportunities for children to experience moving at different levels of body positioning, ranging from high to low.
- Provide games for children to explore changing the size of their bodies.
- Play games that allow children to move around with objects balanced on different parts of their body.
- Provide pushing and pulling games with peers.
- Play games that require two to three children to work together to transport a large, lightweight object.
- Use dancing and musical games to promote the development of spatial awareness and body control.

- Use positional-concepts vocabulary within the natural context of daily routines.
- Have children participate in cleanup routines by putting away toys.
- Engage children in helper roles by performing “heavy work” activities.
- Narrate or ask questions about children’s play using positional-concepts vocabulary in English and the child’s home language.
- Engage children in songs and rhymes with body movements or spatial concepts.
- Reinforce spatial concepts when reading or looking at books.
- Use props or play objects to guide children in positioning their bodies.
- Use the child’s home language to introduce spatial-concepts vocabulary.
- Provide alternative ways for children with physical disabilities or other special needs to learn spatial concepts.
- Provide additional cues and assistance as needed to ensure safety for children who have spatial-awareness challenges.
- Allow opportunities for risk taking.

Directional Awareness

Children’s understanding of what it means and how it feels to move up, down, forward, backward and finally sideways. Most preschool children begin to understand that their bodies have two sides but cannot yet identify the left or right side of their body. Children are also learning to identify the top, bottom, front, or back of objects, but they do not clearly understand that objects have a left or right side. Preschool children also enjoy following pathways on the floor or creating their own movement pathways, such as straight, curved, or zigzag.



Figure 13.9: You can see children’s inability to understand left from right when acting out the “Hokey Pokey.”[4]

3.0 Directional Awareness

At around 48 months of age	**At around 60 months of age**
3.1 Distinguish movements that are up and down and to the side of the body (for example, understands “use that side, now the other side”).	3.1 Begin to understand and distinguish between the sides of the body.
3.2 Move forward and backward or up and down easily.	3.2 Can change directions quickly and accurately.
3.3 Can place an object on top of or under something with some accuracy.	3.3 Can plan an object or own body in front of, to the side, or behind something else with greater accuracy.
3.4 Use any two body parts together.	3.4 Demonstrate more precision and efficiency during two-handed fine motor activities.

Table 13.2: Developmental Sequence of Directional Awareness

Age	**Directional Awareness Ability**
Between ages 2 and 3 years	Children can identify front/back and top/bottom on their own bodies.
Around age 4	Children are aware that their bodies have two distinct sides and are learning to determine which side is left and which is right
By age 6 or 7	Children can accurately identify the left and right sides on their own body parts.
Around age 8	Children become aware that objects also have a left and right side

Age	Directional Awareness Ability
Ages 10 years and older	Children can give directions to another person, such as “Go down the hall and turn left to get to the school office.” They can accurately identify the left and right sides on another person, even if the person is facing a different direction.

Teachers can support children’s developing directional awareness with the following:

- Provide opportunities for child-initiated play in areas with open space.
- Provide safe environments in which children can climb up and down.
- Encourage children to move in different directions and in different types of pathways (e.g., straight, curved, or zigzag) during group movement games.
- Design activities for children to practice moving alongside or in a line with other people.
- Play games that require children to coordinate moving with others to manage a physical object or prop.
- Provide opportunities for children to move and use their bodies with force.
- Provide opportunities for children to move and use their bodies lightly.
- Engage children in two-handed play activities.
- Position drawing activities vertically.
- Provide pretend-play activities to rein-force directional concepts.
- Use the child’s home language for introducing directional-concepts vocabulary.
- Adapt movement experiences as needed for children with physical disabilities.
- Allow opportunities for risk taking.[5]

Vignette

Several children in Mr. Clay’s class are interested in trains, and during circle time they read a book about trains. Later that day, a group of children go through the obstacle course outdoors. Spencer asks, “I wonder if a train could go through our tunnel.” Ming responds, “Yeah, the train in the book went through mountain tunnels.” Mr. Clay suggests, “Well, maybe this obstacle course is a railroad today?” The children all agree excitedly.

Children begin to go through the obstacle pretending to be trains and saying “choo-choo” along the way. After awhile, Mr. Clay asks, “Do any of you trains want to carry freight?” “I do!” volunteers Mei enthusiastically. Mr. Clay retrieves a bucket of beanbags, which will be the trains’ freight. The teacher asks Mei, “Mei the Train, where will you carry your freight?” Mei replies, “here” while pointing to her shoulder. “On your shoulder? Great idea!” responds Mr. Clay. As children continue with the activity, Mr. Clay assists them in coming up with other variations, such as having everyone line up in a row and stay close together as one long train. When Ming gets to the cardboard tunnel, the teacher lifts up the cardboard box to provide clearance for Ming and his wheelchair to fit through the tunnel. Later, the teacher asks, “I wonder if it would be fun for the trains to go in reverse?” “What’s reverse?” Spencer asks. Ming responds, “I know! Watch this,” and demonstrates wheeling his wheelchair backwards.[6]

Pause to Reflect

Think of other movement activities children enjoy. How could each be modified to include children with differing disabilities and special needs?

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13.7: Supporting Activity Physical Play

Active play is essential to the optimal physical development and overall health of young children. Physical activity embedded throughout the preschool day promotes children's ability to attend to, learn, and regulate their emotional responses. Active physical play not only enhances the body's physiological functions (i.e., physical fitness), it promotes optimal brain chemistry for self-regulation and enhances learning readiness. As such, it should be fully integrated into the regular preschool day.



Figure 13.10: This young boy is engaged in unstructured active play.[1]



Figure 13.11: Completing an obstacle course is structured active play.[2]

Active physical play contributes markedly to enhancing children's fundamental movement skills in three principal areas: balance, locomotion, and both gross and fine motor manipulation. Both typically developing children and those with special needs benefit. Furthermore, the perceptual-motor components also discussed earlier are promoted through active physical play. Activities that promote body awareness, spatial awareness, and directional awareness engage the senses as children move through space. To derive the maximum health-related benefits, children should engage in active play on most days of the week, in an environment that promotes enjoyment, safety, and success. These benefits include increases in muscular strength, muscular endurance, and joint flexibility as well as improved aerobic endurance and body composition. Proper nutrition and adequate hydration also play important roles in young children's active physical play.

Young children can be easily engaged in movement and benefit immensely from an active way of life. The habits of physical activity that children learn in the early years greatly increase the chance that children will continue being physically active throughout childhood and beyond. Most importantly, children must see active play as fun. Your regular participation with children will do much to model the joy of moving. You can take almost any indoor or outdoor physical activity, give it a name, and make it a game. Children are active learners. For most, physical activity is fun. Your enthusiastic participation with children will go a long way to motivate them for continued active play.

Active Physical Play includes:

- Active Participation
- Cardiovascular Endurance
- Muscular Strength, Muscular Endurance, and Flexibility

Active Participation

Young children need to be involved in moderate to vigorous physical activity almost daily, at home and at school. Moderate to vigorous activity that is enjoyable, develop-mentally appropriate, and adapted to the needs of each child increases children's physical fitness levels. When the large muscles of the body are fully engaged, young children learn more effectively and also derive important health and physical fitness benefits. Active physical play contributes measurably to all aspects of physical fitness. Physical fitness is defined as a set of physical attributes related to a person's ability to perform activities that require cardiovascular endurance, muscular strength, muscular endurance, and joint flexibility.



Figure 13.12: Parachute play is a favorite of many children and a great way to get them actively participated.[3]

1.0 Active Participation

At around 48 months of age	At around 60 months of age
1.1 Initiate or engage in simple physical activities for a short to moderate period of time.	1.1 Initiate more complex physical activities for a sustained period of time.

Teachers can support active participation with the following:

- Provide ample opportunities for children to engage daily in active play. It is widely recommended that children accumulate at least 60 minutes and up to several hours of unstructured physical activity on each day of the week.
- Create inviting activity environments in which children can be physically active.
- Help children identify appropriate places for different types of physical activity.
- Create an activity environment that is nurturing and supportive and allows likely success.
- Encourage children to continue participation by providing opportunities for short but frequent rest periods during vigorous activity.
- Ensure that physical activity is sustained by providing personally mean-ingful and purposeful opportunities for children.
- Recognize and take into account any environmental constraints.
- Encourage physical exploration through play equipment and materials.
- Respect differences in children's temperament and find creative ways to engage all children in active physical play.

Research Highlight: Does Increasing Children's Physical Activity Really Make a Difference?

A decisive "yes" was the answer to this important question which was cited in a review of 850 research articles and published in the Journal of Pediatrics. The evidence strongly supported that children of school age who engage in relatively high levels of physical activity are less overweight than inactive children, have better cardiovascular endurance, and higher levels of muscular strength, endurance, and higher self-concepts. The authors conclude that "Increasing the level of habitual moderate-to vigorous-intensity physical activity in youth is a health promotion and disease-prevention strategy. Sedentary youngsters should progress toward the recommended level of physical activity gradually."[4]

Sources:

W. B. Strong and others, "Evidence Based Physical Activity for School-Age Youth," *The Journal of Pediatrics* 146, no. 6 (2005): 732–37.

A. Ignico, C. Richart, and V. Wayda, "The Effects of a Physical Activity Program on Children's Activity Level, Health-Related Fitness, and Health," *Early Childhood Development* 154 (1999): 31–39.

Cardiovascular Endurance

This involves exposing the body to an increased workload that raises the heart rate beyond its normal range of beats per minute and sustains that elevated rate for several minutes.



Figure 13.13: Pedaling a trike with a passenger is a great activity to get the heart pumping.[5]

2.0 Cardiovascular Endurance

At around 48 months of age	At around 60 months of age
2.1 Engage in frequent bursts of active play that involves the heart, the lungs, and the vascular system.	2.1 Engage in sustained active play of increasing intensity that involves the heart, the lungs, and the vascular system.

Teachers can support children's development of cardiovascular endurance with the following:

- Design the physical setting of the play environment to encourage moderate or vigorous physical activity.
- Engage children of all ability levels in activities that promote increased cardiovascular endurance.
- Promote increased cardiovascular endurance through chasing and fleeing activities.
- Promote cardiovascular endurance through the use of riding toys that require sustained pedaling or cranking.
- Use imagery as an effective tool in promoting moderate to vigorous physical activity.
- Provide positive encouragement for participation.
- Promote increased physical activity through story plays.
- Promote cardiovascular endurance through dance and rhythmic activities.

Muscular Strength, Muscular Endurance, and Flexibility

Active children naturally increase their muscular strength, muscular endurance, and joint flexibility.

Muscular strength is the ability to perform one maximum effort, such as lifting a heavy weight over-head, or picking up a heavy object off the ground.



Figure 13.14: Lifting these pumpkins onto the scale shows muscular strength.[6]

Muscular endurance is the ability to perform work repeatedly. (It is not recommended that children prior to puberty engage in maximum strength efforts through high-resistance activities. Instead, it is recommended that children engage in low-resistance activities with multiple repetitions.)

Flexibility is the ability of a joint to move through its full, intended range of motion.

3.0 Muscular Strength, Muscular Endurance, and Flexibility

At around 48 months of age	At around 60 months of age
2.1 Engage in active play activities that enhance leg and arm strength, muscular endurance, and flexibility.	2.1 Engage in increasing amounts of active play activities that enhance leg and arm strength, muscular endurance, and flexibility.

Keep this important concept in mind when planning activities for children. Low-resistance activities that are continually repetitive — such as swimming, riding a tricycle, or pushing one's wheelchair up a gradual incline or around the playground, walking distances, running, and jumping—will promote both muscular endurance and

Teachers can support children's developing muscular strength, muscular endurance, and flexibility with the following:

- Encourage the development of muscular strength and endurance through building activities that involve per-forming "work" repeatedly.
- Promote cardiovascular endurance through repeated muscular endurance activities.
- Promote muscular endurance and strength in the muscles of the upper body through the use of playground equipment that encourages climbing, hanging, and swinging.
- Allow for supervised risk taking.
- Engage children in the setup of the play space and the return of materials to their original space.
- Promote increased joint flexibility through animal walks, nursery rhymes, and story plays.
- Encourage practice in fundamental movement skills and perceptual-motor activities that contribute to children's physical fitness.[7]

Vignette

When the weather permits, Ms. Jennifer takes her class outdoors to play in the designated play space. She is intrigued by the many types of activities in which her children choose to engage. She is quick to notice that several are in almost perpetual motion, running to and fro with seemingly endless energy and little purpose to their activity. Others tend to gravitate to the sandbox and other fine motor activities. Still others are hesitant to explore and reluctant to participate in any self-initiated free-play activities.

Knowing the importance of active physical play, Ms. Jennifer develops strategies intended to maximize meaningful participation in a variety of activities that promote active participation by all, cardiovascular endurance, muscular strength, muscular endurance, and joint flexibility. These strategies take into account children's personal preferences, likes and dislikes, and sense of success and accomplishment.

Over several months of engaging in active play with children and encouraging them to try new things, she notices a decided change in behavior. The children are now more fully engaged in play activities that are purposeful, meaningful, safe, and fun. [8]

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13.8: Conclusion

Until recently, the physical development of young children was often taken for granted. Family members and caregivers had a tendency to assume that children, by virtue of being children, got plenty of physical activity as a normal part of their daily routine. The results of over a decade of research comparing the present, more sedentary generation of children to previous generations clearly reveals an alarming trend toward increased obesity, diabetes, asthma, and other health-impairing conditions.

Fortunately, a resurgence of interest in the vital importance of young children's physical development is taking place throughout California and the nation.

Those working with young children have recognized that developing fundamental movement skills; learning perceptual-motor skills and movement concepts, and engaging in active physical play are essential to the total balanced development of children. The development of fundamental movement skills provides a basis for an active way of life. Attaining proficiency in a myriad of fundamental balance, locomotor, and manipulative skills equips children for active participation in physical activities for a lifetime.

Perceptual-motor skills and basic movement concepts are important to the many time and space concepts that children acquire as they get ready for more formal types of instruction and learning. Body-awareness, spatial-awareness, and directional-awareness concepts can be taught and learned through both teacher-directed and self-directed play.



Figure 13.16: What types of physical development does playing at the water table support?[1]

However, children need encouragement, instruction, and sufficient opportunities for practice in supportive environments to learn fundamental movement skills, perceptual-motor skills, and movement concepts. Preschool programs and families play a critical role in maximizing children's development in these areas.

Active physical play in preschool is a means by which children (and adults) can engage in physical activities that promote healthy lifestyles and a genuine zest for life. Through active participation in self-directed and adult-facilitated play, children acquire increased cardiovascular endurance, muscular endurance, muscular strength, and flexibility. Young children have not only movement skills and perceptual abilities; they also have the joy of movement.

Learning to move and moving to learn are too important to be left to chance. Parents and teachers have a precious opportunity to help set the stage for young children to enjoy physical activity for a lifetime.[2]

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13.9: Engaging Families

Teachers need to develop some patterns for continuous communication with parents and caregivers. Families are an important force in children's lives and in the physical activities children engage in. Some people believe that fundamental movement skills are only used outdoors. Although the outdoor environment offers a series of appealing possibilities, such as open space and the chance to use all-out force, indoor spaces also offer an array of opportunities for continued practice of the fundamental movement skills.

Here are some ideas for engaging families in supporting children's physical development.

- Create a newsletter to be given to families periodically. Photos of their children, pictures, and documents in the family's home language about what their children are learning about fundamental movement skills can be included. This may require translation; however, the connection with the families is worth the effort. Provide some stories and pictures of children in action
- Provide suggestions for activities that will support children's continuous fundamental motor skill development. Be specific about how. For instance, suggest families that when they go to the park, they can ask their child to show a balance position or a balance movement they learned at preschool, demonstrate a favorite way to move fast or slow, or show how he or she plays with balls.
- Ask families about the kind of balance, locomotor, and manipulative activities they did when they were young children. They can write them down or verbally communicate with the teachers and their children. This information can be incorporated into future activities and open a door of communication to discuss physical development in the past and in the present.
- Talk about the importance of physical development for both boys and girls and how gender issues may affect children. Girls already receive encouragement for manipulative skills, as do boys for locomotor skills. These reflections and conversations can bring opportunities to close this gap and explain to parents the importance of physical activity in today's society.
- Encourage families to ask their children about the movement skills the children are learning at their preschool.



Figure 13.15: Hosting a play event for families is one way to get families involved in their children's physical development.[1]

- Inform families about the importance of having their children wear comfortable clothes and shoes so they can move easily and freely during physical development activities.
- Ask children to show their families the movements they are learning at their preschool.
- Have a family "Show and Tell Day" where children show and tell families their favorite fundamental movement skills.
- Ask children to identify the movement skills of the athletes in sport games family members are watching and then demonstrate those skills. This is a way to engage family members' interest in their child's fundamental movement skills development.
- Suggest ways for children to help around the home and at the same time practice their fundamental movement skills. Examples include matching and rolling their socks and tossing them from a short distance into the laundry basket or drawer. Helping to unpack groceries and placing them on shelves provides children with an activity to develop manipulative skills and strengthen their hands. Families can create a safe obstacle course in their homes where children can move under and over furniture by using locomotor skills.
- Encourage families to provide time for children to perform independent daily living activities, such as brushing teeth or getting dressed. Children need time to manipulate objects such as toothpaste caps, zippers on their clothing, and lids of food containers.
- Encourage families to take their children outside to safe, open spaces and play areas where they can use fundamental movement skills.
- Encourage children to use words or signs to identify or describe their body parts when they are completing personal-care activities such as getting dressed or bathing.
- Provide opportunities for children to interact with adults and help around the home with activities such as putting away their toys, putting away groceries, sorting laundry, or bringing dirty dishes to the kitchen.

- When out in the community, such as at the park or grocery store, communicate with children about objects in the environment. Encourage them to describe where trees, buildings, cars, and other objects are located in relation to one another.
- When looking at books or pictures together, talk about how the characters are positioned and how they are moving their bodies.
- When children are playing, ask them to describe what they are doing with their bodies.
- Create an “Activity Recall Chart” to be used in the classroom first, then at home. Have children recall and categorize their activity into **S**edentary, **M**oderate, and **V**igorous.
- Have a “Family Dance Party.”
- Model healthy behavior.
- Take an adventure walk to school.
- Develop a list of “can do” family rules for active physical play.
- Take part in family rough-and-tumble play that respects the rights and wishes of all.
- Proper clothing for indoor and out-door family activities is a must.
- Make a FITT activity chart. **F**requency (how often per week), **I**ntensity (how hard one plays), **T**ype (of activity), and **T**ime (length of activity). Have all family members decide what they want to do. Mark off what they do throughout the week and review at the end of the week.[2]

Pause to Reflect

What ways to encourage the practice of fundamental movement skills at home would you most want to share with parents? How might you share these ideas with them?

References

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CHAPTER OVERVIEW

14: Health and Safety

Learning Objectives

By the end of the chapter, you should be able to: Explain the importance of planning to support children's physical development

- Describe the foundations in physical development that high quality programming support children in reaching
- Recognize sequences of physical development
- Advocate for active play
- Identify ways for educators to support physical development
- Summarize ways to engage families in curriculum for physical development

One way to foster healthy lifestyles is to encourage the development of health-promoting habits during early childhood. Preschool education about health can begin a lifelong process of learning about oneself, relationships to others, and the world. Preschool children's experiences with their health and ways to improve it, both at home and in the early childhood setting, enhance their desire and ability to make healthy decisions throughout their lives.



Figure 14.1: Positive experiences relating to dental health are valuable. Image by the California Department of Education is used with permission

The preschool health foundations describe the health knowledge, attitudes, habits, and behaviors that set the groundwork for all preschool children to develop into healthy adults. They explain what children should know about health, and what health habits and practices should be part of their daily routines when they are provided with high-quality health education in preschool. These skills and behaviors set young children on the path toward health and healthy lifestyle choices. [2]

14.1: Guiding Principles in Supporting Children's Health, Safety, and Nutrition

14.2: Environmental Factors in Supporting Children's Health, Safety, and Nutrition

14.3: Introducing the Foundations

14.4: Conclusion

14.5: Continuing the Cycle

References

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14.1: Guiding Principles in Supporting Children's Health, Safety, and Nutrition

An integrated and comprehensive approach is most effective when preschool children are taught about health. Health education does not stand alone in the preschool curriculum. It is integrated with the other domains. Health is comprehensive. Health education involves ideas directly relevant to the child, such as "How do I grow?" Preschool teachers work with children who are naturally curious and eager to learn about their bodies and how each part works. A developmentally appropriate curriculum promotes overall health (e.g., wellness, safety, oral health, nutrition) and integrates topic areas. For example, a discussion about safety rules might include nutrition and sanitation.



Figure 14.2: Children can explore their understanding of health through dramatic play.[1]

Teachers address ideas and concepts that children can grasp at their developmental level and then progressively build on what children already know and understand. This approach applies to all children, including children with various abilities, disabilities, or other special needs (such as delays in language, cognition, or physical ability).

- Health knowledge is individualized.
- Preschool children and their families possess diverse backgrounds and cultural practices.
- Learning about health practices has a language component.
- Children's personal health status (i.e., physical, mental, emotional) affects their ability to learn and develop in all domains.
- The overall theme of health education for preschool is personal health.
- Children learn through their experiences, including play, routines and scripts, modeling, and developing and sustaining relationships at preschool. This learning is supported through adult scaffolding.
- Practicing scripts, or behavioral rules, can foster the development of certain health-promoting behaviors or skills.
- The preschool program provides both indoor and outdoor environments that are safe and appropriate, challenging, and inviting for all children.
- Teachers help children feel secure by assuring them that there are adults who will take care of them (e.g., parents, family members, teachers, health care providers, special needs assistants).[2]

References

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[2] The California Preschool Curriculum Framework, Volume 2 by the California Department of Education is used with permission

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14.2: Environmental Factors in Supporting Children's Health, Safety, and Nutrition

Children learn most effectively in a safe, inviting environment in which they can freely explore and challenge themselves. Health and safety in the preschool program, both indoors and outdoors, includes environment, supervision, and education. Environment is the first component of safety; a safe environment allows children to explore, play, and learn without unnecessary restriction. The environment should be set up and maintained to reduce the risk of injury and disease transmission.

Proper supervision of children is essential, and the required adult-to-child ratios must be met at all times, including periods when children play outdoors, are transported, and go on field trips. The most effective supervision includes active involvement with children's learning: teachers move around the room with children, attend to children and their interactions, make eye contact, encourage children verbally, and model appropriate voice and actions.

Education is multifaceted. Teachers promote children's learning through discussion, modeling, and daily routines through active participation. An accessible and supportive environment with appropriate facilities and items allows children to practice and demonstrate progress in learning.

The following recommendations apply to establishing the preschool environment that supports children's health, safety, and nutrition.

- Establish a physical learning environment designed for children's initiative.
- Provide safe, inviting learning environments, and appropriate supervision of children.
- Maintain a clean, healthy, and sanitary environment. Incorporate cleaning and sanitizing into the daily routine.
- Have supplies available and accessible to promote routine health practices.
- Provide stimulating and developmentally appropriate materials in interest areas for children's use during play.
- Provide furnishing and utensils appropriate for children's size and abilities.
- Be creative and include a gardening space, either indoors or outdoors, where children can plant seeds, tend the garden, and watch the plants grow.[1]

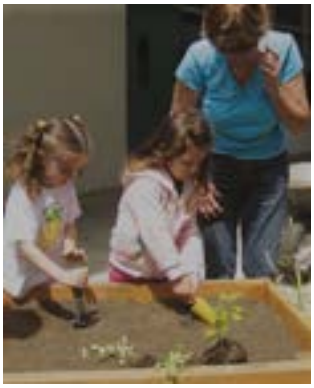

Figure 14.3: A classroom garden is an excellent way to involve children and provide good nutrition.[2]

Pause to Reflect

What are practices that teachers should engage in and ways to design the environment that support the health, safety, and nutrition of all children (including those from diverse backgrounds and those with special needs or disabilities)?

Research Highlight

Cleaning and disinfecting is essential. Studies have shown that some germs, including influenza virus, can survive on surfaces for two to eight hours; rotavirus can survive up to 10 days. Cleaning with soap and water removes visible soil. After cleaning, disinfection (sanitizing) kills bacteria, viruses, and fungi (i.e., "germs"). The Centers for Disease Control and Prevention (CDC) states that a bleach and water solution of one tablespoon household bleach to one quart water is effective. Wet the surface with the solution and allow to air dry. Mix fresh bleach solution each day to maintain effectiveness, and store in a clearly labeled spray bottle out of children's reach. Research shows that other chemicals (e.g., ammonia, vinegar, baking soda, Borax) are not effective against some bacteria.[3]

Source:

> W. Rutala and D. Weber, *Guidelines for Disinfection and Sterilization of Healthcare Facilities, 2008.*

References

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14.3: Introducing the Foundations

The preschool learning foundations for safety, health, and nutrition are organized into three broad categories, or strands:

- Health Habits
- Safety
- Nutrition

These describe the health knowledge, skills, and behaviors that preschool children typically develop in a quality preschool environment. Through supportive communication and participation in everyday routines and activities, children begin to develop behaviors such as making food choices, engaging in physical activity, and maintaining personal safety and oral health. These skills and behaviors set young children on the path toward health and healthy lifestyle choices. The specific foundations are included later in the chapter as each strand is explored.

They represent a vision of young children's developmental process, not an expectation. Each child enters preschool with a genetic background, developmental characteristics, an individual level of knowledge and skills, and understanding of everyday routines. The differences are based not only on the child's age, but also on the child's developmental level, prior experiences, and special needs. It is the responsibility of adults to help each child to develop the knowledge, skills, and behavior that promote healthy development.[1]

Supporting Health Habits

Teachers can help children establish positive health habits. This learning is progressive, and preschool teaching often focuses on scripts and routines for prevention of disease and injury. Later, as children grow and develop knowledge and skills, they begin to believe and understand that they are responsible for their own health.



Figure 14.4: Learning to brush your teeth well is an important lifelong skill to protect dental health.[2]

Health Habits includes basic hygiene, oral health, knowledge of wellness, and sun safety.

1.0 Basic Hygiene

At around 48 months of age	At around 60 months of age
1.1 Demonstrate knowledge of some steps in the handwashing routine.	1.1 Demonstrate knowledge of more steps in the handwashing routine.
1.2 Practice health habits that prevent infectious diseases and infestations (such as lice) when appropriate, with adult support, instruction, and modeling.	1.2 Begin to independently practice health habits that prevent infectious disease and infestations (such as lice) when appropriate, with less adult support, instruction, and modeling.

2.0 Oral Health

At around 48 months of age	At around 60 months of age
2.1 Demonstrate knowledge of some steps of the routine for brushing teeth, with adult supervision and instruction.	2.1 Demonstrate knowledge of more steps of the routine for brushing and when toothbrushing should be done, with less adult supervision.

3.0 Knowledge of Wellness

At around 48 months of age	At around 60 months of age

At around 48 months of age	At around 60 months of age
3.1 Identify a few internal body parts (most commonly the bones, brain, and heart) but may not understand their basic function.	3.1 Identify several different internal body parts and demonstrate a basic, limited knowledge of some functions.
3.2 Begin to understand that healthcare providers try to keep people well and help them when they are not well.	3.2 Demonstrate greater understanding that health-care providers try to keep people well and help them when they are not well.
3.3 Communicate to an adult about not feeling well, feeling uncomfortable, or about a special health need, with varying specificity and reliability.	3.3 Communicate to an adult about not feeling well, feeling uncomfortable, or about a special health need, with more specificity and reliability.

4.0 Sun Safety

At around 48 months of age	At around 60 months of age
4.1 Begin to practice sun-safe actions, with adult support and guidance.	4.1 Practice sun-safe actions with decreasing adult support and guidance.

Teacher-guided activities on health habits may be used to introduce or focus attention on a specific topic or concept. However, learning is primarily achieved through children's daily routines (e.g., washing hands at certain times, brushing teeth after meals) and verbal or nonverbal scripts that illustrate the desired lifelong behavior (e.g., using tissue when blowing the nose, coughing into elbows). Children demonstrate knowledge of body parts, disease prevention, and wellness as they practice routines and develop descriptive scripts (e.g., "We wash our hands, fingers, and wrists"; "I'm going to brush my teeth and tongue"); they begin to understand more difficult concepts through scaffolding.

Teachers can support children's development of the Health Habits foundations with the following:

- Teach children how to wash their hands.
- Practice toothbrushing skills.
- Model basic hygiene and disease prevention actions throughout the day (including issue tissue to blow nose, sneezing and coughing into their elbows, using napkins, brushing teeth, using utensils to serve foods, etc.).
- Remind children about health practices throughout the day. Include strategically placed visual reminders throughout the environment.
- Incorporate handwashing, toothbrushing, sun safety, and other health practices in the daily routine.
- Use visuals aids to demonstrate invisible germs.
- Reinforce learning with stories and music.
- Observe individual children attentively. Learn what experiences, knowledge, skills, and abilities each child has to determine where they are at in the learning process.
- Build communication and vocabulary skills. Use children's home languages. Tell them stories and have them draw stories about health routines (such as visiting the dentist). Introduce words that apply to different topics of safety (such as protect).
- Encourage pretend play, especially to work through their fears. Provide special interest areas (doctor's office, dentist office, eye doctor's office, etc.) with props for role playing.
- Provide hats and look at how each might protect children from the sun. Encourage children to dramatize protecting baby dolls from the sun.
- Encourage children to explore and accept differences. Children recognize physical differences and the different health practices, meal setups and food choices, and safety considerations.
- Use correct terminology for body parts in both English and children's home languages.



Figure 14.5: Proper handwashing is one of the most effective ways of staying healthy.[3]

- Familiarize children with health helpers (lab technicians, nutritionists, dentists, eye doctors) and include others that may be utilized by their families (chiropractors, acupuncturists, midwives, etc.).
- Consider offering health screenings for children to develop familiarity with health helpers.
- Integrate health promotion and sun safety with other topics and domains.
- Provide visual representations of health helpers (ensure that you show both male and females, various ethnicities, and various ages of people).
- Enhance children's knowledge and understanding through problem solving (whichealth helper would provide assistance for different situations.
- Model and share information each day about practices (such as applying first aid for an injury) that support health.
- Integrate sun safety with emergency preparedness and safety.
- Encourage decision making. Have children protect themselves from the sun.
- Promote sun safety everywhere, every day, all year long for each and every child.
- Ensure that children have access to appropriate sun safety items.[4]

Vignettes

The children are playing indoors when Miss Marie reminds them that it is time to prepare for lunch. She begins to sing a handwashing song as children leave their interest areas. Some of the children begin singing as they wash their hands. The song follows the familiar "Row, Row, Row Your Boat" tune, and the children enjoy singing it in both English and Spanish.

English:

Wash, wash, wash my hands

Make them nice and clean

Rub the bottoms and the tops

And fingers in between

Spanish:

Lava, Lava, Lava mis manos

Lavalas muy limpias

Lavalas de arriba y abajo y

Entre mis dedos de las manos

The children have learned that if they sing the song two times while washing their hands, then their hands should be clean! Miss Marie sings along with the children as she observes the handwashing process. She helps Tonya, who has a hearing impairment, by clapping along with the song; Tonya can look in the mirror above the sink to see when the song (clapping) ends. The younger children sometimes need help in dispensing the soap and turning the water on and off; the older children enjoy helping the younger ones and like to model their handwashing skills.

Mr. Jeff is putting sunscreen on four preschoolers. “Mr. Jeff, why do we have to put this sticky stuff on every day?” asks Mary. As he removes his gloves and puts away the sunscreen bottle, he explains, “The sun is good for us. It gives us light and warmth. But too much sun is not good for your skin. We put on the sunscreen to protect our skin from too much sun.” Javier says, “I don’t burn. I don’t need this.” Mr. Jeff replies, “Everyone needs to be sun-safe.” Mr. Jeff encourages the children to run, jump, and try new activities as they play outdoors.[5]

Pause to Reflect

What do you remember from your own childhood about learning how to take care of your health (handwashing, tooth brushing, first aid, sun safety, etc.)? What roles did the adults in your life play in those experiences?

Supporting Safety

Preschool children deserve to live and play in safe environments. It is the adult’s responsibility to keep children safe; children should not be expected to actively protect themselves. Preschool safety education helps children develop safety awareness and the realization that they can control some aspects of their safety through certain actions.

The earlier children learn about safety, the more naturally they will develop the attitudes and respect that lead to lifelong patterns of safe behavior. Safety education involves teaching safe actions while helping children understand possible consequences of unsafe behavior.



Figure 14.6: Children can be taught safety rules that give them an active role in keeping themselves safe.[6]

This section on safety addresses children’s ability to follow safety rules, emergency routines, and transportation and pedestrian safety rules.

Safety

1.0 Injury Prevention

At around 48 months of age	At around 60 months of age
1.1 Follow safety rules with adult support and prompting.	1.1 Follow safety rules more independently though may still need adult support and prompting.
1.2 Begin to show ability to follow emergency routines after instruction and practice (for example, a fire drill or earthquake drill).	1.2 Demonstrate increased ability to follow emergency routines after instruction and practice.
1.3 Show beginning ability to follow transportation and pedestrian safety rules with adult instruction and supervision.	1.3 Show increased ability to follow transportation and pedestrian safety rules with adult support and supervision.

Teachers can support children’s development of the Safety foundations with the following:

- Incorporate safety activities into the daily routine.
- Involve children in creating rules. Limit the number of rules and keep them simple.
- Provide coaching and gentle reminders to help children follow safety rules. Use visuals with pictures and simple words in English and home languages.
- Promote independence while developing other skills.

- Provide time for children to practice individual skills (rather than just telling them about them).
- Introduce concepts and behaviors in simple steps. Build upon previous learning.
- Role-play safety helpers. Recognize that levels of trust with emergency and safety workers will vary from child to child based on their experiences and the environment they live in.
- Take field trips and bring in safety helpers (police officers, firefighters, crossing guards, paramedics, and others).
- Define emergency and have children practice problem solving with different emergency situations.
- Introduce safety signs. Help children learn to recognize important symbols (and their corresponding printed words).
- Incorporate music with safety songs. Children can learn to state their name and address with the help of a simple song.[7]



Figure 14:7: Explaining to children why it's important to be buckled in helps them understand safety.[8]

Vignette

Ms. Linda is preparing her preschoolers for the first fire drill of the year. She has read several books about fire safety to the children. The class enjoyed a visit from Deloria's mother, who is a firefighter. The children are excited about their first fire drill, but they are not sure what to expect. Ms. Linda plays a tape of the school fire alarm and explains that the real warning alarm will be very loud. The fire alarm means everyone must leave the building.

"Now we are going to practice listening and preparing to leave the classroom," says Ms. Linda. "It will be like playing Follow the Leader, and I will be the leader." The children are eager to try this new experience, and it is difficult for them to listen quietly. Several of the children are learning English so Ms. Linda uses words in the other languages of the children, as well as English, to focus their attention and explain the steps. Prior to this practice, Ms. Linda presented a list of key words and phrases to parents who speak languages other than English and obtained the relevant translations. She combines words and hand signals to direct the children. Ms. Linda explains that she will assist Juan, who is in a wheelchair, during the fire drill.

Ms. Linda demonstrates what to do when the alarm sounds (e.g., stand up, stay quiet) before the children practice. They practice this routine each day that week so they will be ready for the actual drill on Friday.[9]

Research Highlight

Unintentional injury is the leading cause of death of children ages fourteen and under. Motor vehicle injuries are the leading cause of death among children in the United States; each year more than 200,000 children are treated in emergency departments for play-ground-related injuries; children ages four years and younger are susceptible to residential fire deaths and injuries; and children under age six years are more likely to experience unintentional poisoning. The good news is that the number of deaths caused by unintentional injuries to children has dropped in recent years; from 1987 to 2004, there was a 43 percent decrease.

Death rates among California children ages one to four years declined slightly from 2000 to 2005; however, the death rates for young children remained significantly higher than the target established in *Healthy People 2010.*

Child injury prevention efforts continue throughout the United States. For example, all 50 states and the District of Columbia have child restraint laws; and 21 states, the District of Columbia, and over 140 localities have enacted some form of mandatory child bicycle helmet legislation. In addition, all national and regional code-making bodies have amended their plumbing-code language to require anti-scald technology and a maximum water heater temperature of 120 degrees Fahrenheit in all newly constructed residential units.

The state of California has been a leader in advocating child safety. It has enacted laws requiring the use of bike helmets, personal flotation devices, and child safety seats; prohibiting adults from leaving children alone in motor vehicles; and

imposing criminal liability on adults who allow children to have access to loaded firearms.[10]

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Pause to Reflect

Some children find learning about safety to be frightening. What should you keep in mind to help children deal with their fears surrounding staying safe?

Supporting Nutrition

Lifelong eating habits are shaped during a child's early years. Teachers of young children have a special opportunity to help children establish a healthy relationship with food and lay the foundation for sound eating habits. Nutrition education and activities help set children on the path to a healthful lifestyle. Providing nutritionally balanced meals and snacks and integrating nutrition education and healthy eating habits in the home and early childhood environment can help prevent health risks such as childhood obesity.

Nutrition education is integrated with the other domains of learning. Through food and cooking activities, children also develop skills in math, science, art, language and literacy, social science, health and self-care, and social skills. Nutrition education for preschoolers fosters children's awareness of different types of foods and promotes exploration and inquiry of food choices. Lifelong habits with foods are developed during early childhood. Through nutrition education in preschool, teachers encourage children to include a wide variety of foods that provide adequate nutrients in their daily diet.



Figure 14.8: Providing nutrient dense foods, such as fruit and milk, for children is important.[11]

Nutrition includes: nutrition knowledge, nutrition choices, and self-regulation of eating. Through knowledge, children become aware of different foods and tastes, some of which are familiar and others that are new. As they explore various foods and food preparations, they develop likes and dislikes and begin to make choices based on preference. Both nutrition choices and self-regulation of eating—that is, eating when hungry, chewing food thoroughly, eating slowly, and stopping when full— involve decision-making skills.

Nutrition

1.0 Nutrition Knowledge

At around 48 months of age	At around 60 months of age

At around 48 months of age	At around 60 months of age
1.1 Identify different kinds of foods.	1.1 Identify a larger variety of foods and may know some of the related food groups.

2.0 Nutrition Choices

At around 48 months of age	At around 60 months of age
2.1 Demonstrate a beginning understanding that eating a variety of food helps the body grow and be healthy, and choose from a variety of foods at mealtimes.	2.1 Demonstrate greater understanding that eating a variety of food helps the body grow and be healthy, and choose from a greater variety of foods at mealtimes.
2.2 Indicate food preferences that reflect familial and cultural practices.	2.2 Indicate food preference based on familial and cultural practices and on some knowledge of healthy choices.

3.0 Self-Regulation of Eating

At around 48 months of age	At around 60 months of age
3.1 Indicate awareness of own hunger and fullness.	3.1 Indicate greater awareness of own hunger and fullness.

Teachers can support children's development of the Nutrition foundations with the following:

- Introduce many different foods. This can be done through books, meals and snacks, and cooking activities. Include familiar and novel foods and foods from the various cultural backgrounds of the children and their families.
- Recognize and accommodate differences in eating habits and food choices. Provide explanations for differences (e.g., eating from communal dishes, feeding tubes, avoiding certain foods, etc.) by having a family member or specialist come in to explain.
- Provide opportunities and encouragement in food exploration. Encourage children to explore with all five senses.
- Integrate nutrition with the other areas of learning through cooking activities.
- Show children where food is produced. Expand nutrition education through field trips to gardens, farms, orchards, local produce markets, kitchens, restaurants, grocery stores, etc. and bring in visiting experts (e.g., farmers, food co-op members, community gardeners).
- Start a garden in which the children actively work. Allow them to plant, water, and care for the garden.
- Help children experience gardening as they raise herbs, fruits, or vegetables.
- Establish special interest areas for children to engage in dramatic play (e.g., grocery stores, restaurants, picnics, etc.).
- Encourage role playing by providing props including: place mats, tablecloths, table-setting items, pretend food items, cooking utensils, menus, and other items that represent the children's families.
- Integrate nutrition education with basic hygiene education (e.g., washing hands before and after preparing food) and other learning areas (e.g., singing songs and discussions).
- Model and coach children's behaviors. Each what the children are being served.
- Encourage children to share information about family meals. Explore cultural diversity and how children's families eat at home.



Figure 14.9: Healthy food, served family style sets the stage for great nutrition.[12]

- Serve snacks and meals family style. Adults and children eat together, share the same food, and talk with each other informally.
- Encourage tasting all foods, but don't compel them to taste or eat certain foods.
- Serve foods prepared in many ways (e.g., raw, grilled, steamed, cut in shapes, shredded,).
- Combine new foods with familiar ones.

- Be aware of individual food restrictions and help children make appropriate choices.
- Offer a variety of nutritious, appetizing foods in small portions.
- Encourage children to chew their food well and eat slowly.
- Teach children to recognize signs of hunger. Encourage children to decide how much to eat and to stop when they feel full.
- Discuss how the body uses food.
- Reinforce learning throughout the day (not just at meal and snack times).[13]

Vignettes

Ms. Tsikudo has invited Ava's mother, Zhiying, to tell the class about Taiwan. Zhiying was born and grew up in Taiwan. Zhiying has brought many family photos, as well as photos of the beautiful scenery of Taiwan. After showing the photos and taking questions from children, she shares with children a large durian and a few star fruits, fruits that people in Taiwan like to eat. Ms. Tsikudo helps to carry the durian on a plate and moves around the class to ask children to touch it. "How does the skin feel?" "Bumpy!" Children reply with excitement. Meanwhile, Zhiying has sliced the star fruits and starts to pass them around. "What do the pieces look like?" she asks. "Stars!" reply the children. Ms. Tsikudo picks up one slice of star fruit, puts it into her mouth, and says "I have never had star fruit before. Yum! I like the taste of this fruit. Who wants to try?" Some children raise their hands to try the fruit.

"I don't like that." Every day at lunch for the past three weeks, Amy said the same thing. She would eat the meat and fruit but would not taste any vegetables or bread. Mr. Rios asked Mrs. Gardner, Amy's grandmother, "What does Amy like to eat at home?" Mrs. Gardner replied, "She has never eaten very much at one time, and now all she wants is mashed potatoes. She looks healthy, but I'm worried about her."

Mr. Rios continued to observe Amy's eating habits and encouraged her to try other foods. As the children served their plates, he asked them about the different colors and smells. Using small serving utensils, he encouraged each child to take a small amount. If a child said he did not want it, Mr. Rios assured him that he did not have to eat it but gently encouraged him to put a tiny bit on his plate.

As Mr. Rios planned learning activities for the following weeks, he included a cooking activity along with snack time two days each week. He involved children's families by asking them to send ideas or simple recipes for favorite snack foods. Through these activities, the children were introduced to different foods, some new and some familiar, and various methods of food preparation (e.g., cooked versus raw, single food versus combined foods).[14]

Research Highlight

Fear of new foods is common in children. It may take many tries before a child will taste a new food and up to 20 exposures before a child decides he likes or truly dislikes a food. Food jags (when a child will eat only one food item meal after meal) are also common. Food jags rarely last long enough to cause harm. Children's eating habits are a way for them to feel independent. They reflect typical development in children.

Some children have disabilities or other issues that affect their decisions about foods. Children with autism often have very limited food preferences; some children may have sensory issues and avoid specific textures or food items. Other children may not like it when different types of foods touch each other on the plate or may wish to eat foods in a particular order. Be aware of differences in children's preferences and eating habits, and consult with the child's family and specialist to ensure that needs are met.[15]

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Pause to Reflect

How are your own eating habits and nutritional practices? Why is it important for you to reflect on this?

Engaging Families

Teachers can use the following strategies to help families to develop their children's health habits:

- Provide families with concise, accurate information about ways to promote and develop good health habits in children. Information should be presented in English and home languages.
- Share written and visual safety messages with families through newsletters, brochures, and bulletin boards, web pages, and take home activities in English and home languages. Emphasize safety issues that relate to your program and community.
- Provide individualized information as well as general health information to all families. Provide safety information, especially those that involve higher risk in specific communities (e.g., water safety, gun safety, or lead poisoning). Use daily contact, workshops, and parent meetings to share information. Make sure workshops and meetings are offered at a variety of times and provide child care.
- During family conferences, find out what messages family members would like reinforced at school. Safety rules and supervision may differ at home.
- Post emergency plans on family bulletin boards and provide families a written copy of the program's emergency plans.
- Encourage families to plan and practice emergency drills for fires, earthquakes, floods, violent encounters, or other emergency situations that might occur in their homes and communities.
- As you introduce health routines (e.g., handwashing and toothbrushing), invite family members to participate and model.
- Encourage families to contribute ideas or materials to interest areas that reflect diverse health habits at home.
- Invite family members to help children learn about people who can help in emergency situations (firefighters, paramedics, construction workers, electricians, meteorologists, cleaning businesses, etc.)
- Be sensitive and respectful of different values or beliefs, as well as varying levels of access to health products and services.
- Gather information on available and accessible health, safety, and nutrition resources in the community, including those for children with special needs, and provide this information to all families, translated into their home languages.
- Provide families with weekly or monthly menus in their home languages.
- Recognize families have the most information about their children's food preference, serving styles, and restrictions in eating habits.
- Offer workshops and information on nutritious and economical meals based on the families' cultural, ethnic, and personal food preferences.
- Encourage families to use available community resources for meal planning.
- Provide lists of foods or simple recipes for a variety of foods that are nutrient-dense, low fat, sodium, and sugar, and look and taste great. Include foods that reflect cultural preferences and are available locally.
- Encourage families to involve children in food preparation.
- Invite families to share their favorite family recipes.
- Invite families to visit the classroom and to sit with children during mealtimes and participate in nutrition related activities.
- Include families in planning the menu and meal-service routines.
- Provide information to all families on nutrition, child growth and development, nutrition risk factors, and community resources.
- Encourage families to ask questions and provide information about their children's eating habits or nutritional concerns.[16]



Figure 14.10: Information can be shared with parents formally, like in this workshop, or more informally.[17]

Pause to Reflect

Hygiene and nutrition are very much influenced by culture. What do educators need to remember when working with families whose culture relating to these things might be very different than their own?

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14.4: Conclusion

The early years of children's lives are crucial to the development of behaviors that contribute to good health, and early childhood teachers can significantly enhance opportunities for young children to learn about health by providing appropriate experiences. Many adult chronic diseases and conditions, such as obesity, diabetes, and heart disease, are related to lifestyle choices about nutrition and fitness and often begin in childhood.



Figure 14.11: Staying active is another way to promote health and wellness.[1]

A respectful and integrated approach that meshes home and preschool environments and involves responsible adults can help children initiate a lifelong process of learning about themselves, their relationships to others, and the world around them. Health education is an essential part of the curriculum for young children. The topic of health is incorporated into daily routines and the environment; it is also the focus of planned learning activities. Early child-hood educators have the challenge of modeling a healthy lifestyle for the children they teach—one that will benefit both themselves and the children.[2]

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14.5: Continuing the Cycle

As curriculum is implemented teachers must continue to observe and reflect on what those observations mean. It is important for programs to support the experimental nature of curriculum planning for infants and toddlers. Even plans that do not work out are learning opportunities for both the children and the teachers.

Teachers must use the information they have gathered about the infants and toddlers to create a rich learning environment for each child and the group as a whole. In doing so, it's imperative that they trust the children to teach themselves by exploring that environment and one another. This is done through respectful interactions that support curiosity, exploration, and integrations of new knowledge.[1]

References

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CHAPTER OVERVIEW

15: What Curriculum Looks Like for Infants and Toddlers

Learning Objectives

By the end of the chapter, you should be able to:

- Distinguish how curriculum planning for infants and toddlers is unique from planning for older children
- Describe typical infant and toddler development
- Explain how relationships are the basis for learning and development during infancy and toddlerhood
- Discuss the overarching principles of planning curriculum for infants and toddlers
- Connect how infants and toddlers learn to specific ways caregivers and teachers can facilitate that process
- Relate the role of observation in curriculum planning for infants and toddlers
- Summarize how to support the foundations in social-emotional development, language development, cognitive development, and perception and motor development during infancy and toddlerhood

A majority of this book is focused mostly on children aged 3 to 5 years. But, it is important to note how curriculum for the youngest children is a bit different. While the content in this chapter could, and often is, the focus on an entire class, this chapter will highlight some important considerations when planning and implementing curriculum with infants and toddlers.

15.1: What Infants and Toddlers are Like
15.2: Introduction
15.3: Overarching Principles of Planning Curriculum for Infants and Toddlers
15.4: Program Features That Support Effective Infant and Toddler Curriculum
15.5: The Infant and Toddler Learning Process - The Starting Point
15.6: Infant and Toddler Development and Its Facilitation
15.7: Curriculum Planning
15.8: Developmentally Appropriate Planning for Infants and Toddlers - The Infant and Toddler Learning and Development Foundations

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15.1: What Infants and Toddlers are Like

During the infant/toddler years, all children depend on responsive, secure relationships to develop and learn. Let's explore what infants and toddlers are like in terms of their progression through developmental milestones, so that we can connect it to what they need from adults. Here are some representations of what children are like as infants and toddlers. You can find other ages and more developmental milestones in Appendix C.[1]



Two-month-old, Joy can hold her head up. She holds her hands in fists. She loves faces and has begun to follow objects with her eyes. She coos and turns her head towards sounds. She smiles at people.



Valentina is four months old. She holds her head steady unsupported and rolls from her tummy to her back. She brings her hands to her mouth and holds toys with a palmar grasp. She lets you know if she is happy or sad. She now babbles and likes to play with people.



6-month-old Jose rolls in both directions and is starting to sit with support and bounces when stood. He reaches with his arms and brings things to his mouth. He looks for toys that have been partially hidden or dropped. He babbles. He enjoys looking at himself in a mirror.



Amir is 9-months-old. He pulls himself to stand and now crawls. He can use a pincer grip to pick objects up and smoothly move them between his hands. He plays peek-a-boo and copies other gestures and sounds. He understands "no." He is clingy with his parents and afraid of strangers.



12-month-old Jae Hwa walks holding on to furniture and stands alone. She enjoys banging objects together and explores by poking with her index finger. She finds hidden things easily and responds to simple spoken requests. Her favorite words are "mama" and "uh-oh!" She cries when her mom leaves and has a favorite toy.



18-month-old Tiara walks alone and is beginning to run. She climbs onto and down from furniture. She scribbles and can stack up to 4 blocks. She points to and names a few names body parts and speaks in two-word sentences. She has temper tantrums. She loves to explore with her family nearby.

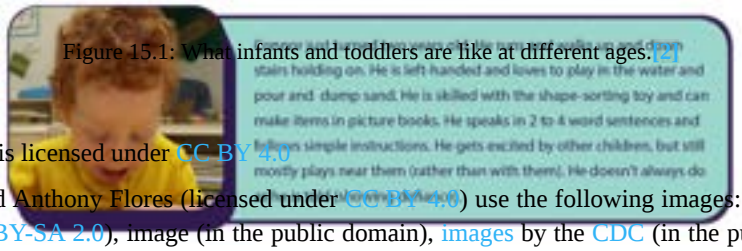

Figure 15.1: What infants and toddlers are like at different ages.[2]

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15.2: Introduction

A fundamental consideration in planning curriculum for individual children is being responsive to the competencies, experiences, interests, and needs of each child. California's infant/toddler population includes children who are culturally diverse, linguistically diverse, diverse in ability, and from diverse socioeconomic backgrounds. Partnering with families is an important strategy for being responsive to individual children and for making curriculum individually and culturally relevant.[1]



Figure 15.2: This little girl is showing a toy to her caregivers while her dad sits close by. When families and caregivers form partnerships, amazing things can happen for infants and toddlers.[2]

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15.3: Overarching Principles of Planning Curriculum for Infants and Toddlers

When planning curriculum for infants and toddlers we should keep the following principles in mind:

- The family is at the core of a young child's learning and development. Family relationships have more influence on a child's learning and development than any other relationships he has. Family members know him better than anyone else.
- Infant/toddler learning and development is grounded in relationships. Relationships provide infants and toddlers a secure emotional base from which they can explore and learn. Much of the cognitive, language, social, and physical learning a child experiences occurs while interacting with an adult. In fact, relationships with others are at the center of young children's lives.
- Emotions drive early learning and development. A child's emotional state drives early learning and greatly influences learning in other domains. The pleasure an infant experiences when receiving a positive response from a nurturing adult or when making a discovery motivates the child to continue engaging in positive interactions and exploration. For infants and toddlers, learning always has an emotional component. They are highly sensitive to the emotional cues of other people and are emotionally expressive in every situation
- Responsiveness to children's self-initiated exploration fosters learning. Research shows that responsive care and nurturance not only promotes the development of emotional security in children, but learning and development in general.
- Individualized teaching and care benefits all children. Each child is unique. Infant/toddler care teachers use their understanding of each child's blend of temperament, family and cultural experiences, language experiences, personal strengths, interests, abilities, and dispositions to support the child's learning and development. Through recognizing and adapting to each child's individual development, teachers are able to offer learning experiences that are responsive, meaningful, and developmentally attuned to each child. Providing interactions, experiences, and an environment that meet the individual needs of children with disabilities or other special needs can enrich the experiences of all children in the program. A classroom environment in which all children are supported and feel welcome creates rich learning experiences for everyone.



Figure 15.3: The way this infant is being worn by his mother gives us a glimpse into the culture of his family. It would be important for his caregivers to learn more about the routines of this child to provide him culturally responsive care.[1]

- Responsiveness to culture and language supports children's learning. Responsive infant/toddler programs create a climate of respect for each child's culture and language. Teachers and other program staff members partner and regularly communicate with family members to get to know the cultural strengths each child brings to the program. An essential part of being culturally and linguistically responsive is to value and support each child's use of home language, as "continued use and development of the child's home language will benefit the child as he or she acquires English." Equally important are nurturing interactions with children and their families in which "teachers attempt, as much as possible, to learn about the history, beliefs, and practices of the children and families they serve." In addition to being responsive to the cultural history, beliefs, values, ways of communicating, and practices of children and families, teachers create learning environments that include resources such as pictures, displays, and books that are culturally rich and supportive of diversity, particularly the cultures and languages of the children and families in their infant/toddler care setting.
- Intentional teaching and care enriches children's learning experiences. Effective curriculum planning occurs when teachers are mindful of children's learning and are intentional in their efforts to support it.
- Time for reflection and planning enhances teaching and care. In nurturing the development of infants and toddlers, teachers engage in an ongoing process of observation, documentation and assessment, reflection and planning, and implementation of strategies in order to provide individualized and small-group learning experiences. Curriculum planning requires time for teachers to reflect on children's learning and plan strategies that foster children's progress in building knowledge and mastering skills. Infant/toddler programs that support intentional teaching and care allocate time in teachers' schedules for both individual and team reflection and planning.[2]



Figure 15.4: Intentional teaching and caregiving thrives when teachers have a chance to share and collaborate around their observations, inquiries, celebrations, and challenges.[3]

Pause to Reflect

Which of the overarching principles did you connect with the most? Why? Are there any that might be more challenging for you to embrace?

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15.4: Program Features That Support Effective Infant and Toddler Curriculum

Program policies set the stage for infant/toddler learning and development. Program policies that support effective infant/toddler curriculum planning and implementation include these elements:

- Primary Care—assigning a primary infant care teacher to each child and family
- Small Groups—creating small groups of children and caregivers
- Continuity—maintaining consistent teacher assignments and groups over time
- Personalized Care—responding to individual needs, abilities, and schedules
- Cultural Continuity—maintaining cultural consistency between home and program through dialogue and collaboration with families
- Inclusion of Children with Special Needs—providing appropriate accommodations and support for children with disabilities or other special needs.[1]



Figure 15.5: How would you describe this interaction? Notice the smiles on the faces of the caregiver and parent.[2]

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15.5: The Infant and Toddler Learning Process - The Starting Point

Research has shown that infants are ready to learn from birth; they are able to absorb information from the sights, sounds, and scents around them, to store it, to sort it out, and to use it. This information helps infants understand the world and the people around them.

Research has also shown that infants and toddlers are quite dependent on primary relationships for their physical and emotional needs to be met. Aware of this need, teachers plan their interactions with infants and toddlers to address both the vulnerability and the competence of children. In doing so, teachers simultaneously attend to the children's need for close, consistent relationships with nurturing adults and to the children's curiosity and motivation to learn.[1]



Figure 15.6: One way to balance the need for close relationships and curiosity is to stay nearby during play. A caregiver can provide a secure base that allows the children to explore and emotionally check in as needed.**[2]**

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15.6: Infant and Toddler Development and Its Facilitation

Because everything is new to infants and toddlers, and their brains are developing rapidly, infancy is a unique period of life that calls for unique responses from adults. The ways infants and toddlers think, feel, and function differ somewhat from the ways children in the developmental periods of preschool, middle childhood, and adolescence think, feel, and function.

Four major aspects of infant/toddler development illuminate the kinds of "basic sensory, social, and emotional experiences" that are "essential for optimizing the architecture of low-level circuits" in the brain. The following four aspects of infant/toddler development call for a special approach to planning and supporting their learning:

1. Infants follow their own learning agenda as is focused on fundamental competencies that are developed at relatively similar times in their development, including:

- seek and form relationships with people who will nurture and protect them
- learn language for the first time in order to communicate
- construct knowledge of basic concepts such as the relationship between cause and effect and how things move and fit in space
- master rudimentary small-muscle and large-muscle skills

So, adults must be there to support this with responsive relationships by interacting with infants and toddlers in ways that best facilitate the children's learning and development.

2. Infants learn holistically. This means they take in information continuously, naturally, and fluidly. Although they often focus on one thing at a time, that focus can change quickly. From their actions, interactions, and observations, they pick up all kinds of information that they use to build knowledge and skills. A single interaction can lead to learning about many things in many areas simultaneously.

Because infants and toddlers learn in a holistic way, they may not always focus on the content area that an adult may wish to emphasize.

So, if adults structure interaction with the purpose of creating specific outcomes in a particular content area—for example, language or shapes—they will often miss the child's larger learning experience. Thus, plans to help with infant learning are best created in ways that reflect the child's openness to all aspects of an experience.

For Example:

A teacher may think that crafting a special lesson on colors will result in specific learning about color, but infants do not separate their lessons according to distinct topics. For the infant or toddler, narrowing the focus to the adult's interest or goal does not match how the child engages in learning. The child's focus may switch to the part of the interaction that is personally more important, such as the texture of the materials used to display color, the movement of the wrist to transfer the color from brush to paper, the emotional tone used in the interaction, or the social style the adult uses to introduce the activity. From the perspective of the infant or toddler, the lesson (or lessons) learned may end up having nothing to do with colors. Thus, adults can better facilitate learning by attending to the many learning possibilities that exist for an infant or toddler in a particular experience[1]



Figure 15.7: This child is deeply engaged in spreading around the shaving cream on this transparent easel. Notice the bottles of colored liquid waiting to be explored. If the only focus of this activity was color, what experiences might have been missed?[2]

3. During the first three years of life, much of a child's life is organized around issues related to security, exploration, and identity. While children attend to all three issues throughout infancy, each of these issues generally takes center stage at different points in

development. As an issue becomes more or less prominent, developmental transitions occur. The child's behavior starts to change and reflects a new way of organizing experiences.



Figure 15.8[3]

4. Infants are in the process of developing their first sense of self and this begins by how others treat them. They receive important information from others.

So, adults must be really intentional in how they treat infants and toddlers.

For Example

They may resist eating food they do not like and judge someone who tries to make them eat such food as mean or unfair. Even when infants resist eating certain foods, they do not consciously judge the person trying to feed them. Instead, they take in the ways they are treated as examples of how things are. They come to expect: "This is the way people feed me"; "This is the way people express emotions"; "These are things that cause people to get yelled at"; "These are the ways to approach people"; and "This is how my

curiosity is accepted." Thus, creating a warm, caring, personal relationship with the infant is more than a nice thing to do; it significantly contributes to a child's positive sense of self.[4]

The four aspects of infant development call for teaching and care that is individually adapted to who infants and toddlers are and who they are becoming. Because infants move through distinct developmental periods so rapidly, adults need to respect and be responsive to each child's learning agenda. Because early learning is holistic, plans to facilitate infants' learning should reflect consideration of all the domains of development that may be influenced by an experience.[5]



Figure 15.9: What domains of development do you see here? While the caregiver might be reading a book, the infants are engaged in physical, cognitive and language, and social and emotional development.[6]

Pause to Reflect

Based on what you just learned about the four major aspects of infant/toddler development what are some key things to remember when thinking about the kinds of "basic sensory, social, and emotional experiences" that infants and toddlers need?

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15.7: Curriculum Planning

Infants and toddlers have an amazing capacity to engage in learning and rapidly organize vast amounts of new information. Clearly, an infant or toddler who is exploring how something works or interacting with an adult or other children reveals an active mind that is discovering and making sense of the surrounding world of people and things.

Infants and toddlers experience the world and build knowledge holistically during simple moments of play, exploration, and interaction with objects and with other people. They constantly gather new information and make sense of it. Their minds actively take in sounds, words, patterns of movement, and the actions and reactions of people, creatures, and objects. They integrate new information into an increasingly complex system of knowledge. As infants expand their encounters with objects and people, they try out emerging skills, discover new actions, and experience feelings in new ways. In moments of play, they experiment, investigate, and invent solutions, trying to figure out how things work.[1]



Figure 15.10: What happens when you hit the metal pot with a plastic spatula? This infant is enjoying the resulting music.[2]

Contexts for Infant/Toddler Curriculum

In planning curriculum for the birth-to-age-three period, teachers must be aware of what infants and toddlers do in play, both when they act on objects and when they interact with adults and peers. In essence, play is the “work” of infants and toddlers. When teachers are mindful of the ways in which each infant experiences a moment of play, that child’s learning agenda reveals itself. In response, teachers are able to plan curriculum that aligns with the infant’s inborn learning agenda. In developing curriculum for infants and toddlers, teachers plan for three learning contexts:

1. The play environment as curriculum. Curriculum plans include the selection of play materials that add interest and complexity to distinct areas where infants and toddlers freely play.
2. Interactions and conversations as curriculum. Curriculum plans address ways of being with infants and toddlers during interaction, including nonverbal interaction, conversations, cooperation, conflicts, and times when infants express strong feelings such as delight, sadness, anger, or frustration.
3. Caregiving routines as curriculum. Curriculum plans include care routines, particularly mealtimes, diaper changes, and naptimes. Intentional teaching invites infants and toddlers to participate in care routines that deepen their relationship experiences and open up possibilities for building emerging skills and concepts.[3]



Figure 15.11: This early childhood education classroom serves the children food family style and allows the children to develop many skills through serving themselves. Look at his focus and concentration as he manipulates the tongs to pick up the food.[4]

Observation as the Basis for Planning the Infant/Toddler Curriculum

Planning infant/toddler curriculum begins with teachers discovering, through careful listening and observation, each child's development. Observation is an essential teaching skill. When teachers mindfully observe, they find out how individual children make discoveries and make meaning within everyday moments of play and interactions.

Observing for the purpose of assessing individual children's learning means carefully watching and listening with thought and reflection. In doing so, teachers find evidence of individual children's meaning-making—how a child expresses or shows feelings, how a child responds to others' feelings, and how a child responds to the impact of his actions on the objects he encounters or the people with whom he interacts.

When teachers observe infants' play and interactions, they gather evidence that pertains to individual children's social– emotional, language, cognitive, and perceptual and motor development. An observation can help teachers see, describe, and understand how an infant organizes feelings, ideas, skills, and concepts.

Sometimes, teachers may choose to write down what they observe in a note. They may also take a photo, or, with older toddlers, they may keep a sample of each child's work. In doing so, teachers collect observational data that provide clear, vivid evidence of children's development. Observing how children explore and play with newly introduced materials or ideas often makes it possible for teachers to track children's developmental progress.

As teachers observe children's play, exploration, and interactions, they discover ways to support children's learning. Ideas for the next steps in curriculum planning emerge as teachers reflect on how they might extend or expand children's exploration, problem solving, thinking, interactions, and language. Observation, reflection, and documentation in the moment simultaneously launch an ongoing assessment of each child's progress in learning as well as the curriculum planning cycle.[5]

Observing While Participating



Figure 15.12: Having note-taking materials on hand can allow you to jot down some notes quickly without even stepping away from the children.

One of the key challenges for infant care teachers is to be able to observe and record their observations while providing early care and education. Learning how to address this challenge takes time and a good support system. Teachers can develop plans together for observing and recording behavior in the context of daily routines and events. Some teachers take turns; others have systems such as cameras and note cards placed around the rooms and play yards so they can take quick notes or photos "on the fly." There are many ways to participate and observe at the same time.

Children become accustomed to the teacher's taking notes and photos, and it becomes incorporated into the daily routines. Observations from teachers who are involved with children daily are really the most useful because the teacher understands the child's context; everything from how the child slept the night before to his current interests. Infant care teachers who observe regularly are better able to provide care and education that connects with each child in the group.[6]

Observation and Documentation and the PITC Responsive Process

In the Program for Infant/Toddler Care (PITC) approach to infant/toddler care, responsive teachers are always observing children. "Watch," or observation, is the first step of the PITC's three-step responsive process. Observation enables teachers to read infants'

cues and meet their needs moment by moment. One of the central practices of the PITC is helping babies to establish secure bases for exploration and learning. The moment-by-moment monitoring of babies' messages and the prompt, contingent responses that stem from observation strengthen relationships between infants and their teachers and lead to the development of secure bases.

PITC's "Watch, Ask, and Adapt" process works hand in hand with curriculum planning that includes observation, documentation, and assessment. Infant/toddler care teachers observe in order to be responsive and build relationships with infants. In this process, teachers also observe and document, which helps them to deepen their understanding of children's learning and development and discover ways to support it.[7]



Figure 15.13: The Responsive Process.[8]

Pause to Reflect

Recall a time you observed/interacted with an infant or find a video that features an infant. Think about how you could implement The Responsive Process. How would you Watch, Ask, and Adapt?

Implementation of a Plan

Each day, infant care teachers introduce or implement possibilities for expanding children's learning and development. Once the children in care have been observed, and their experiences documented, teachers try out their plans by making changes in the environment, introducing materials, relating to and interacting with the children in new ways, and highlighting objects or concepts for selective focus. However, this implementation process should not be seen as an end point in the curriculum planning process. Each child's unique thoughts, feelings, needs, and interests in reaction to the plan or a strategy should influence the way implementation occurs. How each infant or toddler will respond to a teacher's suggestions is unpredictable. Once a possibility or suggestion is introduced, the teacher follows along, observes what each child does, and is responsive to individual children's ongoing engagement in learning.

Once an interaction with a child or small group of children begins, teachers have to be ready to adapt their plans and actions to the momentary and often changing needs and interests of each child. Adaptation and change are critical parts of both children's and teachers' learning processes and come into play constantly during the implementation process.



Figure 15.14: This teacher is going to need to be ready to follow the lead of the children as they create their own experience from what she has planned for them.[9]

The activities, environments, and interaction opportunities that are introduced should reflect respect for (1) the competencies that infants and toddlers bring to each interaction and (2) the children's need for relationship-based experiences.

To work well, implementation should adapt to the infant's changing interests and needs during each day. In this way, the curriculum will be responsive to what the infants bring to early experiences and to what the children seek from those experiences.

Implementation should:

- orient the infant care teacher to the role of facilitator of learning;
- help the teacher read the cues of each infant in the small group;
- address the whole learning experience of the children, including the learning environment and the program policies that contribute to the learning climate;
- spark each infant's interest and encourage and support exploration;
- reflect consideration for developmental stages but also allow for individual variations in temperament, approach, and pace;
- be broad enough in scope to enable the teacher to respond to all developmental domains simultaneously.

The teacher's interaction strategies are complemented by a supportive environment that offers:

- a safe and interesting place for learning;
- a variety of materials that are appropriate for the individual needs and interests of infants and toddlers in the group;
- organization of learning and care in small groups;
- adherence to policies that maximize each child's sense of security in care and continuity of relationship with the teachers;
- optimization of program connections with the child's family.[10]

For Example

A teacher may have observed over several days that a small group of older toddlers is becoming fascinated with pretend play. Among the reasons that the teacher may be attuned to this interest is its connection to several infant/toddler learning and development foundations, most notably, symbolic play. Through reflection on observations and documentation of the children's emerging interests, the teacher may decide to place additional puppets in the environment. The teacher may wonder whether the puppets would motivate the children to continue to build their interest in pretend play. Rather than drawing attention to the puppets, the teacher may simply decide to place the puppets in the dramatic play area in the room. The teacher may also add to the outside play area some new props related to gardening. Then, curious about what the children will do with the new play materials, the teacher would wait to see what happens next. Anything could happen; the children may not be interested in the new materials, or they may begin to engage in lively pretend play that suggests new possibilities to the teacher.[11]



Figure 15.15: What materials do you notice that support dramatic play are featured in this space? What else might teachers want to provide?[12]

Pause to Reflect

After taking the time to reflect on what you learned about the infant/toddler (referencing the observation/interaction or video you used in the previous *Pause the Reflect* feature), what might you want to implement with that infant/toddler? If you were to offer that experience to other infants/toddlers, how might you anticipate needing to modify the experience to meet their needs?

References

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15.8: Developmentally Appropriate Planning for Infants and Toddlers - The Infant and Toddler Learning and Development Foundations

We started the chapter by looking at what infants and toddlers are like. The foundations, which describe competencies—knowledge and skills—that all young children typically learn with appropriate support, provide guidance on how to plan what is developmentally appropriate for infants and toddlers. They also present infant/toddler learning and development as an integrated process that includes social–emotional development, language development, cognitive development, and perceptual and motor development. The foundations give a comprehensive view of what infants and toddlers learn through child-initiated exploration and discovery, teacher-facilitated experiences, and planned environments, offering rich background information for teachers to consider as they plan for children.



Figure 15.16: The space under this loft was thoughtfully designed to provide children a cozy space to enjoy a good book.[1]

The foundations identify key areas of learning and development. While moving in the direction identified by each foundation, every child will progress along a unique path that reflects his or her individuality and cultural and linguistic experiences. The foundations help teachers understand children's learning and can give focus to intentional teaching.[2]

Social–Emotional Development

Social–emotional development includes the child's experience, expression, and management of emotions and the ability to establish positive and rewarding relationships with others. It encompasses both intra- and interpersonal processes.



Figure 15.17: Notice how this teacher is supporting the social-emotional development of both of these children as they interact over the gate.[3]

Guiding principles of the social-emotional curriculum include:

- Learn from the family about the child's social–emotional development
- Place relationships at the center of curriculum planning
- Read and respond to children's emotional cues
- Attend to the environment's impact on children's social– emotional development
- Understand and respect individuality

The environment should:

- Be positive and allow children to explore freely, while often hearing "yes" and seldom hearing "no"
- Provide materials that support relationships and the development of social understanding
- Provide materials that relate to feelings and emotional expression
- Be arranged to support peer interactions and relationships

Caregivers should:

- Offer learning opportunities through caregiving routines
- Learn about temperament
- Pay attention to feelings and emotional responses
- Support and respect the child's relationship with his or her family
- Support relationships and interactions among the children in the program
- Model responsive and respectful interactions and behavior
- Respect children's interests
- Support children's regulation of emotions
- Demonstrate acceptance for all of the feelings children express[4]

Vignette

Anita is holding six-month-old Jed on her lap. Jed is the first child to arrive in Anita's family child care home each day. They have a few quiet minutes together before the other children begin to arrive. Anita has noticed that Jed often demonstrates excitement when watching the older children. He kicks his legs and puffs his breath when he sees Carlo and his mother enter the playroom. Miss Anita turns so that Jed can easily see Carlo and she says softly to Jed, "Here is Carlo, coming to play. He made you laugh yesterday, didn't he?" Anita smiles and greets Carlo and his mother, and then she says, "Carlo, Jed is so happy to see you. Do you see how he kicks his legs and waves his arms? Would you like to say hello?" When Carlo approaches, Anita says to Jed, "Here is Carlo, coming to say hello." The boys gaze at each other quietly for a moment. Anita is attentive and silent. Then Carlo makes a silly face and dances, and Jed lets out a little giggle. Carlo's mother, who is several months pregnant, shares a smile with Anita.[5]

Summary of Infant/Toddler Foundations in Social/Emotional Development

The key concepts in the Social/Emotional domain that provide an overview of the infants and toddlers social and emotional development are:

- Interactions with Adults: The developing ability to respond to and engage with adults

8 months	18 months	36 months
At around eight months of age, children purposefully engage in reciprocal interactions and try to influence the behavior of others. Children may be both interested in and cautious of unfamiliar adults. (7 mos.; Lame, Bornstein, and Teti 2002) (8 mos.; Meisels and others 2003, 16)	At around 18 months of age, children may participate in routines and games that involve complex back-and-forth interaction and may follow the gaze of the infant care teacher to an object or person. Children may also check with a familiar infant care teacher when uncertain about something or someone. (18 mos.; Meisels and others, 2003, 33)	At around 36 months of age, children interact with adults to solve problems or communicate about experiences or ideas. (California Department of Education 2005, 6; Marvin and Britner 1999, 60)

- Relationships with Adults: The development of close relationships with certain adults who provide consistent nurturance
  Interactions with Peers: The developing ability to respond to and engage with other children

8 months	18 months	36 months
At around eight months of age, children seek a special relationship with one (or a few) familiar adult(s) by initiating interaction and seeking proximity, especially when distressed. (6-9 mos.; Marvin and Britner 1999, 52)	At around 18 months of age, children feel secure exploring the environment in the presence of important adults with whom they have developed a relationship over an extended period of time. When distressed, children seek to be physically close to these adults. (6-18 mos.; Marvin and Britner 1999, 52; Bowlby 1983)	At around 36 months of age, when exploring the environment, from time to time children reconnect, in a variety of ways, with the adult(s) with whom they have developed a special relationship: through eye contact; facial expressions; shared feelings; or conversations about feelings, shared activities, or plans. When distressed, children may still seek to be physically close to these adults. (By 36 mos.; Marvin and Britner 1999, 57)

- Interactions with peers: The developing ability to respond to and engage with other children

8 months	18 months	36 months

8 months	18 months	36 months
At around eight months of age, children show interest in familiar and unfamiliar peers. Children may stare at another child, explore another child's face and body, and respond to siblings and older peers. (8 mos.; Meisels and others 2003)	At around 18 months of age, children engage in simple back-and-forth interactions with peers for short periods of time. (Meisels and others 2003, 35)	At around 36 months of age, children engage in simple cooperative play with peers. (36 mos.; Meisels and others 2003 70)

- Relationships with Peers: The development of relationships with certain peers through interactions over time

8 months	18 months	36 months
At around eight months of age, children show interest in familiar and unfamiliar children. (8 mos.; Meisels and others 2003, 17)	At around 18 months of age, children prefer to interact with one or two familiar children in the group and usually engage in the same kind of back-and-forth play when interacting with those children. (12-18 mos.; Mueller and Lucas 1975)	At around 36 months of age, children have developed friendships with a small number of children in the group and engage in more complex play with those friends than with other peers.

- Identity of Self in Relation to Others: The developing concept that the child is an individual operating within social relationships

8 months	18 months	36 months
At around eight months of age, children show clear awareness of being a separate person and of being connected with other people. Children identify others as both distinct from and connected to themselves. (Fogel 2001, 347)	At around 18 months of age, children demonstrate awareness of their characteristics and express themselves as distinct persons with thoughts and feelings. Children also demonstrate expectations of others' behaviors, responses, and characteristics on the basis of previous experiences with them.	At around 36 months of age, children identify their feelings, needs, and interests, and identify themselves and others as members of one or more groups by referring to categories. (24-36 mos.; Fogel 2001, 415; 18-30 mos.)

- Recognition of Ability: The developing understanding that the child can take action to influence the environment

8 months	18 months	36 months
At around eight months of age, children understand that they are able to make things happen.	At around 18 months of age, children experiment with different ways of making things happen, persist in trying to do things even when faced with difficulty, and show a sense of satisfaction with what they can do. (McCarty, Clifton, and Collard 1999).	At around 36 months of age, children show an understanding of their own abilities when describing themselves.

- Expression of Emotion: The developing ability to express a variety of feelings through facial expressions, movements, gestures, sounds, or words

8 months	18 months	36 months
At around eight months of age, children express a variety of primary emotions such as contentment, distress, joy, sadness, interest, surprise, disgust, anger, and fear. (Lamb, Bornstein, and Teti 2002, 341)	At around 18 months of age, children express emotions in a clear and intentional way, and begin to express some complex emotions, such as pride.	At around 36 months of age, children express complex, self-conscious emotions such as pride, embarrassment, shame, and guilt. Children demonstrate awareness of their feelings by using words to describe feelings to others or action them out in pretend play. (Lewis and others 1989; Lewis 2000b; Lagattuta and Thompson 2007)

- Empathy: The developing ability to share in the emotional experiences of others Emotion

8 months	18 months	36 months

8 months	18 months	36 months
At around eight months of age, children demonstrate awareness of others' feelings by reacting to their emotional expressions.	At around 18 months of age, children change their behavior in response to the feelings of others even though their actions may not always make the other person feel better. Children show an increased understanding of the reason for another's distress and may become distressed by the other's distress. (14 mos.; Zahn-Waxler, Robinson, and Emde 1992; Thompson 1987; 24 mos.; Zahn-Waxler and Radke-Yarrow 1982, 1990)	At around 36 months of age, children understand that other people have feelings that are different from their own and can sometimes respond to another's distress in a way that might make that person feel better. (24-36 mos.; Hoffman 1982; 18 mos.; Thompson 1987, 135)

Regulation: The developing ability to manage emotional responses with assistance from others and independently

8 months	18 months	36 months
At around eight months of age, children use simple behaviors to comfort themselves and begin to communicate the need for help to alleviate discomfort or distress.	At around 18 months of age, children demonstrate a variety of responses to comfort themselves and actively avoid or ignore situations that cause discomfort. Children can also communicate needs and wants through the use of a few words and gestures. (National Research Council and Institute of Medicine 2000, 112; 15-18 mos.; American Academy of Pediatrics 2004, 270; Coplan 1990, 1)	At around 36 months of age, children anticipate the need for comfort and try to prepare themselves for changes in routine. Children have many self-comforting behaviors to choose from, depending on the situation, and can communicate specific needs and wants. (Kopp 1989; CDE 2005)

Impulse Control: The developing capacity to wait for needs to be met, to inhibit potentially hurtful behavior, and to act according to social expectations, including safety rules

8 months	18 months	36 months
At around eight months of age, children act on impulses. (Birth-9 mos.; Bronson 2000b, 64)	At around 18 months of age, children respond positively to choices and limits set by an adult to help control their behavior. (18 mos.; Meisels and others 2003, 34; Kaler and Kopp 1990)	At around 36 months of age, children may sometimes exercise voluntary control over actions and emotional expressions. (Bronson 2000b, 67)

Social Understanding: The developing understanding of the responses, communication, emotional expressions, and actions of other people

8 months	18 months	36 months
At around eight months of age, children have learned what to expect from familiar people, understand what to do to get another's attention, engage in back-and-forth interaction with others, and imitate the simple actions or facial expressions of others.	At around 18 months of age, children know how to get the infant care teacher to respond in a specific way through gestures, vocalizations, and shared attention; use another's emotional expressions to guide their own response to unfamiliar events; and learn more complex behavior through imitation. Children also engage in more complex social interactions and have developed expectations for a greater number of familiar people.	At around 36 months of age, children can talk about their own wants and feelings and those of other people, describe familiar routines, participate in coordinate episodes of pretend play with peers, and interact with adults in more complex ways.

Foundations in Action



Figure 15.18[6]



Figure 15.19[7]



Figure 15.20[8]

Looking at this sequence of images, what might have happened here? Which of the Social/Emotional Foundations do you see in these three images?

Language Development

Language development naturally occurs through ongoing interactions with adults. Babies have an inborn capacity to learn language that emerges by experiencing language input from adults. Experiences with language allow infants and toddlers to acquire mastery of sounds, grammar, and rules that guide communication and to share meaning with others.



Figure 15.21: Engaging in play with toddlers is one of the best ways to support language development. Wouldn't it be great if this image came with audio? What might they be talking about?[9]

Guiding principles of the language curriculum include:

- Be responsive to the active communicator and language learner
- Include language in your interactions with infants and toddlers
- Celebrate and support the individual
- Connect with children's cultural and linguistic experiences at home
- Build on children's interests
- Make communication and language interesting and fun
- Create literacy-rich environments

The environment should:

- Provide for exploration of books and other sources of print
- Moderate background noise
- Be arranged to support language development and communication
- Provide open-ended materials that foster communication

Caregivers should:

- Be responsive when children initiate communication
- Engage in nonverbal communication
- Use child-directed language
- Use self-talk and parallel talk (narrate their own and others actions)
- Help children expand language
- Support dual-language development
- Attend to individual development and needs
- Be playful with language[10]

Vignette

It is early in the morning, and 24-month-old Sabela is sitting quietly on the lap of her teacher, Sonja. Sonja and the other teachers talk about the day ahead. Sonja says to another child, “Tony, let’s go out early today. It’s supposed to rain this morning.” Sabela hops up, walks over to the cupboard, and takes out a bag of sand toys to play with outside. Taking out the sand toys and then collecting them to bring them back to the classroom is an activity that Sabela often helps with. Upon seeing Sabela move toward the back door, dragging the sack of sand toys, Sonja makes eye contact and smiles. Sonja also notes that Sabela understood Sonja’s comments to Tony.[11]

Summary of Infant/Toddler Foundation in Language Development

The key concepts in the Language domain that provide an overview of the infants and toddlers language and communication development are:

- Receptive Language: The developing ability to understand words and increasingly complex utterances

8 months	18 months	36 months
At around eight months of age, children show understanding of a small number of familiar words and react to the infant care teacher’s overall tone of voice.	At around 18 months of age, children show understanding of one-step requests that have to do with the current situation.	At around 36 months of age, children demonstrate an understanding of the means of others’ comments, questions, requests, or stories. (BY 36 mos.; American Academy of Pediatrics 2004, 307).

- Expressive Language: The developing ability to produce the sounds of language and use vocabulary and increasingly complex utterances

8 months	18 months	36 months
At around eight months of age, children experiment with sounds, practice making sounds, and use sounds or gesture to communicate needs, wants, or interests.	At around 18 months of age, children say a few words and use conventional gestures to tell others about their needs, wants, and interests. (By 15 to 18 mos.; American Academy of Pediatrics 2004 270; Coplan 1993, 1; Hulit and Howard 2006, 142)	At around 36 months of age, children communicate in a way that is understandable to most adults who speak the same language they do. Children combine words into simple sentences and demonstrate the ability to follow some grammatical rules of the home language. (By 36 mos.; American Academy of Pediatrics 2004, 307; 30-36mos.; Lerner and Ciervo 2003; by 36 mos.; Hart and Risley 1999, 67)

- Communication Skills and Knowledge: The developing ability to communicate nonverbally and verbally

8 months	18 months	36 months
At around eight months of age, children participate in back-and-forth communication and games.	At around 18 months of age, children use conventional gestures and words to communicate meaning in short back-and-forth interactions and use the basic rules of conversational turn-taking when communicating. (Bloom, Rocissano, and Hood 1976)	At around 36 months of age, children engage in back-and-forth conversations that contain a number of turns, with each turn building upon what was said in the previous turn. (Hart and Risely 1999, 122)

Interest in Print: The developing interest in engaging with print in books and in the environment

8 months	18 months	36 months

8 months	18 months	36 months
At around eight months of age, children explore books and show interest in adult-initiated literacy activities, such as looking at photos and exploring books together with an adult. (Scaled score of 10 for 7:16-8:15 mos.; Bayley 2006, 57; infants; National Research Council 1999, 28)	At around 18 months of age, children listen to the adult and participate while being read to by pointing, turning pages, or making one- or two-word comments. Children actively notice print in the environment.	At around 36 months of age, children show appreciation for books and initiate literacy activities: listening, asking questions, or making comments while being read to; looking at books on their own; or making scribble marks on paper and pretending to read what is written. (Schickedanz and Casbergue 2004, 11)

What Language Looks Like in Deaf and Hard-of-Hearing Children



Figure 15.22[12]

What happens when a child cannot hear spoken language? They can learn to communicate through sign language. American Sign Language (ASL) is a complete, natural language that has the same linguistic properties as spoken languages, with grammar that differs from English. ASL is expressed by movements of the hands and face. It is the primary language of many North Americans who are deaf and hard of hearing, and is used by many hearing people as well.

Parents are often the source of a child's early acquisition of language, but for children who are deaf, additional people may be models for language acquisition. A deaf child born to parents who are deaf and who already use ASL will begin to acquire ASL as naturally as a hearing child picks up spoken language from hearing parents. However, for a deaf child with hearing parents who have no prior experience with ASL, language may be acquired differently. In fact, 9 out of 10 children who are born deaf are born to parents who hear. Some hearing parents choose to introduce sign language to their deaf children. Hearing parents who choose to have their child learn sign language often learn it along with their child. Children who are deaf and have hearing parents often learn sign language through deaf peers and become fluent.

Parents should expose a deaf or hard-of-hearing child to language as soon as possible. The earlier a child is exposed to and begins to acquire language, the better that child's language, cognitive, and social development will become. Research suggests that the first few years of life are the most crucial to a child's development of language skills, and even the early months of life can be important for establishing successful communication with caregivers. Thanks to screening programs in place at almost all hospitals in the United States and its territories, newborn babies are tested for hearing before they leave the hospital. If a baby has hearing loss, this screening gives parents an opportunity to learn about communication options. Parents can then start their child's language learning process during this important early stage of development.[13]

Cognitive Development

The term cognitive development refers to the process of growth and change in intellectual or mental abilities such as thinking, reasoning, and understanding. It includes the acquisition and consolidation of knowledge. Over the past three decades, infancy research has caused developmental psychologists to change the way they characterize the earliest stages of cognitive development. Once regarded as an organism driven mainly by simple sensorimotor schemes, the infant is now seen as having sophisticated cognitive skills and concepts that guide knowledge acquisition.



Figure 15.23: Look at these infants happily exploring mirrors with their whole bodies while their caregiver observes and provides materials to extend their exploration.[14]

Guiding principles of the language curriculum include:

- Relate to the child as an active learner
- Provide opportunities for exploration
- Respect the child's initiative and choices
- Allow ample time for children to make sense of experiences
- Appreciate the child's creativity
- Describe the child's actions and effects of actions
- Support self-initiated repetition and practice
- Give appropriate encouragement for problem solving and mastery
- Support the child's activity participation in personal care routines

The environment should:

- Provide play spaces with rich opportunities for learning
- Provide storage/display of toys in places that are easily visible and accessible
- Include both novelty and predictability
- Be arranged to encourage exploration
- Provide nesting and stacking toys to support an understanding of spatial relationships
- Provide toys that support cause-and-effect experimentation
- Include toys and props for and be arranged to support pretend play
- Provide toys that support the collection and storage of treasures



Figure 15.24: This is a space that is designed for toddlers. Notice the size of the furniture, the way play materials are stored to be accessible to children, and even the nesting toy waiting to be played with on the table top.[15]

Caregivers should:

- Notice what interests the child
- Use language to engage each child's intellect
- Use personal care routines to support cognitive development[16]

Vignette

Jenna has been crawling for several weeks now and is getting quite fast at moving around. This morning, her teacher, Archie, is watching closely as Jenna crawls up the wide ramp to a platform where there are several large, plastic boxes of different sizes. Jenna crawls up to a box and sticks her head inside it, as if she were going to crawl into the box.

Archie knows she will not be able to fit her entire body inside the box, but Jenna is already halfway inside it. Archie scoots up the ramp to Jenna, who may be feeling a little stuck at this point, and gently places his hand on Jenna's back, saying, "You put your head in this big box, and the rest of you is out here with me. I'm here, Jenna."

Jenna pulls her head out, looks at Archie, and then vocalizes, "Ahhh, ya, ya" and gestures toward the box. Archie smiles and says, "Yes, I saw you with your head in there. I came right up here in case you needed me, but you got yourself out, didn't you?" Jenna looks back at Archie, and then at the box, a few times. Then she bangs on the box with her hands and crawls to a larger box. She glances back at Archie, who smiles, and she crawls in, fitting into the larger box quite easily. "You are in the big box, Jenna. You sure are, and I'm out here." Jenna smiles and bangs on the box while vocalizing her triumph. [17]

Summary of Infant/Toddler Foundation in Cognitive Development

The key concepts in the Cognitive domain that provide an overview of the infants and toddlers cognitive development are:

- Cause-and-Effect: The developing understanding that one event brings about another

8 months	18 months	36 months
At around eight months of age, children perform simple actions to make things happen, notice the relationships between events, and notice the effects of others on the immediate environment.	At around 18 months of age, children combine simple actions to cause things to happen or change the way they interact with objects and people in order to see how it changes the outcome.	At around 36 months of age, children demonstrate an understanding of cause and effect by making predictions about what would happen and reflect upon what caused something to happen. (California Department of Education [CDE] 2005)

- Spatial Relationships: The developing understanding of how things move and fit in space

8 months	18 months	36 months
At around eight months of age, children move their bodies, explore the size and shape of objects, and observe people and objects as they move through space.	At around 18 months of age, children use trial and error to discover how things move and fit in space (12-18 mos.; Parks 2004, 81)	At around 36 months of age, children can predict how things will fit and move in space without having to try out every possible solution, and show understanding of words used to describe size and locations in space.

- Problem Solving: The developing ability to engage in a purposeful effort to reach a goal or figure out how something works

8 months	18 months	36 months
At around eight months of age, children use simple actions to try to solve problems involving objects, their bodies, or other people.	At around 18 months of age, children use a number of ways to solve problems: physically trying out possible solutions before finding one that works; using objects as tools; watching someone else solve the problem and then applying the same solution; or gesturing or vocalizing to someone else for help.	At around 36 months of age, children solve some problems without having to physically try out every possible solution and may ask for help when needed. (By 36 mos.; American Academy of Pediatrics 2004, 308)

- Imitation The developing ability to mirror, repeat, and practice the actions of others, either immediately or later

8 months	18 months	36 months
At around eight months of age, children imitate simple actions and expressions of others during interactions.	At around 18 months of age, children imitate others' actions that have more than one step and imitate simple actions that they have observed others doing at an earlier time. (Parks 2004; 28)	At around 36 months of age, children reenact multiple steps of others' actions that they have observed at an earlier time. (30-36 mos.; Parks 2004, 29)

- Memory: The developing ability to store and later retrieve information about past experiences

8 months	18 months	36 months
At around eight months of age, children recognize familiar people, objects, and routines in the environment and show awareness that familiar people still exist even when they are no longer physically present.	At around 18 months of age, children remember typical actions of people, the location of objects, and steps of routines.	At around 36 months of age, children anticipate the series of steps in familiar activities, events, or routines; remember characteristics of the environment or people in it; and may briefly describe recent past events or act them out. (24-36 mos.; Seigel 1999, 33)

- Number Sense: The developing understanding of number and quantity

8 months	18 months	36 months
At around eight months of age, children usually focus on one object or person at a time, yet they may at times hold two objects, one in each hand.	At around 18 months of age, children demonstrate understanding that there are different amounts of things.	At around 36 months of age, children show some understanding that numbers represent how many and demonstrate understanding of words that identify how much. (By 36 mos.; American Academy of Pediatrics 2004, 308)

- Classification: The developing ability to group, sort, categorize, connect, and have expectations of objects and people according to their attributes

8 months	18 months	36 months
At around eight months of age, children distinguish between familiar and unfamiliar people, places, and objects, and explore the difference between them. (Barrera and Mauer 1981)	At around 18 months of age, children show awareness when objects are in some way connected to each other, match two objects that are the same, and separate a pile of objects into two groups based on one attribute. (Mandler and McDonough 1998)	At around 36 months of age, children group objects into multiple piles based on one attribute at a time, put things that are similar but not identical into one group, and may label each grouping, even though sometimes these labels are overgeneralized. (36 mos.; Mandler and McDonough 1993)

- Symbolic Play: The developing ability to use actions, objects, or ideas to represent other actions, objects, or ideas

8 months	18 months	36 months
At around eight months of age, children become familiar with objects and actions through active exploration. Children also build knowledge of people, action, objects, and ideas through observation. (Fenson and others 1976; Rogoff and others 2003)	At around 18 months of age, children use one object to represent another object and engage in one or two simple actions of pretend play.	At around 36 months of age, children engage in make-believe play involving several sequenced steps, assigned roles, and an overall plan and sometimes pretend by imagining an object without needing the concrete object present. (30-36 mos.; Parks 2004, 29)

- Attention Maintenance: The developing ability to attend to people and things while interacting with others and exploring the environment and play materials

8 months	18 months	36 months
At around eight months of age, children pay attention to different things and people in the environment in specific, distinct ways. (Bronson 200, 64)	At around 18 months of age, children rely on order and predictability in the environment to help organize their thoughts and focus attention. (Bronson 2000, 191)	At around 36 months of age, children sometimes demonstrate the ability to pay attention to more than one thing at a time.

Understanding of Personal Care Routines: The developing ability to understand and participate in personal care routines

8 months	18 months	36 months

8 months	18 months	36 months
At around eight months of age, children are responsive during the steps of personal care routines. (CDE 2005)	At around 18 months of age, children show awareness of familiar personal care routines and participate in the steps of these routines. (CDE 2005)	At around 36 months of age, children initiate and follow through with some personal care routines. (CDE 2005)

Discoveries of Infancy

Learning Schemes

Learning schemes are the building blocks for all other discovery during infancy. By using schemes such as banging, reaching, and mouthing, children gain valuable information about things. Scheme development helps children discover how objects are best used and how to use objects in new and interesting ways.

Cause and Effect

As infants develop, they begin to understand that events and outcomes are caused. They learn that:

- They can cause things to happen either with their own bodies or through their own actions.
- Other people and objects can cause things to happen.
- Specific parts of objects, for example, wheels, light switches, knobs, and buttons on cameras, can cause specific effects.

Use of Tools

Tools are anything children can use to accomplish what they want. Among the tools infants use are a cry, a hand, a caregiver, and an object. Infants learn to extend their power through the use of tools. They learn that a tool is a means to an end.

Object Permanence

For young infants, ‘out of sight’ often means ‘out of mind.’ Infants are not born knowing about the permanence of objects. They make this important discovery gradually through repeated experiences with the same objects, such as a bottle, and the same persons, such as their mother or father. Infants learn that things exist even when one cannot see them.

Understanding Space

Much of early learning has to do with issues of distance, movement, and perspective. Infants learn about spatial relationships through bumping into things, squeezing into tight spaces, and seeing things from different angles. In a sense, infants and toddlers at play are young scientists, busily investigating the physical universe. For example, they find out about:

- Relative size as they try to fit an object into a container
- Gravity as they watch play cars speedily roll down a slide
- Balance as they try to stack things of different shapes and sizes

Imitation

One of the most powerful learning devices infants and toddlers use is imitation. It fosters the development of communication and a broad range of other skills.

Even very young infants learn from trying to match other people’s actions. . . .

As infants develop, their imitations become increasingly complex and purposeful. . . . At every stage of infancy, children repeat and practice what they see. By doing the same thing over and over again they make it their own.”

—Discoveries of Infancy: Cognitive Development and Learning (PITC child care Video Magazine)[18]

Pause to Reflect

How do these discoveries of infancy relate to the Cognitive Foundations? How might you use both to plan engaging curriculum for infants and toddlers?



Figure 15.25: Caregiving routines are a valuable one-on-one time for infants and toddlers. Engaging them in the process lays the foundation for them to become more autonomous in meeting their own needs.[19]

Perceptual and Motor Development

Perception refers to the process of taking in, organizing, and interpreting sensory information. Perception is multimodal, with multiple sensory inputs contributing to motor responses. Motor development refers to changes in a child's ability to control his body movements, from the infant's first spontaneous waving and kicking movements to the adaptive control of reaching, locomotion, and complex sport skills. Gross motor actions include the movement of large limbs or the whole body, such as walking. Fine motor behaviors include the use of fingers to grasp and manipulate objects. Motor behaviors such as touching and grasping are forms of exploratory activity.

Guiding principles of perceptual and motor development curriculum include:

- Recognize the child's developing abilities
- Encourage self-directed movement
- Respect individual differences
- Provide a safe place for each age group
- Be available to children as they move and explore
- The environment should:
- Include materials that support perceptual and motor development, focusing on the children's interests and how to expand on those interests
- Provide many opportunities for movement and large motor play, both indoors and outdoors
- Provide safe, but challenging spaces where children can move, both indoors and outdoors
- Establish physical boundaries for moving and exploring with the arrangement of furniture and space
- Protect young children's need for sheltered spaces
- Be arranged safely
- Allow children to move easily
- Include everyday objects and materials
- Provide a variety of sensory and motor experiences



Figure
15.26: Look at the variety of opportunities that children have to practice their perceptual and motor abilities in this space.[20]

Caregivers should:

- Provide the infant with freedom to move
- See things from the infant's perspective

- Help build the infant's feelings of comfort, security, and awareness of his body
- Use common routines, activities, and behaviors to allow for practice of perceptual and motor skills
- Acknowledge each child's accomplishments[21]

Vignette

Seven-month-old Abasi is seated comfortably in teacher Stephen's lap, ready for lunch. Abasi tugs at his bib and watches intently as Stephen fills a bowl with orange baby food. Abasi opens his mouth when Stephen holds up a full spoon for him to see. Stephen gently moves the spoon to Abasi's lips, and Abasi closes his mouth on the spoon. Almost immediately, Abasi spits out the spoon and food and grimaces. Stephen is surprised. Abasi refuses another bite and ends up having a bottle instead. Stephen mentions this episode to Abasi's grandmother at pickup time. She laughs and says, "His favorite food is peaches, but that was carrots. I told his Mama that it would be a nasty surprise for him!" Abasi watches as the two adults laugh together. Stephen comments, "Abasi, you looked at the orange color and expected your favorite—peaches. What a surprise to taste carrots!"[22]

Summary of Infant/Toddler Foundations in Perceptual and Motor Development

It is important to recognize that, though developmental charts may show motor development unfolding in the form of a smooth upward progression toward mastery, the development of individual children often does not follow a smooth upward trajectory. In fact, "detours" and steps backward are common as development unfolds.[23]

The key concepts in the Perceptual and Motor Development domain that provide an overview of the infants and toddlers perceptual and motor development are:

- Perceptual Development: The developing ability to become aware of the social and physical environment through the senses

8 months	18 months	36 months
At around eight months of age, children use the senses to explore objects and people in the environment. (6-9 mos.; Ruff and Kohler 1978)	At around 18 months of age, children use the information received from the senses to change the way they interact with the environment.	At around 36 months of age, children can quickly and easily combine the information received from the senses to inform the way they interact with the environment.

- Gross Motor: The developing ability to move the large muscles

8 months	18 months	36 months
At around eight months of age, children demonstrate the ability to maintain their posture in a sitting position and to shift between sitting and other positions.	At around 18 months of age, children move from one place to another by walking and running with basic control and coordination.	At around 36 months of age, children move with ease, coordinating movements and performing a variety of movements.

- Fine Motor: The developing ability to move the small muscles

8 months	18 months	36 months
At around eight months of age, children easily reach for and grasp things and use eyes and hands to explore objects actively. (6 mos.; Alexander, Boehme, and Cupps 1993, 112)	At around 18 months of age, children are able to hold small objects in one hand and sometimes use both hands together to manipulate objects. (18 mos.; Meisels and others 2003, 40)	At around 36 months of age, children coordinate the fine movements of the fingers, wrists, and hands to skillfully manipulate a wide range of objects and materials in intricate ways. Children often use one hand to stabilize an object while manipulating it.

Foundations in Action



Figure 15.27[24]

These two images capture all three of the Perception and Motor Foundations. Can you see how all of these are at play here?

References

[1] Image by the California Department of Education is used with permission

[2] The California Infant/Toddler Curriculum Framework by the California Department of Education is used with permission

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[4] The California Infant/Toddler Curriculum Framework by the California Department of Education is used with permission

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Introduction to Planning for Other Ages

Learning Objectives

By the end of this introduction, you should be able to:

- Predict differences between planning for infants and toddlers and planning for preschoolers
- Predict differences between planning for school-age children and planning from preschoolers

Brief Introduction to Planning for Infant and Toddlers

The basis for curriculum for infants and toddler is caregiving routines. Therefore, curriculum for infants and toddlers is individualized. Chapter 15 goes into great detail on what the cycle of curriculum planning looks like during the early years, including:

- Overarching principles for curriculum planning
- Program features that support effective curriculum
- The learning process during infancy and toddlerhood
- Facilitating infant and toddler development
- The cycle of curriculum planning
- Infant and toddler foundations
  - Social/emotional development
  - Language development
  - Cognitive development
  - Perceptual and motor development



Figure 1: One-on-one interactions are the foundation of infant/toddler curriculum. Image used with permission (California Department of Education)

Brief Introduction to Planning for School-Age Children

Children in kindergarten through grade 8, may be cared for in out-of-school programs that have a variety of philosophies and approaches. School-age care may provide academic support (or even focus) and should include recreation (after the school day). Chapter 16 discusses a general framework of creating high-quality curriculum for school-age care programs based on a model from Australia. The chapter addresses:

- Introducing the framework
- Pedagogy (the professional practice of educators)
- Principles of children's play and learning
- Putting the framework into practice
  - Holistic approaches
  - Collaboration with children
  - Learning through play
  - Intentionality
  - Environments
  - Cultural competence
  - Continuity and Transitions

- Evaluation

- Five outcomes for children's well-being, development, and learning
- The curriculum planning cycle



Figure 2: These children pose with a banner they made at their school-age care program. (Public Domain; Staff Sgt. Vesta Anderson via (U.S. Air Force)

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CHAPTER OVERVIEW

16: What Curriculum Looks Like for School-Age Children

Learning Objectives

By the end of the chapter, you should be able to:

- Connect the purpose of school-age care to important aspects of planning curriculum for school-aged children
- Explain how the needs of school-aged children and desired outcomes are met through developmentally curriculum
- Justify the importance of collaboration between educators and children, families, and communities
- Examine the role of reflective practice in curriculum planning
- Define what a holistic approach to curriculum is
- Analyze the value of play in school-age care and curriculum
- Identify ways to plan for the different types and aspects of play
- Discuss the importance of intentionality
- List considerations for planning the environment for school-aged children
- Summarize the role of diversity and the importance of cultural competence in school-aged programs
- Describe how quality curriculum planning meets the five outcomes
- Relate each step of the curriculum planning process
- Differentiate the different roles of the educator

During the school-age years (kindergarten to grade 8), children may be cared for during out-of-school times in a variety of school-age programming. The focus, philosophy, staffing, and location of those programs will vary greatly. This chapter will briefly discuss some information that can be used to create high quality curriculum for children in school-age programming.

But before we get to that, let's look at what school-age children are like. Meet these school-aged children:



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16.1: Introduction
16.2: Introducing the Framework
16.3: Pedagogy
16.4: Principles
16.5: Practice
16.6: A Closer Look at the Outcomes
16.7: The Planning Cycle
16.8: Conclusion

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16.1: Introduction

In school-age care settings educators collaborate with children to provide play and recreational opportunities that are meaningful to children and support their well-being, learning and development. School-age care settings pay attention to the needs and interests of individual children within a context that promotes collaboration and active citizenship. Children in school-age care settings have choice and control over their learning as they collaborate with educators to extend their life skills and develop dispositions towards citizenship.

From before birth, children are connected to family, community, culture and place. Their earliest development and learning takes place through these relationships, particularly within families, who are children's first and most influential educators. As children participate in everyday life, they develop interests and construct their own identities and understandings of the world. As children transition to school, their social worlds expand to include a wider range of relationships particularly with children of a similar age. Children's learning in school-age care settings complements their learning at home and at school. In school-age care settings there is great importance placed on relationships and developing and strengthening children's talents and interests. Children learn to know, to do, to be, to live together and to transform oneself and society (UNESCO).



Figure 16.2: the relationships children have with one another are important. (Image by Seattle Parks is licensed under CC BY 2.0)

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16.2: Introducing the Framework



Figure 16.3: Belonging, being, and becoming foster children's learning. **(**Graphic by Anthony Flores is based on an image by the Department of Education and Training, which is licensed under CC BY 4.0**)**

Children's lives are characterized by belonging, being and becoming.

- Experiencing belonging – knowing where and with whom you belong – is integral to human existence. In school-age care, and throughout life, relationships are crucial to a sense of belonging. Children belong first to a family, a cultural group, a neighborhood and a wider community. Belonging acknowledges children's interdependence with others and the basis of relationships in defining identities. Belonging is central to being and becoming in that it shapes who children are and who they can become.
- Childhood is a time to be, to seek and make meaning of the world. Being recognizes the significance of the here and now in children's lives. It is about the present and them knowing themselves, building and maintaining relationships with others, engaging with life's joys and complexities, and meeting challenges in everyday life. During the school-age years, children develop their interests and explore possibilities. School-age care settings give children time and place to collaborate with educators to organize activities and opportunities meaningful to them.
- Children's identities, knowledge, understandings, capacities, skills and relationships change during childhood. They are shaped by many different events and circumstances. Becoming acknowledges children's ongoing learning and development. It emphasizes learning to participate fully and actively in society.



Figure 16.4: This Battle of the Bands at a school-age program provides an opportunity to belong, be, and become. (Image by Airman 1st Class Gustavo Castillo is in the public domain)

There are five desired outcomes for children (these are covered more later in the chapter):

- Children have a strong sense of identity
- Children are connected with and contribute to their world
- Children have a strong sense of well-being

- Children are confident and involved learners
- Children are effective communicators

Children's well-being and learning is at the core of the framework and comprises three interrelated elements: Principles, Practice, and Outcomes.

All three elements are fundamental to pedagogy and program decision-making in school-age care. A school-age care program encompasses all the interactions, experiences, routines and events, planned and unplanned, which occur in an environment designed to support well-being and foster children's learning and development. The emphasis is on the planned or intentional aspects of the program, which includes supporting spontaneous play and recreational experiences initiated by children.

Children are receptive to a wide range of experiences. What is included or excluded from the program affects how children learn, develop and understand the world.

Working in collaboration with children and in partnership with families, educators use the outcomes to guide their planning for children's well-being and learning. In order to engage children actively in learning, educators identify children's strengths and interests, choose appropriate strategies and design the environments. Program decision-making should be an ongoing cycle. This involves educators drawing on their professional knowledge, including their in-depth knowledge of children. In collaboration with children and families, educators carefully evaluate to inform further planning.

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16.3: Pedagogy

The term pedagogy refers to the holistic nature of educators' professional practice (especially those aspects that involve building and nurturing relationships), decision-making, and teaching and learning. When educators establish respectful relationships with children and families, they are able to work together to develop programs and experiences which are relevant to children and build on individual and group interests. These experiences create possibilities for children's own ideas and activities, allowing them to celebrate their own interests and friendships and express themselves in different ways.

Educators' professional judgements are central to their active role in facilitating children's learning. In making professional judgements, they weave together their:

- professional knowledge and skills
- knowledge of children, families and communities
- awareness of how their beliefs and values impact on children's well-being and learning
- personal styles and past experiences.

They also draw on their creativity, imagination and insight to help them improvise and adjust their practice to suit the time, place and context of learning.



Figure 16.5: This image of an educator and child engaged in an experience around drawing is pedagogy in action. (Image by Staff Sgt. Vesta Anderson is in the public domain)

Different theories about childhood inform approaches to children's learning and development. School-age care educators draw upon a range of perspectives in their work. Drawing on a range of perspectives and theories can challenge traditional ways of seeing children, facilitating learning, and encourage educators, as individuals and with colleagues, to:

- investigate why they act in the ways that they do
- discuss and debate theories to identify strengths and limitations
- recognize how the theories and beliefs that they use to make sense of their work enable but also limit their actions and thoughts
- consider the consequences of their actions for children's experiences
- find new ways of working fairly and justly.

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16.4: Principles

The following are five Principles that reflect contemporary theories and research evidence concerning children's play and learning. In school-age care settings, these principles underpin practice that is focused on collaborating with all children.

1. Secure, respectful, and reciprocal relationships

Mutually supportive relationships are very important in school-age care settings. Secure, respectful and reciprocal relationships between children, between children and adults, and amongst adults provide the foundation upon which the community in school-age care settings is established. When children feel safe, secure, respected and given appropriate responsibility they feel like valued members of the school-age care community. Children, who are supported to understand themselves in this positive way, experience a sense of belonging that nurtures the development of their self-esteem. Self-esteem is critical to children's capacity to develop positive images about their abilities, interests and personal future.



Figure 16.6: This educator is supporting the self-esteem of these children as she teaches them to play foosball.[1]

2. Partnerships

School-age children are involved in a range of activities throughout their day. Children have the potential to be affected by people, places and events. Families, schools and local communities contribute to the opportunities provided for this age group. Children feel positive when there are strong links between these settings and positive outcomes are most likely to be achieved when educators work in partnership with these contributors. Educators also recognize and explore community activities. These partnerships shape children's dispositions towards citizenship.

Educators recognize that families are children's first and most influential teachers. They create a welcoming environment where all children and families are respected and actively encouraged to collaborate with educators about program decisions in order to ensure that experiences are meaningful. Further, educators recognize the school setting and the significance of the learning and teaching opportunities provided for children. They are sensitive to the conduit role they provide between families and schools.



Figure 16.7: This is a school-age program administrator and parent. While the administrator can share about the program, the parent can share about the child and together they can create the best program for their child.[2]

Partnerships are based on effective communication, which builds the foundations of understanding about each other's expectations and attitudes, and build on the strength of each others' knowledge. In genuine partnerships, children, families, schools, communities and educators:

- value each other's knowledge
- value each other's contributions to and roles in children's life
- trust each other
- communicate freely and respectfully with each other

- share insights and perspectives with and about children
- engage in shared decision-making.

3. High Expectation and Equity

School-age care educators who are committed to equity believe in all children's capacities to access opportunities and succeed, regardless of diverse circumstances and abilities. They nurture children's optimism, happiness and sense of fun. Children progress well when they, their parents, educators and the community hold high expectations for achievements and contributions to society.

Educators recognize and respond to barriers to children achieving a positive self-identity, sense of purpose and positive view of personal future. In response, they challenge practices that contribute to inequities and make decisions that promote inclusion and participation of all children. By developing their professional knowledge and skills, and working in partnership with children, families, communities, other services and agencies, they continually strive to find equitable and effective ways to ensure that all children have opportunities to experience a sense of personal worth and achieve outcomes.



Figure 16.8: Differences in abilities may not always be as noticeable as a child that uses a wheelchair.[3]

4. Respect for Diversity

There are many ways of living, being and of knowing. Children are born belonging to a culture, which is not only influenced by traditional practices, heritage and ancestral knowledge, but also by the experiences, values and beliefs of individual families and communities. Being aware of and understanding diversity in school-age care means taking into account the context of different family practices, values and beliefs. Educators endeavor to understand the histories, cultures, languages, traditions, child rearing practices and lifestyle choices of families so they can better support children in their care. They value children's different capacities and abilities.

Educators recognize that diversity contributes to the richness of our society and provides a valid evidence base about ways of knowing. When school-age care educators respect the diversity of families and communities, and the aspirations they hold for children, they are able to nurture children's well-being and foster children's development. They make program decisions that uphold all children's rights to have their cultures, identities, abilities and strengths acknowledged and valued, and respond to the complexity of children's and families' lives.

Educators think critically about opportunities and dilemmas that can arise from diversity and take action to redress unfairness. They provide opportunities to explore similarities and differences and consider interdependence and how we can learn to live together.

A Culturally Responsive Environment

According to Matthew Lynch, in an Education Week blog post, one way that educators can incorporate cultural awareness is to "express interest in the ethnic background of your students**.** Encourage your students to research and share information about their ethnic background as a means of fostering a trusting relationship with fellow classmates. Analyze and celebrate differences in traditions, beliefs, and social behaviors. It is of note that this task helps European-American students realize that their beliefs and traditions constitute a culture as well, which is a necessary breakthrough in the development of a truly culturally responsive classroom. Also, take the time to learn the proper pronunciation of student names and express interest in the etymology of interesting and diverse names."[4]

5. Ongoing Learning and Reflective Practice

Educators continually seek ways to build their professional knowledge and develop learning communities. They collaborate with children, families and communities, and value the continuity and richness of local knowledge shared by community members.

Reflective practice is a form of ongoing learning that involves engaging with questions of philosophy, ethics and practice. Its intention is to gather information and gain insights that support, inform and enrich decision-making about children's well-being and development. As professionals, educators examine what happens in their settings and reflect on what they might change.

Critical reflection involves closely examining all aspects of events and experiences from different perspectives. Educators often frame their reflective practice within a set of overarching questions, developing more specific questions for particular areas of inquiry.

Overarching questions to guide reflection include:

- What are my understandings of each child?
- What theories, philosophies and understandings shape and assist my work?
- Who is advantaged when I work in this way? Who is disadvantaged?
- What questions do I have about my work? What am I challenged by? What am I curious about? What am I confronted by?
- What aspects of my work are not helped by the theories and guidance that I usually draw on to make sense of what I do?
- Are there other theories or knowledge that could help me to understand better what I have observed or experienced? What are they? How might those theories and that knowledge affect my practice?

A lively culture of professional inquiry is established when educators and those with whom they work are all involved in an ongoing cycle of review through which current practices are examined, outcomes reviewed, and new ideas generated. In such a climate, issues relating to program quality, environment design, equity and children's well-being can be raised and debated.



Figure 16.9: These educators are meeting to review their program. (Image by gdsteam is licensed under CC BY 2.0)

References

[1] Image by Pfc. David A. Walters is in the public domain

[2] Image by Cpl. Miranda Blackburn is in the public domain

[3] Image by Jet Fabara is in the public domain

[4] Lynch, M. (2014). 6 Ways Teachers Can Foster Cultural Awareness in the Classroom. *Education Week*. Retrieved from https://mobile.edweek.org/c.jsp?cid=25920011&item=http%3A%2F%2Fapi.edweek.org%2Fv1%2Fblogs%2F155%2F%3Fuuid%3D43288

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16.5: Practice

The principles of school-age care pedagogy underpin practice. Educators draw on a rich repertoire of pedagogical practices to promote children's learning by:

- adopting holistic approaches
- collaborating with children
- planning and implementing play and recreational activities
- acting with intentionality
- creating physical and social school-age care environments that have a positive impact on children's development, well-being and community-building
- valuing the cultural and social contexts of children and their families
- providing for continuity in experiences and enabling children to have successful transition
- using reflection and documentation about children's well-being and learning to inform and evaluate programs and to support children in achieving outcomes.

Holistic Approaches

School-age care educators take a holistic approach to their roles and responsibilities, recognizing the connectedness of mind, body and spirit. They focus attention on children's physical, personal, social, emotional and spiritual well-being as well as cognitive aspects of learning as it pertains to life-long learning. They are particularly concerned with how children's social and physical development and well-being influences capacity and potential to become effective citizens. Each outcome is viewed as being integrated and interconnected.

An integrated, holistic approach focuses on connections to the social and natural worlds. Educators foster children's capacity to value and respect the broader social environment and to be world-wise; and as well understand and appreciate the natural environment and the interdependence between people, plants, animals and the land.

Educators recognise the connections between children, families and communities and the importance of reciprocal relationships and partnerships. They see learning as a social activity and value collaborative activities and community participation.



Figure 16.10: These families work on a STEAM building kit.[1]

Each school-age care setting can be considered as a community itself, just as it is also part of the local and global community. As such, the school-age care community has the power to affect and be affected by issues within and outside the setting. School-age care educators consider children's needs including nutrition and safety. They see children as capable and responsible, and provide places for them to socialise and play with friends and to relax and have fun. School-age care settings are places to learn about self, others and the world – in other words learning about living and learning through living.

Collaboration with Children

School-age care educators are responsive to all children's strengths, abilities and interests. They value and build on children's strengths, skills and knowledge to ensure their well-being, motivation, and engagement in experiences. They respond to children's expertise, cultural traditions and ways of knowing, the multiple languages spoken by some children, particularly Aboriginal and Torres Strait Islander children, and the strategies used by children with additional needs to negotiate their everyday lives.

Responding to children's ideas and play forms an important basis for program decision-making. In response to children's evolving ideas and interests, educators assess, anticipate and extend children's ideas via open ended questioning, providing feedback, challenging their thinking and guiding their actions.



Figure 16.11: The school-age care program these children attend worked with the children to create this calendar.[2]

Responsive relationships are significant features of school-age care settings. This form of collaborative engagement is evidenced between educators and children, among children, between educators and parents and various stakeholders including schools, working to support children, families and the community.

Responsive relationships are strengthened as educators and children share decisions, respect and trust each other and learn together. Responsiveness enables educators to respectfully enter children's play and ongoing projects, stimulate their thinking and enrich their growth and development. Responsive relationships with families and the local community including schools, enables educators to establish safe and secure environments for children.

Learning through Play

Play and recreational activities provide opportunities for children to learn as they discover, create, improvise and imagine. When children play with other children they create social groups, test out ideas, challenge each other's thinking and build new understandings. Play provides a supportive environment where children can ask questions, solve problems and engage in critical thinking. Play can expand children's thinking and enhance their desire to know and to learn. In these ways, play can promote positive dispositions towards learning. Children's immersion in their play illustrates how play enables them to simply enjoy *being*.



Figure 16.12: Play dough is a great open-ended play experience.[3]

School-age care educators take on many roles in play and recreational activities with children and use a range of strategies to enrich development. They allow *time* and create *spaces* that encourage children to explore, build relationships, solve problems, create and construct. They also recognise spontaneous 'teachable moments' as they occur, and use them to build on children's experiences.

Educators actively support the inclusion of all children in play and recreational activities. They also help children to recognise when play is unfair and offer constructive ways to build a caring, fair and inclusive community.

In school-age care settings, there is a myriad of recreational and play experiences that foster children's development and encourages valuable learning. Play in school-age care settings will often differ from that of preschool-aged children. According to Piaget's theory of cognitive development, most school-age children will have moved, or be moving, into the concrete operational stage of development. As they get older, school-age children place more importance on peer interactions. 'Peers become partners who must learn to negotiate, compromise, share and defend themselves as equals' (Nixon & Gould 2005, p.173).

Play also provides children with opportunities to practice skills taught at school or learned at home, and to reinforce the learning that has occurred. The following table addresses the ways to incorporate different types of play into school-age care.

Table 16.1: Way to Incorporation Different Types of Play into School-Age Care

Types of Play	Ways to Incorporate Into School-Age Care

Types of Play	Ways to Incorporate Into School-Age Care
Dramatic Play	• Provide materials that will foster role play • Create spaces for dramatic play • Facilitate more complex, pre-planned dramatic productions for older children
Games with Rules	• Provide opportunities for team games and sports • Balance competitive games with experiences in which the whole group works towards a common goal • Be involved in card and board games to ensure they are positive experiences for children
Play Rituals	• Mixed-age groups are ideal places for these to be handed down • Provide space, materials, and time for games like hopscotch, four square, clapping games, chants, and hide-and-seek
Rough and Tumble Play	• Provide opportunities for this play with educator support and guidance to facilitate this • Consider structured experiences, such as pillow fighting, pool noodle sword fights, and sumo suits • Have a specific space with rules • Ensure close supervision (can act as umpire/referee)
Collecting	• Develop a policy and procedures on how collections can be traded (or not)
Excursions	• Provide opportunities for children to connect to their communities, have stimulating and different experiences, and test out skills in a different context

Intentionality

Intentionality refers to actions that are deliberate, purposeful and thoughtful. Educators who engage in intentional actions recognise that learning occurs in social contexts, and that interactions and conversations are vitally important for learning. They actively promote children's learning through worthwhile and challenging experiences and interactions that foster high-level thinking skills and they seize opportunities in activities and conversations to extend or affirm children's learning. They listen with intent to the conversations of children and use strategies such as modelling and demonstrating, open questioning, speculating, explaining, and engaging in shared thinking and problem solving to extend children's thinking and learning. Educators move flexibly in and out of different roles and draw on different strategies as the context changes. The documentation and monitoring of children's well-being and engagement with learning life skills and citizenship supports effective program planning. Intentionality utilises professional knowledge and strategies that reflect contemporary theories and research concerning children's play, recreational and learning.

School-age care educators are conscious of making the most of opportunities to follow up children's needs and interests. They make use of spontaneous 'teachable moments' to scaffold children's development. These incidental opportunities are significant and meaningful to children's *being* and *becoming* and achievement of the outcomes.



Figure 16.13: This educator noticed the child's interest in a nursery rhyme and is showing her the hand motions that go with it.[4]

Environments

School-age care environments are welcoming spaces when they reflect and enrich the lives and identities of children and families participating in the setting in response to their interests and needs. (See Appendix B for a sample school-age care program classroom.) Environments that support well-being and development are vibrant and flexible spaces that are responsive to the welfare and abilities of each child. They cater for different needs and interests and invite children and families to contribute ideas and questions. Educators can support engagement by allowing time for meaningful interactions, by providing a range of opportunities for individual and shared experiences, and by finding opportunities for children to go into and contribute to their local community.

Resources need to reflect the interests and capabilities of the children that are sharing the environment and be accessible to children so they can choose and be responsible for their actions. Access to digital technologies can enable children to locate global connections and resources, and encourage new ways of thinking and communicating.

School-age care environments and resources can also emphasise accountability for a sustainable future and promote children's understanding about their responsibility to care for the environment, day to day and for long-term sustainability. These spaces promote the development of life skills such as growing and preparing food, waste reduction and recycling.

School-age care settings are commonly located in a variety of venues and many are in shared facilities. The space should be flexible enough to allow for the range of activities necessary for children to participate in opportunities to achieve the outcomes. The environment should:

- Welcome the social nature of school-age children
- Provide an aesthetic beauty
- Be organized
- Provide rich possibilities and choices
- Invite children to undertake exploration and problem-solving
- Facilitate cooperation and negotiation
- Include quiet, comfortable spaces
- Incorporate structure and unstructured experiences
- Provide a range of recreational experiences
- Be designed to meet the needs of a diverse group of children (of differing ages, abilities, interests, and needs)
- Have spaces for both small and large group gathering/activities
- Encourage complex and creative thinking through open-ended materials
- Promote opportunities for sustained shared thinking and collaborative activities
- Recognize the importance of active play
- Include outdoor play in a natural environment and/or with natural materials
- Have an established routine
- Be more home-like; warm and cozy
- Nurture a sense of belonging
- Have a culture that sets the right tone
- Involve the rituals that are respectful and inclusive of all children and families
- Overcome obstacles (such as being in a shared space)



Figure

16.14: This image shows a school-age care environment that provides space for large group/active experiences (such as the karate they are doing), comfortable seating, and storage.[5]

Children report that they value a space:

- that is and makes them feel safe
- feels positive and friendly
- where you can talk about your feelings and seek help for social difficulties
- outside that provides gross motor experiences
- inside that is organized and arranged for a purpose
- in which equipment, materials, personal belongings, and creations are stored safely
- that is decorated by displaying their work and creations
- with some natural elements (trees, animals, water, and gardens)

Here are some quotes from children about their school-age spaces:

"School-age care makes me feel a positive feeling, like a feeling I get when I go to my grandma's, knowing someone really, really cares for me."

"It's comfortable and safe, it's warm in winter and you know you have someone there to stay with you."

Vignette

"Creating a Sensory Sensitive Environment"

Creating a sensory sensitive environment School-age care can be especially challenging for a child with a sensory processing disorder. Children are expected to process a wide range of sensory input in the environment simultaneously. For some children, inefficiencies in sensory processing impair their ability to do this. Therefore providing a space for children to retreat to and engage in experiences which help them to self-regulate is important for their successful inclusion in the school-age care setting.

After working with the Principle and Special Education Coordinator, visiting local elementary schools to look at their programs, talking to staff about resources and training, attending a workshop, we created a sensory sensitive and responsive environment which included beanbags, tents, music, lava lamps, weighted blankets, soft toys and a fish tank. The room has been used by children with autism spectrum disorder and children with developmental trauma. It has also proved a useful resource to engage children who may be reticent to attend school or the school-age care program.

Cultural Competence

Educators who are culturally competent respect multiple cultural ways of knowing, seeing and living. They celebrate the benefits of diversity and have an ability to understand and honour differences. This is evident in everyday practice when educators demonstrate an ongoing commitment to developing their own cultural competence in a two way process with children, families and communities.

Educators view culture and the context of family as central to children's sense of *being* and *belonging*, and to success in lifelong learning. Educators also seek to promote children's cultural competence.

Cultural competence is much more than awareness of cultural differences. It is the ability to understand, communicate with, and effectively interact with people across cultures. Cultural competence encompasses:

- being aware of one's own world view
- developing positive attitudes towards cultural differences
- gaining knowledge of different cultural practices and world views
- developing skills for communication and interaction across cultures.

Continuity and Transitions

School-age care settings are situated in complementary relationships with homes, schools and community spaces with different places and environments having their own purposes, expectations and ways of doing things. In learning life skills children draw on the understandings, skills and attitudes from the range of settings in which they engage. Educators work with children, families, other professionals and the broader community to ensure successful transitions between settings and that children feel secure and confident. They assist children to understand the traditions, routines and practices of the settings to which they are moving and to feel comfortable with the process of change.

Children are likely to engage with other children and the educators in school-age care settings over a significant period of time. Ensuring children have an active role in preparing for transitions helps them to feel motivated to contribute and become engaged

with the activities within settings. As children make transitions between settings (including school) educators from school-age care settings, schools and other children's services, support the transitions by sharing appropriate information about each child's capabilities and interests.



Figure 16.15: These children's daily transitions between school and school-age care requires riding the bus.[6]

Change can be stressful and some individuals find it more difficult dealing with change than others. Change can occur on a day-to-day basis when children must transition from school-age care to the classroom and then back to school-age care again, or it may occur on a larger scale when children change schools or classrooms or experience a new addition to their family.

In exploring and understanding change and effectively managing change, children need support in:

- learning that change is easier to cope with if it is expected and timely
- using previous experiences of change to help cope with current change
- establishing meaningful routines which help during times of change choosing friends to bridge the gap between the familiar and unfamiliar
- recognizing that at times of change emotions may be difficult to manage
- learning that new opportunities can come with change
- gaining some control in the changes in their lives
- helping to support others during change
- realizing that change is a part of life.

Evaluation for Well-being and Learning

Educators gather knowledge about children's well-being and learning as they reflect and engage in processes such as scanning, monitoring, gathering and analysing information about how children feel and what children know, can do and understand. It is part of an ongoing cycle that includes planning, documenting and evaluating children's well-being, development and learning.

It is important because it enables educators in partnership with children, families and other professionals to:

- plan effectively for children's well-being
- plan collaboratively with children
- communicate about children's well-being and development
- determine the extent to which all children are progressing toward realising outcomes and if not, what might be impeding their progress
- identify children who may need additional support in order to achieve particular outcomes, providing that support or assisting families to access specialist help
- evaluate the effectiveness of environments and experiences offered and the approaches taken to nurture children's well-being and to enrich children's development
- reflect on pedagogy that will suit the context and children.

Educators use a variety of strategies to collect, document, organise, synthesise and interpret the information that they gather about children's well-being and enrichment to evaluate the effectiveness of their programs. They search for appropriate ways to collect rich and meaningful information that depicts children's well-being and development in context, describes their progress and identifies their strengths, skills and understandings. When school-age care educators and children collaborate about their well-being and experiences they use approaches that have become powerful ways to make the process visible to children and their families, educators and other professionals.

Educators make many informal observations and assessments on an ongoing basis. The goal in evaluation is to integrate these into a more planned and formal process to be able to evaluate the overall goals of the setting, as well as individual children's needs and progress around well-being and learning.

One of the biggest challenges facing school-age care educators is efficient use of time and the need to document what is significant. What do you document? How do you know what is significant? You cannot possibly document everything and it tends to become meaningless if this occurs. Educators need to select the important moments. You can't write in detail about every child, and you can't do it every day! However, in time you can gather pictures and stories about all the children to give a better idea about who they are and their dispositions.



Figure 16.16: This educator is deep in thought about what she has observed.[7]

Educators are keen observers. They notice not only what children are doing, but also what and how they are playing and what they are saying during play. This puts them in a strong position to develop a program based on their observations. An emergent curriculum is one which:

- is child initiated, but framed by an educator: collaborative between child and adult
- builds on existing interests
- allows children to create, extend themselves and discover more
- is flexible, constantly developing and not done well in advance
- uses various forms of documentation.

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16.6: A Closer Look at the Outcomes

The five outcomes are designed to capture the integrated and complex well-being, development and learning of all children. They:

- Are broad and observable
- Acknowledge children in care have choices and opportunities to collaborate with other children and educators
- Recognize that children lean in a variety of ways and vary in their capabilities and pace of learning
- Respect that children engage with increasingly complex ideas and learning experiences, which are transferable to other situations
- Are influenced by
  - Each child
  - Educators' practices
  - The environment
  - Engagement with the family and community (including the school)
- Are achieved in different and equally meaningful ways
- Provide for collaboration between children educators

Let's look more closely at each outcome and ways that educators may support this outcome through their curriculum planning.

Table 16.1: Outcome 1 - Children Have a Strong Sense of Identity. *Belonging, being and becoming are integral parts of identity.*

Points	Educators facilitate this in their curriculum when they
Children feel safe, secure, and supported	• spend time interacting and conversing with children, listening and responding sensitively as they express their ideas and needs • acknowledge the importance of opportunities for children to relax through play and recreational
Children develop their autonomy, inter-dependence, resilience and sense of agency	• encourage children to make choices and decisions • maintain high expectations of each child's capabilities • motivate and encourage children to succeed when they are faced with challenges • provide time and environment for children to engage in both individual and collaborative pursuits
Children develop knowledgeable and confident self-identities	• acknowledge and understand that children construct meaning in many different ways • maintain and build on the knowledge, languages and understandings that children bring • share children's successes with families
Children learn to interact in relation to others with care, empathy and respect	• organize environments and spaces in ways that promote small and large group interactions and meaningful play and recreational

Table 16.2: Outcome 2 - Children Are Connected with and Contribute To Their World

Points	Educators facilitate this in their curriculum when they
Children develop a sense of belonging to groups and communities and an understanding of the reciprocal rights and responsibilities necessary for active community participation	• provide opportunities for children to investigate ideas, complex concepts and ethical issues that are relevant to their lives and their local communities • scaffold children's opportunities to participate and contribute to group activities • plan opportunities for children to participate in significant ways in group discussions and shared decision-making about rules and expectations and activities

Points	Educators facilitate this in their curriculum when they
Children respond to diversity with respect	• plan experiences and provide resources that broaden children's perspectives and encourage appreciation of diversity • explore the culture, heritage, backgrounds and traditions of children within the context of their community
Children become aware of fairness Children become socially responsible and show respect for the environment	• analyse and discuss with children ways in which stereotypes are portrayed • provide children with access to a range of natural materials in their environment • embed sustainability in daily routines and practices • discuss the ways the life and health of living things are interconnected

Table 16.3: Outcome 3 - Children Have A Strong Sense of Well-Being

Points	Educators facilitate this in their curriculum when they
Children become strong in their social and emotional well-being	• provide time and space for children to challenge and practice physical prowess • collaborate with children to plan and document their achievements and share their successes with their families
Children take increasing responsibility for their own health and physical well-being	• collaborate to plan energetic physical activities, including dance, drama, movement, sports and games • provide a range of active and relaxing experiences throughout the day • adjust transition and routines to take into account children's needs and interests

Table 16.4: Outcome 4 - Children Are Confident and Involved Learners

Points	Educators facilitate this in their curriculum when they
Children develop dispositions such as curiosity, cooperation, confidence, creativity, commitment, enthusiasm, persistence, imagination and reflexivity	• provide environments that are flexible and open-ended • encourage children to engage in both individual and collaborative explorative and reflective processes • model inquiry processes, including observation, curiosity and imagination, try new ideas and take on challenges
Children use a range of skills and processes such as problem solving, enquiry, experimentation, hypothesising, researching and investigating	• plan environments with appropriate levels of challenge where children are encouraged to explore, experiment and take appropriate risks • provide experiences that encourage children to investigate ideas, solve problems and use complex concepts and thinking, reasoning and hypothesizing • encourage children to communicate and make visible their own ideas and theories • collaborate with children and model reasoning, predicting and reflecting processes and language • provide opportunities for children to initiate and lead activities and experiences
Children transfer and adapt what they have learned from one context to another	• support children applying their learning in new ways and talk about this with them in ways that grow their understanding • support children to construct multiple solutions to problems and use different ways of thinking • plan for time and space where children discuss and reflect to see similarities and connections between existing and new ideas

Points	Educators facilitate this in their curriculum when they
Children resource their own learning through connecting with people, place, technologies and natural and processed materials	• provide opportunities for choice and collaboration • create possibilities for peer scaffolding • introduce appropriate tools, technologies and media and provide the skills, knowledge and techniques • provide resources that encourage children to represent their thinking

Table 16.5: Outcome 5 - Children Are Effective Communicators

Points	Educators facilitate this in their curriculum when they
Children interact verbally and non-verbally with others for a range of purposes	• include real-life experiences and resources to promote children's use of literacy and numeracy • allow children to direct their own play experiences with their peers
Children engage with a range of texts and gain meaning from these texts	• provide opportunities for children to follow directions from everyday texts such as recipe books, instructions for craft, rules for sports or games. • read and share a range of books, magazines and newspapers with children • provide a literacy-enriched environment including display print in home languages and English
Children collaborate with others, express ideas and make meaning using a range of media and communication technologies	• build on children's family and community experiences with creative and expressive arts • provide a range of resources that enable children to express meaning using photography, visual arts, dance, drama and music

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16.7: The Planning Cycle

A school-age program encompasses far more than just a list of planned experiences. So when planning, educators need to consider such things as the environment, the routines, the everyday resources, and even the skills and knowledge of the educators who work with the children.

As children explore relationships, resources and experiences in a thoughtfully planned environment, educators move through an ongoing cycle underpinned by reflective practice. It operates as a continuous 'cycle of inquiry' which includes stopping to think about how and why we're doing things the way we are, examining our answers to these questions from different perspectives, and using the deeper understandings we develop as a reference point for deciding what actions or changes we want to make. This current method of ongoing and cyclic planning is demonstrated in the figure below.



Figure 16.17: The Process of Program Planning in Ongoing and Cyclic.[1]

Deconstructing the Cycle

Question

Step 1 - Knowledge and beliefs

At the core of the program, planning is investigating our knowledge and beliefs and the practices that are linked to these. Educators constantly update their knowledge and associated practices by immersing themselves in contemporary research and theory. As everyone has different values and beliefs, educators in school-age care settings must regularly come together to share their knowledge and beliefs to develop their philosophy or enable a team approach. This philosophy or team approach should be based on theory and research, not just personal beliefs.

Step 2 - Strengths and Interests

Educators, like the children they care for, are diverse in their education, backgrounds and talents. This diversity means that educators can be responsive to a wide range of children's needs and interests. Different educators will bring different things to the program and there is no one prescribed role. This also models an important concept in school-age care services— that of inclusion: it is a place where everyone belongs.



Figure 16.18: What might be these boys' interests and strengths?[2]

When educators plan by combining children's strengths and interests with their knowledge and beliefs they can formulate both short term and long term goals for the service.

Plan

Step 3 - Plan the Environments

Educators should spend time planning their indoor and outdoor environments to achieve the outcomes of their vision, which is aligned with their philosophy and beliefs. School-age care settings should provide choice and flexibility and a range of engaging experiences, which will meet the needs of a range of different children in different age ranges. There should be opportunities for creativity, experimentation, and play. The environment should allow children to feel a sense of belonging, coupled with a sense of autonomy.

Step 4 - Define the Role of the Educator

Effective educators have a clear vision of their role when working with children. Educators in this context can be defined as practitioners whose primary function in school-age care settings is to plan and implement programs that support children's well-being, development and learning.

In their day-to-day duties, the educator has to undertake many varied roles, and the qualities and skills necessary for these roles, do not always come naturally with all individuals' personalities. Some educators may need some training or development to acquire some of these strengths. Training and practice can help educators develop these qualities just as skilled educators can help children develop these qualities. To be able to develop these qualities, however, educators need guided self-reflection and the support of an educational leader or mentor.

Table 16.6: Roles of Educators in School-Age Programs

Role	Description
Facilitator	Providing the right amount of stimulus to scaffold children's learning is a skill. Educators must, at times, also facilitate professional learning at meetings and engage with families to organize their involvement
Communicator	School-age care is a social setting. Effective communication is critical with a range of stakeholders, including children, families, other educators, schools and communities.
Coach	Educators assist children to develop a range of skills and provide opportunities for children to practice and perfect these. Educators are both intentional about this role, but also recognize and use teachable moments.
Mediator	School-age care settings are play-based with many choices, which invariably leads to disputes and differences.
Director	Although educators are primarily facilitators, there are times when clear direction is more appropriate. This includes situations that involve safety issues and other situations where there may be non-negotiable issues (such as bullying).

Role	Description
Model	An educator is always modelling. Children notice everything: learning is their job and they learn from everything you do and everything you don't do, everything you say and everything you don't say. Educators model skills from conflict resolution to hand washing and sun safety measures.
Planner	Educators must plan programs, budgets, professional development and communication systems.
Nurturer/Supporter	Educators celebrate or acknowledge each child's participation, efforts, gifts and talents, affirm children's sense of belonging, and provide physical and emotional support.
Advocate	Educators support children's right to play and advocate for appropriate space, facilities and resources
Observer	Educators combine what is seen and heard with what they know about the children. They observe the program, as a whole, identifying what is working and what needs improvement or adaptation.

Step 5 - Devise or Be Aware of Evaluation Methods

Knowing what evaluation methods you are going to use up front enables educators to have clear direction on what they are doing and why. Programs may have tools or processes that are required or you can use the five outcomes outlined in this chapter.

Evaluation is important because it enables educators to collaborate with children and examine the program with the outcomes in mind. This allows us to go deeper to discover how the programs are contributing to children's well-being, learning and development.

Step 6 - Plan Experiences

When planning experiences for children in school-age care settings, it is important to consider the outcomes (those listed in this chapter and/or those in the program's mission and philosophy). You must start with considering what your end goal is. There does not need to be a set curriculum to follow (although some programs may have this). But it is important that what is planned is responsive and allows for flexibility and creativity.

Settings may use a variety of approaches or theories (such as Multiple Intelligences, Emergent Curriculum, Reggio Emilia, or theme-based planning) to plan their experiences. What is important, however, is that educators recognize that best practice program planning is underpinned by the components of contemporary theory and research, educator skills and knowledge, collaboration with children and partnerships with family and culture.

At all times, the child must be central to program planning, so devising experiences around children's needs and their interests is a good starting place. One of the best ways to ensure curriculum is developmentally appropriate is to use an emergent approach. 'In an emergent approach the sources of curriculum are:

- children's interests such as discovering birds making a nest
- educators' interests such as artworks
- developmental tasks—emergent curriculum is responsive to children's development and learning
- things in the physical environment, including manufactured and natural resources
- people in the social environment, including staff, families and community members
- curriculum resource materials that can be adapted'

Children need stimulation and scaffolding in their learning and interests and this is where effective educators can work closely with children to notice their emerging interests and further this interest through responsive planning. Noticing the cultures and issues in the community are also stimuli for planning experiences.

Planning with a Holistic Approach

School-age care educators take a holistic approach to their roles and responsibilities recognizing the connectedness of mind, body and spirit. They focus attention on children's physical, personal, social, emotional and spiritual well-being as well as cognitive aspects of learning as it pertains to lifelong learning.

Our image of the whole child influences every interaction and experience. This image encompasses physical, personal, social, emotional, cultural, spiritual and cognitive aspects of the child.

A holistic approach does not prioritize one aspect of development or learning over another: it is the connectedness of body, mind and spirit, all of which are equally important. Nurturing the whole child is an important role for school-age care educators. Taking a holistic approach also means considering and incorporating into the program the culture of the families that it serves.

Act and Do

Step 7 - Implement Plans

Time to put the plan into action. Educators actively engage with and support all children to fully participate in a range of experiences. Educators should listen carefully and respond to children's voices and accommodate for spontaneity, natural curiosity, individual needs and interests.



Figure 16.19: This educator is engaged with these girls that are completing puzzles.[3]

Observe and Review

Step 8 - Assess and Evaluate Planned and Unplanned Learning Experiences

When reviewing and evaluating the program, it is important to assess both the planned experiences and unplanned experiences. After all, by definition, the program constitutes all of the interactions, experiences, routines and events.

Evaluation methods should have been established in step 5, so it is a matter of gathering the information and undertaking critical analysis and reflection to understand what this means and implement change as needed.

Evaluation should not simply consist of individual written work. Group reflection and discussion is a critical component of evaluation that then leads onto the next step in the cyclic process. Children should also play a critical role in evaluating aspects of the program including routines, experiences and resources.

Some questions to consider during this process include:

- How did the planned learning occur? What learning occurred?
- What unplanned learning occurred? Is this unplanned learning desirable? What does this mean?
- In what ways are you listening to your culturally diverse families? How are you demonstrating cultural competence?
- Consider time, space, resources:
  - Do we need more resources, either human resources or material ones?
  - Did we allow enough time? Was it the right time of the day?
  - Was there enough space? Was it the right space?
- What would have made it a better learning experience?
- How can we build on this?
- Does this experience tie in with any other experiences that were planned or unplanned?
- How do we/can we gather feedback from children, families and other educators to help evaluate the learning experiences?

Vignette

Recently our team was called on to practice being more reflective. We chose to reflect on our current sign in process.

We brainstormed and reflected on our current 'signing in' practice, which was as follows:

- educator sits at the staff desk and signs children in as they walk through the door
- other educators are greeting children at the door and asking children to put bags away in the bag area, with one educator waiting in the kitchen ready to serve food and remind children to wash their hands
- children walk in and greet the educator; normally the educator is busy signing

- some children come in all at once
- educators try to sign in as fast as they can: it can feel rushed, as there is often a line up
- some children say hello, some don't
- educators feel rude sometimes when they don't get to say 'hi' to all children initially
- late bus children arrive at 3:50pm: educators feel like these children aren't getting a nice greeting bags get left on the floor
- children sometimes hang around the sign-in desk wanting to talk to the educator
- signing in gets put on hold when the phone rings, or a parent wants to pay fees, then children get missed.

After analyzing our thoughts and reflections, we were concerned that this routine was not promoting a positive atmosphere where children felt welcomed, unhurried and valued.

We discussed the fact that some children are asked to move away from the sign-in desk because it is crowded. We are aware some children may not be getting sufficient attention. We want to make each child feel that they are welcomed when they arrive, so they feel a sense of belonging when they walk in the door. We also talked about how to get away from the 'line up' as it reminded us of being at school.

We want the children to feel that the after school care setting is different from school. We wanted to get some ideas from the children about signing in and how we could improve the transition from school to care.

An educator then held a meeting with the children to ask whether they had any ideas on how to make signing in fun and easier for them. The children came up with:

- signing ourselves in
- one sign-on for under-nines and one sign in for over-nines
- if you don't say 'hi' to the educator and get signed in, you go back out and try again
- sign your name on the white board
- stick your own piece of paper on your name to say you are there
- tick your own name off.

Once we had gathered this information, we decided to involve the children by signing their name in on the white board, as the white board is quite far away from the staff desk. It allows the children to walk in, say 'hi' to all the educators, put bags away, then make their way to the white board and write their own name on it.

We tried the new system for a week. An educator wrote on the white board before any of the children arrived: 'New sign in. Write your own name'. The educators voiced some concerns: 'What if it doesn't work? How will the shorter children reach? What if there is a line up?'

On the first day, the first child arrived and the educator explained the new system. He raised his eyebrows and said 'OK', then wrote his name and the time he arrived. The other children seemed happy to copy what the children in front of them were doing. They seemed to enjoy having the responsibility of signing themselves in. The educator in the quiet area would then check the board and sign off the children on the daily booking sheet.



Figure 16.20: The children signed themselves in using the white board.[4]

When the children got picked up, they would go to the white board and wipe their names off to say they have left or they would write 'left' next to their names. Overall the children enjoyed this system and the signing-in process was less crowded. It allowed educators to talk to each child as they came into the service and it promoted continuous flow.

As the week went on the children were walking into after school care with a smile, saying 'hello, I know what to do' and they would go to the white board and sign their name. The sign-in educator supervised while taking the time to have a conversation with all children, asking them about their day and following up on conversations from previous interactions. The children reported that they liked the new system better.

> As a result of this change of practice, we have decided to continue the process this way. It has improved and relaxed the process, the room is quieter, and runs smoother. The children seem to co-operate more with the process because it is up to them to complete the task.

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16.8: Conclusion

School-age children experience learning in a wide range of settings. Family, school and the community (including school-age care settings) provide diverse opportunities for children to explore relationships and ideas, and build competence and skills. The diversity in family and community life means that school-age children experience belonging, being and becoming in many different ways. They bring their diverse experiences, perspectives, expectations, knowledge and skills to their learning.

Children's learning is dynamic, complex, and holistic. Physical, social, emotional, personal, spiritual, creative, cognitive, and linguistic aspects of learning are all intricately interwoven and interrelated.

Play is a context for learning that:

- allows for the expression of personality and uniqueness
- enhances dispositions such as curiosity and creativity
- enables children to make connections between prior experiences and new learning assists children to develop relationships and concepts
- stimulates a sense of well-being.

Children actively construct their own understandings and contribute to others' learning. They recognize their agency, capacity to initiate and lead learning, and their rights to participate in decisions that affect them, including their learning.



Figure 16.21: These children are engaged in a STEM activity at their school-age program.[1]

Recreational experiences constructed by children and supported by informed educators promote children's dynamic, complex and holistic learning. Children's happiness, optimism and sense of fun are dispositions that are significant to their emotional well-being and resilience. In school-age care settings, children's sense of responsibility for their learning is co-determined and skills and attitudes towards life-long learning are consolidated. Children actively involved in community building develop common interests and learn about citizenship.

Viewing children as active participants and decision-makers opens up possibilities for educators to move beyond preconceived expectations about what children can do and learn. This requires educators to respect and work with children's unique qualities, abilities and interests. When children are given choices and control, they experience connections between actions and consequences.

Educators' practices and the relationships they form with children and families have a significant effect on children's sense of identity and well-being which impacts on children's involvement and success in learning. Children thrive when families, educators and the wider community (especially schools) work together in partnership to support children's well-being and learning.[2]

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SECTION OVERVIEW

Section V: Making Children's Learning Visible

17: Documentation and Assessment

17.1: Documentation
17.2: Assessment
17.3: Conclusion
17.4: Working with Families

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CHAPTER OVERVIEW

17: Documentation and Assessment

Learning Objectives

By the end of the chapter, you should be able to:

- Review criteria to determine when and what to document
- Explain the purposes of documentation
- Justify documenting children's play
- Describe different methods of documenting children's learning
- Relate how to respect the rights of children and families when documenting
- Discuss the role of assessment
- Describe how the Desired Results Developmental Profile can be used to assess children
- Summarize important considerations in assessment during early childhood
- Explain the importance of working with families when documenting and assessing children

Documenting and assessing all the children in your care allows you to gradually build up a comprehensive picture of each child's interests, strengths and relationships, as well as an insight into areas they may be avoiding or skills they need help to develop. It will give you a clearer picture of the social interactions, creative ideas and the concerns of the children in your program. It will take some time and a concerted team effort to gather documentation on all the children in your care— but there are benefits. Having this kind of profile of all the children in your service will allow you to plan curriculum that develops these interests and builds up these skills over time. [1]

17.1: Documentation

17.2: Assessment

17.3: Conclusion

17.4: Working with Families

References

[1] Australian Government Department of Education (n.d.) Educator My Time, Our Place. Retrieved from files.acecqa.gov.au/files/National-Quality-Framework-Resources-Kit/educators_my_time_our_place.pdf

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17.1: Documentation

Knowing What to Document

One of the biggest challenges facing early childhood educators is efficient use of time and the need to document what is significant. What do you document? How do you know what is significant? You cannot possibly document everything and it tends to become meaningless if this occurs. Educators need to select the important moments. You can't write in detail about every child, and you can't do it every day! However, in time you can gather pictures and stories about all the children to give a better idea about who they are and their dispositions.



Figure 17.1: Educators can use their observations to create high quality curriculum.[1]

Educators are keen observers. They notice not only what children are doing, but also what and how they are playing and what they are saying during play. This puts them in a strong position to develop a program based on their observations.

When trying to determine when and how to document, ask yourself:

1. Why am I recording this—what is meaningful/significant?
2. What is the learning occurring?
3. How can we extend on this?
4. How does it link to the outcomes we are measuring?[2]

Purposes of Documentation

Documentation serves different purposes at different times. The criteria for what counts as quality documentation depends on the context in which you are using it. What seems to remain constant is that quality documentation focuses on some aspect of learning —not just 'what we did.' It prompts questions and promotes conversations among children and adults that deepen and extend learning.

There are three good reasons to document observations in school age care:

1. to inform program planning
2. to deepen our understanding of the children
3. to make learning visible and share it with others.[3]

To Inform Curriculum Planning

Documentation makes children's and educators' thinking visible. It allows children and educators to revisit it, reflect, uncover meaning and plan future directions. A program direction often comes from a simple moment spent in conversation or play with a child: a moment which makes us pause and reflect.

The Power of Ordinary Moments

Ordinary moments are the pages in the child's diary for the day. If we could resist our temptation to record only the grand moments, we might find the authentic child living in the in-between. If we could resist our temptation to put the children on a stage, we might find the real work being done in the wings. If we understood the great value in the ordinary moments, we might be less inclined to have a marvellous finale for a long term project. We appeal to educators everywhere to find the marvel in the mundane, to find the power of the ordinary moment![4]

(Forman, Hall & Berglund, 2001, p.52-3)

Before documenting, you should ask: Why am I documenting this? How is this significant? If there is not a worthwhile reason, there may not be good reasons for recording.

There are different ways in which observations can be recorded, such as:

- note pads carried around by individuals
- sticky notes which may be gathered over a period of time and used for reflection
- clipboards
- group journals/communication books
- video recorder
- camera
- voice recorder
- poster/spreadsheet

The documentation taken for program planning can be recorded in one place by all educators or it can be recorded individually (such as in notebooks) and brought together with the group during discussion.

Notes just need to act as a visual reminder to stimulate thought and plans for planning.[5]



Figure 17.2: Notes are good reminders.[6]

Pause to Reflect

Think of yourself in the classroom with young children. What might you want to capture with documentation? Why? What methods do you think would best capture these?

Reflective Thinking and Discussion to Deepen Our Understanding of the Children

Jotting down observations for later discussion helps educators, particularly new and inexperienced ones, reflect and analyse, which can lead to deeper understanding for the educators in the setting.

These observations may be recorded in a variety of ways, such as quick summaries on sticky notes, captioned photographs, or entries in child portfolios. What is important, however, is the fact that the learning has been made visible and the educators may share knowledge about this and question and extend it further. True collaborative planning can occur when educators share recorded observations. Once again there are a variety of ways to undertake this, but group discussion during meeting time is an ideal way to promote this deeper understanding and shared wisdom.



Figure 17.3: Some classrooms use tablets to capture photographs to document.[7]

Encourage all educators in your setting to question why children's play is significant. The thinking is more complex and needs to go beyond just thinking 'they are playing in the home corner again'. Ask yourself why the children are choosing particular role-playing scenarios. What inspired it? Who is involved? Does it reflect an event or experience in a child's life that they are choosing to act out in play? Is someone trying to work through some emotions? Are they undertaking family life lessons at school? What meaning are they getting from it? What misinterpretations are there? How can I assist their learning in this area? How can we build on this learning?



Figure 17.4: How might this family child care provider answer the questions just posed?[8]

Curtis and Carter (2008) suggest examining children's play from three angles:

- The child's story (Why are they playing this? What fascinates them about this? What is their previous experience? How can I encourage them to show more?)
- The learning story
- The educator's story (What excites you? What are you curious about? How can you find out more?)

During training, many educators have been encouraged to look at learning and developmental aspects; however, to engage in deeper thinking, it is important to consider all three perspectives.[9]

Making Learning Visible and Sharing it With Others

Educators may make some documentation visible to showcase the learning which has occurred and to find ways to connect with others. When you document a child's story you give the child a voice, and have a valuable tool for opening a meaningful discussion with that child's family. It is also a means to engage with other educators, such as teachers in the child's school. Children also love to go back and reflect on documented moments.

There are numerous ways to document for others to see. Some options include:

Wall Displays/Documentation Panels

Documenting and displaying the children's project work allows them to express, revisit, and construct and reconstruct their feelings, ideas and understandings. Pictures of children engaged in experiences; their words as they discuss what they are doing, feeling and thinking; and the children's interpretation of experience through the visual media are displayed as a graphic presentation of the dynamics of learning. Documented wall displays or documentation panels is a Reggio Emilia concept which aims to place emphasis on the process, not just the end product.



Figure 17.5: These documentation panels are in a classroom that is inspired by the Reggio Emilia approach.[10]

Making images of learning visible and being together in a group is a way to foster group identity and learning. This type of documentation promotes conversation or deepens understanding about one or more aspects of a learning experience. It can serve as a memory experience, allowing children and adults to reflect on, evaluate, and build on their previous ideas. Sharing documentation with learners can take many forms: a photocopied sheet of paper, words, scrapbook pages, or a carefully arranged panel.

Learning Stories

A learning story is an alternative to other forms of observations. Margaret Carr developed this narrative form of assessment to meet documentation requirements in New Zealand to demonstrate knowledge and understanding of each child. In learning stories, educators capture significant moments throughout the day with photos and then tell the story of the child's learning (Carr, 2001).



Figure 17.6: This is a portion of a learning story about 11 month-old Caleb.[11]

Portfolios

A portfolio could document a child's development over time and highlight each child's learning story. The portfolio belongs to the child and contains their work and their stories. Portfolios are as individual as the children and they don't follow a prescribed pattern or format, they can just evolve. School age care is a social setting and children's portfolios should contain photos and stories of their friends, but be mindful of children and families who do not wish their photos to be included in others' folders and find strategies to deal with this. Portfolios and scrapbooks are long-term projects which can be undertaken jointly by the children and educators.



Figure 17.7: Here are two portfolios and some items inside of them including a writing sample, photographs, a drawing with dictation, a painting, an anecdote with images tied to DRDP measures, and self-portraits.[12]

Vignette

The educators at our school age care decided they wanted to improve the basic child files and develop new and improved individual child portfolios. Some of the educators attended professional development sessions and spoke to other services to get feedback on how others set up portfolios.

We looked at scrap books, display books, worksheets and folders. We liked the idea of a display book into which we could easily slip pages and photos. We also liked the idea of a scrap book where children could paste, draw, collage and write and which they could make quite personal.

We considered developing a ‘contents page’, but thought not all children would be interested in completing all the experiences in the contents. We also had a huge selection of worksheets including about me, family trees, self-portraits, birthdays, special things, coat of arms, pets, friends and when I grow up.

Educators decided that, rather than a standard format, they wanted each child’s portfolio to be unique to the individual. We wanted choice and variety: written work, photos, typed stories, collage, artwork, scrapbooking.

As space is limited at our service, we wanted something that was easy to store so that the children could easily find their portfolio without flicking through or moving other children’s portfolios.

The solution:

- one display book per child
- type each child’s name on the labelling machine and stick it on the spine of the display book
- put the display books in alphabetical order in plastic tubs
- provide each child with an notebook and place this in the front of the display book to be used as a scrap book/journal
- copy all the different sheets we have sourced and place each in a plastic pocket in a folder so that children can ‘choose’ what they want to include in their portfolio
- set up a folder for each child on the children’s laptop so that children’s photos and learning stories can be stored and easily accessed.



Figure 17.8: The children could access their learning stories on the laptop.[13]

The result:

- The children were so excited to have their own personal, individual portfolios.
- The children are able to easily access their portfolios.
- The children can browse through the worksheet folder and choose what they would like to do.
- Some children have stuck records of other experiences they have done at school age care in their
- journals/scrap books.
- Some children have shown their portfolios to their families.
- Educators have gone through all our ‘old’ photos and placed them in the new child portfolios. Children and families have enjoyed revisiting past experience at school age care by looking at the photos from previous years.
- Some children have sat down with educators to share their portfolios and this has assisted educators to get to know the children.

We decided that in the future we would:

- encourage children to self-initiate what items they want to file in their portfolio
- print a list of all children that attend school age care. Each term, check each child’s portfolio and document what they have included.
- encourage those that have not filed anything to complete a sheet or learning story. Educators could place a photo in the child’s portfolio and then ask the child to tell the educator about that experience and how they felt.
- ask the children what they want to include in their portfolios. What other resources can educators provide?

look at child portfolios at a staff meeting and evaluate how effective our new system has been and where we can improve. How can we keep the children motivated once the novelty wears off?[14]

Pause to Reflect

What are pros and cons to the different ways of documenting children presented here? Why might an educator want to use each? What might be some drawbacks?

What are other types of documentation to consider that weren’t provided here?

Children’s Voice in Documentation

Educators can gain valuable insight by creating a culture of listening to and working collaboratively with children. How do you know what the children in your care want from their time in care?

There is a strong synergy between children’s being and belonging and their active involvement in democratic processes, and having an impact on what the environment, programs and partnerships look, sound and feel like. The information you gather from children is integral to the development of a program that meets their needs and interests.



Figure 17.9: The discussion these school-aged children are having is a great way to get their insight.[15]

A range of ways can be used to gather and document children's voices in school age care settings including:

- 'All about me' sheets, where children and families document important information about themselves, such as likes, dislikes, hobbies and such
- setting time to have informal and formal discussions with children
- children interviewing other children
- suggestion boxes and surveys
- recording children's comments and thoughts about experiences as part of the evaluation process
- children's portfolios
- creating opportunities for joint planning, including setting up of the care environment
- photographing children and asking them to write about the experience
- children writing their own learning stories
- joint problem-solving opportunities.

Careful consideration needs to be given to children who may be non-verbal or have difficulty expressing themselves to ensure their voices are heard in your care setting.[16]

Ethical Considerations

When documenting children's learning, educators must be respectful of the rights of children and families. Permission must be sought from children and families before information is collected and documented. Children and families must have the right to privacy, be informed about how the information will be used and have a choice about participating.

MacNaughton, Smith and Lawrence suggest that to protect and enhance children's rights through consultation with them, adults should ensure that children have:

- safe spaces in which to share their ideas without challenge or critique
- privacy: ask children for permission to document/ record what they say
- ownership of their ideas: ask children to display and/ or share their ideas and understandings with others
- appropriate equipment with which adults can care for children's work in ways that shows that their voice is important and respected

Some further questions to consider when thinking about documentation include:

- What does observing, documenting and evaluating look like in your setting?
- How do you involve children in the process?
- How do you involve families in the process?
- How do you know what is valued or expected for children within the family and cultural context?
- Do you assess children at an individual level? Do you think this is important in your setting?
- How do you define 'regular' in the context of children who attend 'regularly'?
- What methods or tools would you use?
- Does the documentation focus on learning, not just something you did?
- Does the documentation promote conversation or deepen understanding about some aspect of learning?
- What documentation do you collect which is appropriate to share/display?
- Does the documentation focus on outcomes for children and not just what the educators are doing?
- Does the documentation focus on the process as well as the product(s)?
- Does the documentation clearly communicate the aspects of learning you consider most important?
- Does your display documentation have a title?

- Is the documentation presented in a way that draws the viewer in?



Figure 17.10: This documentation is down at the child's level in the space where building materials are stored. What might have been the educators' rationale for this?[17]

Documentation does not need to be repeated. A narrative story with photos can be shared at a staff meeting, with input from all educators about links, questions, and where ideas may be built upon. The story can then be displayed in the room (as a work in progress or perhaps with an end product if there is one). The child can show people who are important to them the documentation and it will open up discussion with families, children and educators. Once it has been displayed for a period of time it can be filed away in the child's portfolio, where it can be revisited at any time. It is also available if an assessor wants to look at it during a visit as well. So this one piece of documentation serves many purposes.[18]

References

[1] Image by Ekow Ackerson is licensed under CC BY-SA 4.0

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17.2: Assessment

Early childhood education programs should have outcomes that relate to their philosophy and the objectives they have for children. As we examine the cycles of curriculum planning that we have completed, we can use that data to further inform curriculum planning and assess children's developmental progress.[1]

Assessing to Inform Curriculum Planning

The challenge for teachers and others who plan early childhood curriculum is to determine how much assessment data to gather and how to use the resulting information. The key is to organize a sustainable infrastructure that facilitates gathering meaningful information on every child regularly and systematically.

1. The best instructional assessment information is collected frequently and used continuously to inform curriculum and instruction decisions. Young children learn quickly, and regular monitoring of progress is necessary to document incremental improvements in skills and behaviors. Teachers and other adults are more likely to collect, interpret, and apply assessment data if the process is built into the daily classroom schedule and responsibilities.
2. Assessment to inform and monitor instruction is most accurate if multiple sources are considered and multiple methods used. Because much of young children's learning and development occurs outside classrooms, it is important that competencies and progress are considered in all contexts and environments. The richest results are obtained when the perspectives of parents, caregivers, teachers, specialists, and children themselves are combined. Assessment instruments that gather information by observation and report, and include components for parents to report on children's developmental and academic progress, provide a helpful structure.
3. Methods used to collect instructional assessment information should resemble ongoing instruction and the interactions of home, child care centers, and classrooms. There are valid concerns about the negative effects of testing on young children. One of the biggest advantages of assessment to inform and monitor instruction is that the process seldom necessitates individualized testing. Adults should be able to collect instructional assessment data using the same experiences designed to facilitate preschool learning in group activities, support parent/infant interactions at home, or provide instruction in primary classrooms.
4. Assessment instruments should be criterion-referenced with items that reflect functional skills. Actual assessment items and administration procedures will vary depending on whether the focus is in development or early academics. Nonetheless, repeated measures of performance across a sequence of skills that reflects curriculum goals provides the best documentation of children's progress. Assessment to inform and monitor instruction is only as good as the curriculum and instruction young children receive. Assessing what we teach and teaching what we assess is essential for meaningful instructional assessment.
5. Instructional and classroom assessment instruments should ideally reflect a logical teaching sequence. Assessments to inform and monitor instruction are most useful if items are organized in a sequence that reflects major skills in the curriculum, along with prior knowledge and/or prerequisite skills. This organization maps the curriculum for teachers and provides guidance for selection of subsequent learning goals.
6. Instructional assessment instruments and procedures must be culturally and linguistically relevant. If the basic skills represented in early developmental and academic curricula are functional and appropriate for young children, instructional assessments have the advantage of being able to incorporate familiar materials, people, routines, and important events of a child's life. If using an assessment in which items are culturally inappropriate, it is vital that those are revised, and parents can suggest more familiar and appropriate materials and behaviors. It is especially important that English Language Learners not be penalized by materials or directions that confuse cultural and language differences with cognitive or academic delays.[2]



Figure 17.11: If materials, tasks, interactions, or the language being used is unfamiliar to a child, caution must be taken before making judgments about their development.[3]

Pause to Reflect

What stood out to you about assessing to inform curriculum planning? What did you most agree with? What got your thinking a bit more? Was there anything you disagreed with or are unsure about?

Assessing Children

Each child and group of children will be at different points in their journey towards these program's outcomes. Children come with a range of interests, understandings, family and community experiences, developmental pathways, temperaments, and dispositions.



Figure 17.12: The way these infants are engaging in this literacy interaction with their caregiver may show their temperament and dispositions at work.[4]

Educators use their observations of children and feedback from children and families, as well as evaluations of learning and wellbeing to analyse and assess what children are able to do and areas for further development or progression. Learning stories, educator reflections, journals and child portfolios are strategies to not only document experiences, but also help educators become more familiar with the outcomes as they make frequent links from their documentation to the outcomes they have for children.[5]

Desired Results Developmental Profile

One tool that educators can use to assess the development of children is the *Desired Results Developmental Profile* (DRDP). The DRDP is part of the Desired Results System developed by the California Department of Education (CDE), Early Learning and Care Division to help improve program quality in early care and education programs across California. The Desired Results (DR) System was developed based on the following six Desired Results:

Desired Results for Children

DR 1: Children are personally and socially competent.

DR 2: Children are effective learners.

DR 3: Children show physical and motor competence.

DR 4: Children are safe and healthy.

Desired Results for Families

DR 5: Families support their child's learning and development.

DR 6: Families achieve their goals.

The DR system implemented by the CDE is a comprehensive approach that facilitates the achievement of the Desired Results identified for children and families. California is one of the very few states in the nation that has developed its own system designed specifically for measuring child progress toward desired outcomes. The DRDP (2015) includes a Preschool View and an Infant/Toddler view to provide a developmental continuum to assess children from birth to kindergarten. And the DRDP-SA (2010) assesses children in school-age programs.

The DRDP (2015) (Level 5)

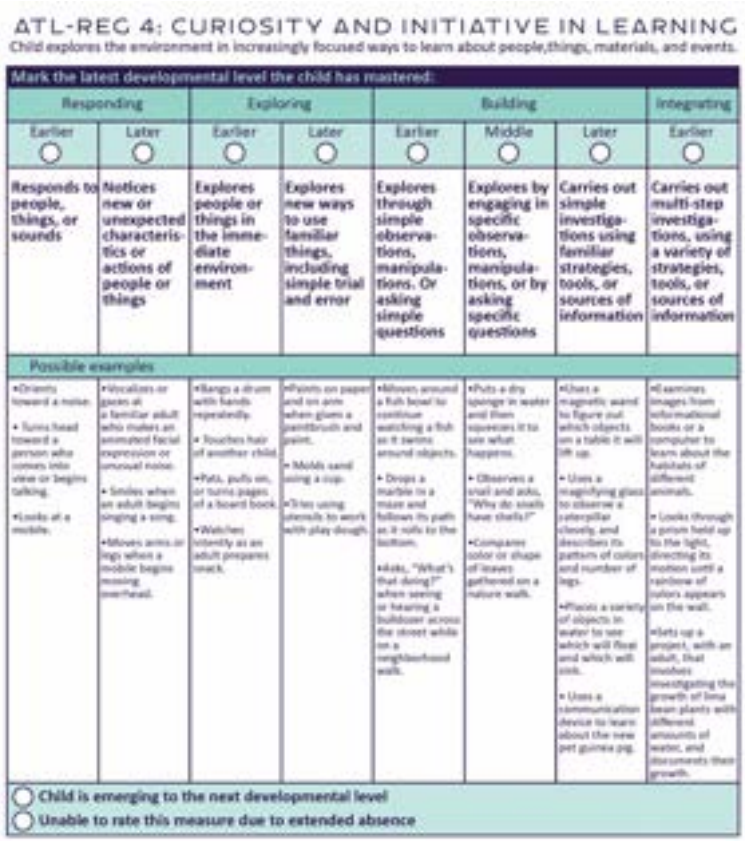
The DRDP (2015) is:

- administered in natural settings through teacher observations, family observations, and examples of children's work
- designed for use with all children from early infancy up to kindergarten entry, including children with Individualized Family Service Plans (IFSPs) and Individualized Education Programs (IEPs).
- Is aligned with all volumes of the California's Infant/Toddler and Preschool Learning and Development Foundations, the Common Core Standards, and the Head Start Child Development and Early Learning Framework

- takes into consideration the specific cultural and linguistic characteristics of California's diverse population of young children, with specific consideration for children who are young dual language learners
- has the goal of ensuring that all children have the opportunity to demonstrate their knowledge and skills

There are 56 measures that are organized into the following eight domains in the DRDP (2015):

- Approaches to Learning-Self-Regulation
- Social and Emotional Development
- Language and Literacy Development
- English-Language Development (for dual language learners)
- Cognition, including Math and Science
- Physical Development-Health
- History-Social Science
- Visual and Performing Arts



ATL-REG 4: CURIOSITY AND INITIATIVE IN LEARNING

Child explores the environment in increasingly focused ways to learn about people,things, materials, and events.

Mark the latest developmental level the child has mastered:

Responding		Exploring		Building			Integrating
Earlier ○	Later ○	Earlier ○	Later ○	Earlier ○	Middle ○	Later ○	Earlier ○
Responds to people, things, or sounds	Notices new or unexpected characteristics or actions of people or things	Explores people or things in the immediate environment	Explores new ways to use familiar things, including simple trial and error	Explores through simple observations, manipulations. Or asking simple questions	Explores by engaging in specific observations, manipulations, or by asking specific questions	Carries out simple investigations using familiar strategies, tools, or sources of information	Carries out multi-step investigations, using a variety of strategies, tools, or sources of information
Possible examples							
•Orients toward a noise. • Turns head toward a person who comes into view or begins talking. •Looks at a mobile.	•Vocalizes or gazes at a familiar adult who makes an animated facial expression or unusual noise. • Smiles when an adult begins singing a song. •Moves arms or legs when a mobile begins moving overhead.	•Bangs a drum with hands repeatedly. • Touches hair of another child. •Pats, pulls on, or turns pages of a board book. •Watches intently as an adult prepares snack.	•Paints on paper and on arm when given a paintbrush and paint. • Molds sand using a cup. •Tries using utensils to work with play dough.	•Moves around a fish bowl to continue watching a fish as it swims around objects. • Drops a marble in a maze and follows its path as it rolls to the bottom. •Asks, "What's that doing?" when seeing or hearing a bulldozer across the street while on a neighborhood walk.	•Puts a dry sponge in water and then squeezes it to see what happens. • Observes a snail and asks, "Why do snails have shells?" •Compares color or shape of leaves gathered on a nature walk.	•Uses a magnetic wand to figure out which objects on a table it will lift up. • Uses a magnifying glass to observe a caterpillar closely, and describes its pattern of colors and number of legs. •Places a variety of objects in water to see which will float and which will sink. • Uses a communication device to learn about the new pet guinea pig.	•Examines images from informational books or a computer to learn about the habitats of different animals. • Looks through a prism held up to the light, directing its motion until a rainbow of colors appears on the wall. •Sets up a project, with an adult, that involves investigating the growth of lima bean plants with different amounts of water, and documents their growth.

○ Child is emerging to the next developmental level

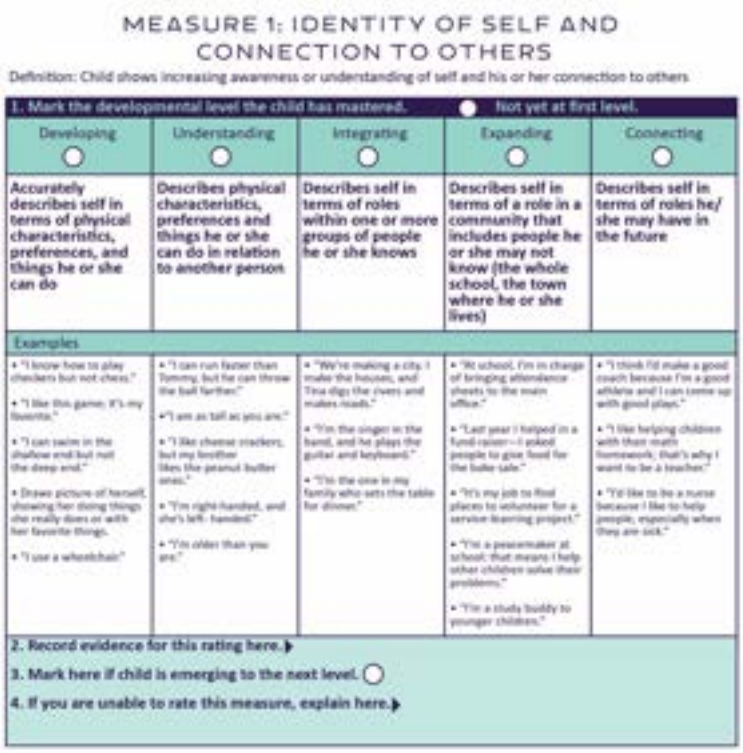
○ Unable to rate this measure due to extended absence

Figure 17.13: Here is a graphic based on one of the measures from the DRDP (2015).[6]

The DRDP-SA (2010)

The DRDP-SA is designed for teachers to observe, document, and reflect on the learning, development, and progress of all children in a before- or afterschool program. The assessment results are intended to be used by the teacher to plan curriculum for individual children and groups of children and to guide continuous program improvement. It consists of 13 measures divided into these two domains:

- Self and Social Development
- Health



MEASURE 1: IDENTITY OF SELF AND CONNECTION TO OTHERS

Definition: Child shows increasing awareness or understanding of self and his or her connection to others

1. Mark the developmental level the child has mastered. ○ Not yet at first level.

Developing ○	Understanding ○	Integrating ○	Expanding ○	Connecting ○
Accurately describes self in terms of physical characteristics, preferences, and things he or she can do	Describes physical characteristics, preferences and things he or she can do in relation to another person	Describes self in terms of roles within one or more groups of people he or she knows	Describes self in terms of a role in a community that includes people he or she may not know (the whole school, the town where he or she lives)	Describes self in terms of roles he/she may have in the future
Examples				
• "I know how to play checkers but not chess." • "I like this game. It's my favorite." • "I can swim in the shallow end but not the deep end." • Draws picture of herself, showing her doing things she really does or with her favorite things. • "I use a wheelchair."	• "I can run faster than Tommy, but he can throw the ball farther." • "I am as tall as you are." • "I like cheese crackers, but my brother likes the peanut butter ones." • "I'm right-handed, and she's left- handed." • "I'm older than you are."	• "We're making a city. I make the houses, and Tina digs the rivers and makes roads." • "I'm the singer in the band, and he plays the guitar and keyboard." • "I'm the one in my family who sets the table for dinner."	• "At school, I'm in charge of bringing attendance sheets to the main office." • "Last year I helped in a fund-raiser—I asked people to give food for the bake sale." • "It's my job to find places to volunteer for a service-learning project." • "I'm a peacemaker at school; that means I help other children solve their problems." • "I'm a study buddy to younger children."	• "I think I'd make a good coach because I'm a good athlete and I can come up with good plays." • "I like helping children with their math homework; that's why I want to be a teacher." • "I'd like to be a nurse because I like to help people, especially when they are sick."

2. Record evidence for this rating here. ▸

3. Mark here if child is emerging to the next level. ○

4. If you are unable to rate this measure, explain here. ▸

Figure 17.14: Here is a graphic based on one of the measures from the DRDP-SA (2010).[7]

Assessment through the DRDP

When children are assessed using the DRDP, the educator uses the information they have gathered through observation and family perspectives to assess each measure. Each measure is defined, has developmental levels in a developmental progression from earlier to later levels of development, descriptors for each developmental level, and examples of observable behavior that show mastery at each developmental level. Educators determine the latest developmental level the child has mastered and mark it on the rating scale.[8]

Pause to Reflect

Why might a program choose to use the DRDP to assess children? What are benefits to this type of assessment for each child? What are some drawbacks or challenges that educators might find when completing the DRDP multiple times per year for each child?

Consideration in Early Childhood Assessment

Early childhood professionals are feeling ever-increasing pressure to document learning outcomes in an era of standards, accountability, and achievement testing. In addition to parents, we are the people responsible for the well-being of young children. Many professionals have legitimate concerns about misuse of assessment practices and instruments, and the potential for inequitable consequences for the children in our programs. It is important to consider some implications of the unique nature of early development and learning:

Complete and meaningful assessment in early childhood necessitates an understanding of family context, including getting to know family language and culture, gathering developmental information from parents, and conducting home visits with parent approval. This principle applies to all youngsters and families, but is especially critical for children whose families may not share the language or some of the economic advantages of the dominant culture. Understanding family expectations and experience places a child's behavior in context and can prevent harmful decisions that result from misinterpretation of assessment data (NAEYC, 2005).

Younger children present some complex challenges and require flexible procedures for gathering meaningful and useful assessment information. Constitutional variables such as fatigue, hunger, illness, and temperament can easily overshadow the abilities of a young child. Time of day, setting, testing materials and other situational factors also affect performance. The younger a child, the

more likely he or she is to fall asleep, become distressed, refuse to comply with directions, or be distracted from assessment activities. Professionals should be prepared to modify activities, explore alternative procedures, and/or reschedule rather than risk gathering faulty information that compromises assessment results.



Figure 17.15: Children will not always cooperate with an educator's plans to gather accurate information about them.[9]

Young children learn by doing, and demonstrate knowledge and skills through action-oriented activities. Authentic assessment of youngsters as they participate in daily activities, routines, and interactions generally produces the most valuable information for assessment. To the extent possible, assessment methods should allow for observation of young children engaged in spontaneous behaviors in familiar settings and with familiar people.

More assessments and increased data do not necessarily result in better assessment information. Early childhood professionals should only gather information they need, and know ahead of time how they will use all the information collected. It is generally most desirable to identify a set of appropriate methods and instruments that provide necessary information, and refine the use of those procedures over time

Some assessment instruments and procedures are better than others. Factors such as purpose, content, reliability and validity, efficiency, cost, and availability of professional development are all more important than appealing packaging and effective advertising. Of primary importance is the quality of information gathered and the decisions made as a result of assessment. Ultimately, whatever assessments we conduct should benefit the children, families, and programs we serve.[10]

Pause to Reflect

If you could only choose one thing in the previous section *Consideration in Early Childhood Assessment* to share with others, what would you want to be sure people new about assessment of young children.

References

[1] Australian Government Department of Education (n.d.) Educator My Time, Our Place. Retrieved from files.acecqa.gov.au/files/National-Quality-Framework-Resources-Kit/educators_my_time_our_place.pdf

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17.3: Conclusion

Evaluating children in early childhood education settings is an ongoing process of using observations and other evidence to make judgements about children's development and learning. The purpose for regular evaluation through a process of documentation and assessment is to enable responsive, well thought out long-term and short-term planning to promote the optimal growth, development, and learning for all children in the program.

Approaches to evaluation that are culturally and linguistically relevant and responsive to the social, physical and intellectual capabilities will acknowledge children's abilities and strengths, and allow them to demonstrate competence. Evaluation, when undertaken in collaboration with children can support and empower them to see themselves as capable and foster independence and initiative.

When educators reflect on their role in children's lives they reflect on their own views and understandings of theory, research and practice to focus on:

- the experiences and environments they provide and how that links to the intended outcomes
- the extent to which they know and value the culturally specific knowledge about children that is embedded within the community in which they are working
- each child's opportunities in the context of their families, drawing family perspectives, understandings, experiences and expectations
- the opportunities which build on what children already know and what they bring to the school age care setting
- evidence that the experiences offered are inclusive of all children and culturally appropriate
- not making assumptions about children's development or setting lower expectations for some children because of unacknowledged biases
- incorporating pedagogical practices that reflect knowledge of diverse perspectives and contribute to children's wellbeing and successful learning
- whether there are sufficiently challenging experiences for all children
- the evidence that demonstrates children feel safe and secure, and are engaged
- how they can expand the range of ways they debrief and reflect to make evaluation richer and more useful.

FIGURE HERE

Figure 17.17: The process of evaluation completes the cycle of curriculum planning.**[1]**

This process of reflective evaluation can lead to quality early childhood education programming that supports the optimal development of each child it provides care and education for.[2]

Pause to Reflect

Summarize what you now know about documentation and assessment in a paragraph. What are your key takeaways from this chapter?

References

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[2] My Time, Our Place - Framework for School Age Care in Australia by the Department of Education and Training is licensed under CC BY 4.0

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17.4: Working with Families

Documenting and assessment should be done collaboratively with families. Families are not just a recipient of information from educators. Parents and other family members bring a broad array of information, feelings, beliefs, and expectations relevant to the child's experience in the program, including curriculum:

- the child's temperament, health history, and behavior at home
- family expectations, fears, and hopes about the child's success or failure
- culturally-rooted beliefs about child-rearing
- parents' experiences of school and beliefs about their role in relation to professionals
- parents' sense of control and authority, and other personal and familial influences

Educators have unique information and perspective that they can share with families. Program staff bring their own knowledge, beliefs, and attitudes to their work with families:

- developmental and educational information about the child based on observation and assessment
- information about the child's performance in the program
- information about the curriculum and learning goals for the child
- knowledge about the child's next educational environment
- staffs' own unique personality and temperament, family history, and culture
- their job description, agency policies, and the supervision they receive
- their own training, experience, and professional philosophy

The goal of sharing information with parents about their child is not to make parents do what program staff think needs to be done, nor to see the child as staff do. Instead this process helps program staff to see the child as the parents do. This expands their understanding of the child and the family, so that they can adjust teaching and family support accordingly. When program staff can see the child as parents do, parents know that they can trust them. As a result, they are more likely to be open to program staff perspectives about their child. Information about the child will more effectively flow, from parents to staff, and staff to parents. Then, parents too will have richer information about their child to add to their support of their child's learning and development at home.

Respectfully sharing these different perspectives is an essential step toward healthy learning environments for children. Regular and purposeful supervision can help program staff recognize when their own perspectives are based upon personal reactions, biases, and cultures, and guide them to effective communication strategies.[11]



Figure 17.16: This educator is sharing information with this father.[12]

Pause to Reflect

What happens when parents and staff have very different perspectives on a child?

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