*For Children Birth to Age Three*

# Illinois Early Learning
# Guidelines

# Contents

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# Guidelines

Dear Reader,

It is with great pleasure that we present you with the Illinois Early Learning Guidelines for children from birth to three years of age. These Guidelines are the product of two years of intensive labor by many individuals and organizations. We have all focused on building comprehensive developmental learning standards for our youngest learners that form the foundation for all learning and development that is to follow. The myriad stakeholders involved in this project were driven by the following intentions for the use of the Guidelines:

> We hope the Guidelines speak to you, putting into words the development you see occurring each day with children from birth to three

> We hope the Guidelines support you in understanding and discussing child development

> We hope the Guidelines make you better equipped to plan for intentional interactions with children from birth to three

> We hope the Guidelines strengthen your commitment to responsive, developmentally appropriate practice with young children

> We hope the Guidelines enhance your belief system around the individual nature of the developmental trajectory and the crucial role that family and context play in each child's development

We have had the honor of guiding a process to develop Early Learning Guidelines for birth to three that embody an approach that is responsive to our state early childhood infrastructure's work and current needs in this area. In this project guidance and management role embedded within the Illinois Early Learning Council, we were able to draw out the best of our colleagues and stakeholders

in the areas of knowledge, practice, and cross-system strategizing. Through this work we were establishing a shared set of beliefs around what children from birth to three should know and be able to do and what our responsibility is to seeing these outcomes for children. Over the course of the two year project term, we asked a lot of everyone involved, and ourselves, and found that a shared commitment to young children drove us to push for the highest quality set of developmental guidelines. Inherent to our definition of quality was the need for this work to cut across all the service systems and sectors serving children from birth to three and their families. Each of these systems and sectors has had a hand in the creation of the Early Learning Guidelines with a careful consideration of the role of this content in their work with children and families. We are eager to continue to learn from one another and support each other in implementing the Guidelines to improve the quality of services delivered to children and families.

With our sincerest thanks,

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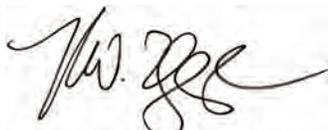
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# Introduction

Children's experiences in the first three years of life influence how they develop, learn, and interact with their world. This period is marked by an extraordinary amount of growth, and sets the foundation for children's future learning and ongoing development.

The Illinois Early Learning Guidelines are designed to provide early childhood professionals and policy makers a framework for understanding development through information on what children know and should do, and what development looks like in everyday instances. These Guidelines also provide suggestions and ideas on how to create early experiences that benefit all children's learning and development. The main goal of the Guidelines is to offer early childhood professionals a cohesive analysis of children's development with common expectations and common language.

*Children are actually growing and learning in all areas of development at all times.*



During the process of developing these Guidelines, core principles were taken into consideration. All of these principles are integrated into the Guidelines, providing a comprehensive and appropriate look at children's development. The core principles are:

- Early relationships are most important and central to young children's development.
- Development occurs across multiple and interdependent domains, in a simultaneous manner.
- Children develop and learn at their own unique pace and in the context of their family, culture, and community.
- Play is the most meaningful way children learn and master new skills.

## Relationships

Early learning occurs in the context of relationships. Positive and secure relationships are the foundation for children's healthy development in all areas and provide models for future relationships they will establish. These nurturing relationships give children the security and support they need to confidently explore their environment, attempt new skills, and accomplish tasks. Children who have strong, positive attachments with important adults in their lives use these relationships to communicate, guide behavior, and share emotions and accomplishments. These meaningful interactions and relationships are essential for children's development as they help them realize they have a meaningful impact on their world and the people around them.

## Domains of Development

Children's development is looked at through four core developmental domains: social and emotional, physical, language, and cognitive. Children develop across these four domains at the same time, with each area of development dependent on growth in all the other areas. There may be times when children seem to focus on one particular area of development, while having little growth in another area. For example, a 12-month-old child who is concentrating on language may not display any interest in walking on his or her own. Then, a few weeks later, the child suddenly starts to walk. This is an example of how development flows, and while it may seem that they may "stall" at certain times, children are actually growing and learning in all of the areas at all times.

## Influences on Development and Learning

Children follow a general continuum as they develop, and each child will reach his developmental milestones at his own individual pace, and through his own experiences and relationships. Development is influenced by various factors:

### Culture

Culture plays a significant role in how children develop, as it influences families' practices, beliefs, and values for young children. Goals for children's learning and development differ across cultures. Therefore, it is important for early childhood professionals to know, recognize, and respond sensitively to the multitude of cultural and linguistic variations that families and children exhibit. In order to support healthy development, it is important to provide culturally appropriate activities and experiences that are responsive to children from diverse backgrounds.

*Differences in abilities, language, culture, personality, and experiences should not be seen as deficits, but instead, be recognized as the unique characteristics that define who children are.*

### Differences in children's learning abilities

Children have varying developmental abilities and different learning styles that influence when and how they reach their developmental milestones. All children are unique and these differences are to be taken into consideration when caring for them. The structure of the learning environment should be tailored to varying abilities, and interactions between children and caregivers should be meaningful and appropriate. It is important to encourage acceptance and appreciation of differences in learning abilities and to partner with caregivers to align individual goals for children.

### Temperament

Temperament refers to the unique personality traits that children are born with. Temperament influences how children respond to the world around them, and how others will interact with them.[1] Some children are outgoing and assertive and love to try new things. Other children are slower to warm up and need time and support from adults to engage in new activities. Adults need to be sensitive to children's temperament and interact with children in a manner that supports their temperament to foster feelings of security and nurturing.

### Birth order

Birth order can influence children's personality and how they relate with their family. Children each have their own unique personality traits; yet, birth order may have an impact on how children's personality traits are expressed. For example, middle children may be more outgoing and social because they have experience interacting with an older sibling. Or, youngest children may be more persistent because they may have to work harder for uninterrupted attention.[2] These examples may not be consistent across all children, but it is important to note that all children have unique personalities that influence how they interact and develop. Birth order also impacts the caregiver's role and how they parent and interact with each child. For example, there may be differences in how a caregiver approaches their youngest child, compared to their oldest child, due to increased confidence in their parenting skills.

Differences in abilities, language, culture, personality, and experiences should not be seen as deficits, but instead, be recognized as the unique characteristics that define who children are. The important goal early childhood professionals are tasked with during this age period is how to best support children's diverse needs.

## Toxic Stress

Stress is a common experience for all children. While positive and tolerable stress – such as moving to a new neighborhood, or parental separation or divorce – is all part of healthy development, toxic stress is detrimental to the developing child. Toxic stress includes physical or emotional abuse, chronic neglect, extreme poverty, constant parental substance abuse, and family and community violence.[3] Toxic stress is attributed to prolonged activation of children's stress systems, without support or protection from caregivers.[4] Extended and repeated exposure to these stressors disrupts children's brain development and impacts their overall development, with the possibility of lifelong negative health issues. However, because the brain is still growing during the first three years of life, the effects of toxic stress can be buffered and even reversed through supportive and responsive relationships with nurturing adults.[5]

## Play

Play is often described as "a child's work"; it is central to how children learn and make sense of the world around them. Play is often spontaneous, chosen by the child, and enjoyable. Play consists of active engagement and has no extrinsic reward.[6] It is very important to highlight that play does NOT include television watching or games played on the computer or other technology devices.

Children use play to learn about their physical world, themselves, and others. Children use play to sort out their feelings and explore relationships, events, and roles that are meaningful to them. Play changes drastically in the first three years. For example, a six-month-old plays with an object simply by touching and mouthing it, an 18-month-old purposefully makes an object move in a certain way, and a 34-month-old uses language and actions while playing with an object. This example demonstrates how play becomes more complex to match and meet children's developing abilities.

## Who, me? A professional brain developer?

Absolutely! Parenting children is the **most important job** and one of the most challenging. All caregivers are tasked with developing and shaping the brain of society's youngest scientists. Brain development in the first three years is extraordinary. While children's brains are not fully developed at birth, the early experiences in their lives influence the rapid growth and development of their brain. Positive and nurturing interactions and experiences promote neural connections in the brain, which are essential for healthy development and growth.[7] Caregivers are not only forming how children think through consistent, nurturing, and responsive care; they are also building the foundation for how children learn and interact with their world.

**Who are the professional brain developers? Any person who is responsible for the care of children!**

Within the Guidelines, there are varying references to caregivers, familiar others, attachment figures, and primary caregiver(s). All of these people impact children's brain development. Below is a brief description of each:

**Caregivers** and **Primary Caregivers** include those who are primarily responsible for the care of the child. Caregivers can include parents, grandparents, relatives, and childcare providers.

**Attachment figures**, a term used in the Social and Emotional domain, refer to a few, select caregivers with whom children have an attachment relationship. Attachment figures can include parents, grandparents, relatives, and childcare providers.

**Familiar others** are people who are a common presence in the life of the child. These may include family members, additional childcare providers, other birth-to-three professionals working with the family, family friends, occasional caregivers, and neighbors.

Within the **Real World Stories** and **Strategies for Interactions**, there are examples and suggestions for how caregivers can promote healthy brain development in young children.

Structure of collaboration
for the creation of the
Illinois Early Learning Guidelines

- Illinois Early Learning Council

- Infant Toddler Committee

- IELG Workgroup

- IELG Domain
  Writing Teams
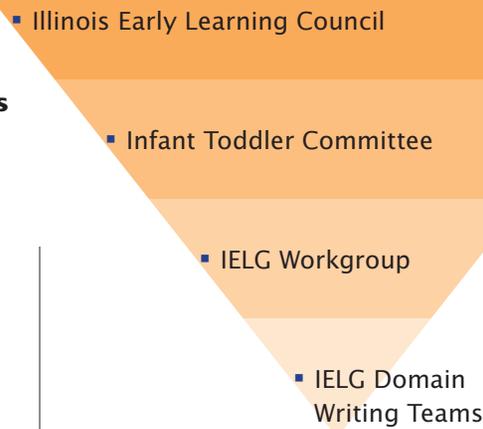
# Development of the Guidelines

The Illinois Early Learning Guidelines were developed in collaboration with key Illinois stakeholders in the infant-toddler field. Early childhood leaders, educators, practitioners, and policy experts came together to ensure the creation of an accessible and user-friendly document, presenting evidence-based and up-to-date information on infant-toddler development for parents, caregivers, early childhood professionals, and policy makers. The structure of the group stemmed from the Illinois Early Learning Council – Infant Toddler Committee. Within this committee, a Workgroup formed to create the vision for the Guidelines. The vision of the group was to ensure a document that could align with and integrate into the complex system of services for children birth to three in the state, and fulfill the ultimate goals of improving program quality, growing provider capacity, and strengthening the current systems.

The leadership group of the Workgroup then began coordinating the development of the Guidelines, with input from the Workgroup and from the six writing teams, which were small sub-groups of the Workgroup. The writing teams were tasked with providing input and review of developmentally appropriate content. This collaborative approach in writing the Guidelines allowed for important decisions to be made by a diverse range of professionals representing different areas of the field. This collaboration resulted in the creation of Guidelines that:

**1. Create a foundational understanding** for families, providers, and professionals in the field of what children from birth to age three are expected to know and do across multiple developmental domains.

**2. Improve the quality of care and learning** through more intentional and appropriate practices to support development from birth to three.

**3. Develop a more qualified workforce.**

**4. Enhance the current system of early childhood services** by aligning birth-to-three developmental standards with existing standards and practices for older children and across system components.

**5. Serve as a resource** for those informing decision makers involved with developing and implementing policies for children from birth to three.

The Guidelines are NOT intended to replace any existing resources that are currently used in birth-to-three programs and are not an exhaustive resource or checklist for children's development. The Guidelines are NOT a:

- Curriculum
- Program model
- Developmental Screening Tool
- Developmental Assessment Tool
- Professional Development Curriculum

The Guidelines are designed to complement these educational tools and provide a cohesive analysis of children's development with common expectations and common language.

| Birth to 9 months | | | | |
|---|---|---|---|---|
| | 7 to 18 months | | | |
| | | 16 to 24 months | | |
| | | | 21 to 36 months | |

Birth             12 mo.           24 mo.          36 mo.
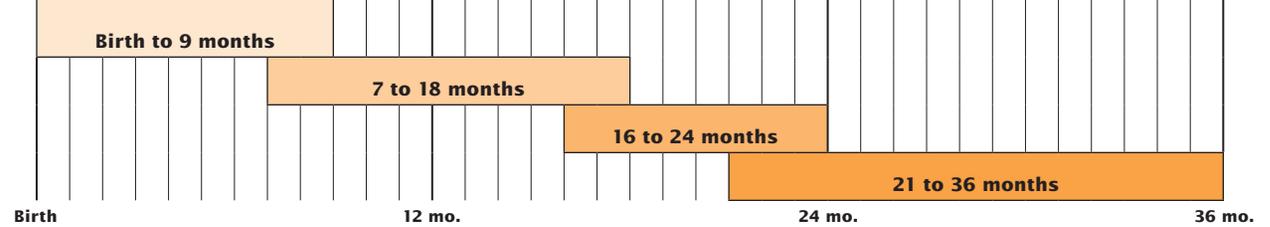
Figure 1

# How to Use the Guidelines

The Guidelines begin with **The Newborn Period**, which discusses the first four months of children's lives and the experiences that are unique to this time. The first of the six tabbed sections, **Self-Regulation: A Foundation of Development**, focuses on children's development of self-regulation, which is essential for overall healthy development and learning. Self-Regulation refers to children's emerging ability to regulate or control their attention, thoughts, emotions and behaviors.[8] Next, **Domains of Development** are specific areas of growth and development. The Guidelines consist of *four* developmental domains: Social and Emotional Development; Language Development, Communication, and Literacy; Physical and Motor Development; and Cognitive Development. The final section, **Approaches to Learning**, focuses on specific methods by which children engage with the world around them in order to make meaning and build understanding of their experiences. These six tabbed sections are each structured in the same manner, and are further broken down into **Sub-Domains/ Sub-Sections, Standards, Age Descriptors,** **Indicators for Children,** and **Strategies for Interaction**.

These components map accordingly onto Figure 2:

① **Sub-Domains/Sub-Sections** are detailed components of each developmental domain or section.

② **Standards** are the general statement of what children should know and be expected to do by the time they reach 36 months of age.

③ **Age Descriptors** describe the progression of development for each of four particular age groups across the birth-to-three age range.

These four distinct and overlapping groups are: **Birth to 9 months, 7 to 18 months, 16 to 24 months,** and **21 to 36 months**. These age groupings are used in order to reflect children's bio-behavioral shifts, which are changes in behavior triggered by biological changes in the brain. These shifts allow children to grow and gain new skills (see Figure 1).

④ **Indicators for Children** are some of the observable skills, behaviors, and knowledge that children demonstrate to "indicate" progress toward achieving the standard.

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developmental domain 1: SOCIAL & EMOTIONAL DEVELOPMENT | **Emotional Expression**

**Standard:** Children demonstrate an awareness of and the ability to identify and express emotions. ①  ②

**During this age period:**

| **Birth to 9 months:** Children begin to express a wide range of feelings through verbal and nonverbal communication, and begin to develop emotional expression with the assistance of their caregiver(s). ③ | **7 months to 18 months:** Children begin to express some emotions with intention, and with the help of their caregiver(s) children can increase their range of emotional expression. |

The emergence of the social smile and interactions with caregiver(s) are the first **intentional** or goal-directed behaviors that children display. Intentional behaviors become increasingly complex and purposeful as children grow. ⑥

**Indicators for children include:** ④

- Uses facial expressions and sounds to get needs met, e.g., cries, smiles, gazes, coos
- Expresses emotions through sounds and gestures, e.g., squeals, laughs, claps
- Demonstrates discomfort, stress, or unhappiness through body language and sounds, e.g., arches back, moves head, cries

**Indicators for children include:**

- Expresses wants with intentionality, e.g., pushes an unwanted object out of the way, reaches for a familiar adult when wanting to be carried
- Expresses fear by crying or turning toward caregiver(s) for comfort
- Shows anger and frustration, e.g., cries when a toy is taken away
- Recognizes and expresses emotion toward a familiar person, e.g., shows emotion by hugging a sibling

**Strategies for interaction:** ⑤

- Respond and comfort the child in order to meet needs; act as a co-regulator for the child, e.g., feed the child when hungry, rock the child when tired
- Describe the emotion the child is expressing, e.g., "I can see you are so excited about reaching that toy!"
- Model facial expressions to match emotions, e.g., widen eyes and open mouth to express surprise

**Strategies for interaction:**

- Respond to child's display of fear or distress; reassure and comfort the child
- Model emotional expression for the child by making facial expressions and using words to name the emotion
- Reciprocate actions and gestures the child initiates, e.g., wave hello, blow kisses, give hugs

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developmental domain 1: SOCIAL & EMOTIONAL DEVELOPMENT | **Emotional Expression**

**Standard:** Children demonstrate an awareness of and the ability to identify and express emotions. ②

| **16 months to 24 months:** Children continue to experience a wide range of emotions (e.g., affection, frustration, fear, anger, sadness). At this point in development, children will express and act on impulses, but begin to learn skills from their caregiver(s) on how to control their emotional expression. ③ | **21 months to 36 months:** Children begin to convey and express emotions through the use of nonverbal and verbal communication. Children also begin to apply learned strategies from their caregiver(s) to better regulate these emotions. |

**Co-regulator** refers to the child's primary caregiver(s) who assists the child in achieving regulation through responses, interactions, and communication. ⑥

**Indicators for children include:** ④

- Demonstrates anger and frustration through a wide range of physical, vocal, and facial expressions, e.g., temper tantrums
- Expresses pride, e.g., smiles, claps, or says, "I did it" after completing a task
- Attempts to use a word to describe feelings to a familiar adult
- Expresses wonder and delight while exploring the environment and engaging others

**Indicators for children include:**

- Attempts to use words to describe feelings and names emotions
- Acts out different emotions while engaged in pretend play, e.g., cries when pretending to be sad, jumps up and down for excitement
- Begins to express complex emotions such as pride, embarrassment, shame, and guilt
- Engages in play to express emotion, e.g., draws a picture for a caregiver because he or she misses them, hides a "monster" in a box due to a fear

**Strategies for interaction:** ⑤

- Use words to describe the emotion; this helps the child associate the feeling with the name
- Pay close attention to the cues the child is expressing
- Model appropriate ways to express different feelings
- Acknowledge and validate the emotions the child is feeling, e.g., "I can see you are so excited by the way you are jumping up and down."

**Strategies for interaction:**

- Discuss feelings with the child; reassure him or her that it is okay to feel different emotions
- Recognize that the child may need some assistance in expressing feelings
- Allow other channels in which children can express their emotions, e.g., art, dance, imaginary play
- Respect cultural differences when it comes to expressing emotions; never discount what the child is sharing and expressing
- Ensure to continue reading the child's cues even as the child begins to use words to describe feelings

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⑤ **Strategies for Interaction** are specific activities, practices, and interactions in which caregivers can engage with children to support healthy development.

⑥ **Call-Out Boxes** are definitions of specific words and complex concepts essential for understanding the progression of development outlined within the sub-domain.

**Real World Stories** are real-life examples that demonstrate the specific concepts of development in action.

**Keep in Mind** lists behaviors that can be used to identify possible concerns for development and are found at the end of the Self-Regulation section, and the four developmental domains section.

## Interconnections

Since development occurs across multiple, inter-related areas, readers will see a short list of other, closely related sub-domains/sub-sections in every sub-domain/sub-section introduction and in each real world story. While every sub-domain and sub-section can relate to the others, the Guidelines highlight those most relevant to each particular one. Below is a sample of these references:

**self-regulation**

**Emotional Regulation, p. 17**

**domain 4: Cognitive**

**Memory, p. 97**

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# The Newborn Period:

## A Developmental Perspective on the First Four Months

The first few months of an infant's life can be both very exciting and very overwhelming for caregivers. The newborn infant exclusively relies on his or her parents and/or caregivers for survival.

The newborn period, birth to four months, is a period when parents and caregivers are working very hard to learn their infant's signals and respond appropriately to their needs. Infants depend exclusively on soothing and appropriate responses from their caregivers in order to thrive and develop. In fact, **there is no possi-**

**ble way to spoil an infant.**[9] **On the contrary, when adults respond to newborns and meet their needs consistently and promptly, children learn to trust their caregivers and realize that they have a positive impact on their world. Children use this trust and these positive experiences to build upon for future development and learning.**

The transition from womb to world can be pretty harsh on a newborn. Therefore, caregivers need to be sensitive and patient in soothing and caring for their infants. The first four months of life are sometimes referred to as the "fourth trimester."[10] In these first four months, infants mainly work on maturing their brain and nervous system. They sleep in short stretches, without much focus on whether it is night or day. They are unable to settle themselves and go back to sleep on their own.[11] During this time, children need to eat very frequently, at least every two to three hours. Infants cannot soothe themselves and rely on their caregivers to calm them. If infants are born prematurely, this fourth trimester transition is even longer, as premature infants work extremely hard to first reach a healthy state where they can maintain their body temperature, eat successfully, and gain weight.

During the first four months, infants rely on their caregivers to keep them organized, calm, and content. This is described as achieving **homeostasis**, and is where the infant is most comfortable. Homeostasis is not easy to achieve, and caregivers find themselves attempting many different strategies to soothe their infants.[12] This may include rocking an infant who is sleepy, or feeding an infant who is hungry. Infants are also using all of their senses to take in **stimulation** from their environment. However, just as with adults, there is always the possibility of overstimulation, when infants become uncomfortable with the stimuli in their environment. Infants demonstrate **overstimulation** through behaviors such as **gaze aversion**, crying, spitting up, or hiccupping.

*Both the **quiet alert** and **active alert** states are the best time for play and interactions that support learning and development.*

Caregivers need to closely read these signals, and change the environment as needed. This may include reducing noise such as the television or radio, dimming the lights, or wrapping a cold infant in a thicker blanket.

Infants are born with unique personality traits, known as their temperament. The temperament of the infant will influence how caregivers will interact with him or her. In the early months, these traits are visible in how infants sleep, how easy or difficult they are to soothe, how intense their movements are, and how alert they become. The main goal is to understand and recognize the unique traits of infants and respond consistently and thoughtfully. This may mean standing and rocking an infant who has difficulty remaining asleep; or simply laying down an infant who is content in observing his or her surroundings. The more appropriate the response, the calmer the infant.

### Nine characteristics of temperament:[13]

- Activity level refers to the level of children's physical energy

- Regularity refers to children's level of predictability in their biological functions (sleep, wake, eat, eliminate)

- Approach or withdrawal refers to how children respond to new people and/or environments

- Adaptability refers to how long it takes children to adjust over time in different situations

- Threshold of responsiveness refers to how easily a child is disturbed or distracted by sensory changes in the environment.

- Intensity of reaction refers to the intensity of a positive or a negative response.

- Quality of mood refers to children's general disposition: happy or unhappy.

- Distractibility refers to children's tendencies to either retain or lose focus when interruptions occur in the environment.

- Attention span and persistence refers to the length of time children can stay engaged and follow through while engaged in tasks.

As caregivers become more accustomed to the signals, patterns, and temperament of their infants, they will notice that there are times of the day when the infant is sleepy, alert, or fussy. These behaviors are described as states of consciousness.[14] There are a total of six states that infants cycle through during the day. While these states may appear to be somewhat consistent, they will most certainly change in the first month of life and for months afterward. The six states of consciousness are:[15]

**Deep sleep** – able to shut out disturbing stimuli from the environment; breathes deeply, regularly, and heavily

**Light sleep** – sleep is lighter; moves; breathing is shallower and irregular; startles at noises

**Drowsiness** – eyes start to close; may start to doze

**Quiet alert** – bright face, movements are smooth; breathing, face, and body posture all demonstrate interest and attention

**Active alert** – actively moves body and face

**Crying** – cries, becomes disorganized; relies on parent's attention and intervention.

It is important for caregivers to carefully read the cues that infants are displaying during these states in order to respond thoughtfully. For example, shaking a rattle at an infant who is in the drowsiness state may make him or her increasingly fussy. Both the quiet alert


▲ **Deep sleep**


▲ **Light sleep**


▲ **Drowsiness**


▲ **Quiet alert**


▲ **Active alert**


▲ **Crying**

*Infants are born ready to be social; love, laugh,*

*and interact with them as much as possible.*

and active alert states are the best time for play and interactions that support learning and development.

Between two and four months, infants undergo many changes. They become more social and interactive. This is first marked by the emergence of the social smile, around six to eight weeks. In addition to smiling, infants begin to coo and gurgle to communicate with caregivers. Reflexes are fading and voluntary movements are more common.

**By four months infants will be able to:**

- Raise their head and chest when lying on their stomachs
- Open and shut hands
- Take swipes with hands at dangling objects
- Grasp and shake objects
- Continue to have an increasing interest in human faces
- Begin to engage in social interactions
- Recognize familiar objects and people at a distance.

These first four months are a very special time. Infants are born ready to be social; love, laugh, and interact with them as much as pos-sible. Take advantage of the times when they are alert and ready to engage. Diapering and bathing times are great examples of times when you can engage in social interactions. Sing, hug, rock, coo, smile – all of these are loving inter-actions that help infants feel secure enough to learn. These early experiences are so important and meaningful; they help encourage bond-ing, and are the beginning of the important relationship(s) that children need to build strong attachments and thrive in their development.



## Reflexes

Children do not come into the world defenseless. They are born with instinctive reflexes designed for basic survival.[16] Below is a list of the most common reflexes:

**Hand-to-mouth reflex:** brings fist up to mouth; important for soothing and eating

**Palmar reflex:** closes hand and "grips" a caregiver's finger when there is a light touch to the palm

**Protective reflex:** turns head from side to side and squirms if an object is coming straight on, e.g., looks away to disrupt eye contact with a caregiver when feeling overwhelmed

**Rooting reflex:** turns head toward the direction of a touched cheek, searches for source of food

**Sucking reflex:** begins to suck when a nipple (either breast or bottle) or finger is placed in the mouth and touches the roof of the mouth

# Self-Regulation:

## A Foundation of Development

The Guidelines view self-regulation as a foundation of development because children's emerging ability or inability to self-regulate directly impacts growth in the four developmental domains. Self-regulation refers to how children take in information from both their bodies and their environment, and how they respond to that information.[17]

Self-regulation also refers to children's emerging ability to regulate or control their attention, thoughts, emotions and behaviors. Since self-regulation includes how children cope with situations that produce either change or stress, children who have a difficult time managing stressors may not be able to reach a calm state where growth and learning can occur, even with the help of their caregiver. Therefore it is important that caregivers pay attention to children's self-regulation skills and help them learn how to regulate their emotions, thoughts, and behaviors. Just as with development in other domains, children's self-regulation capacities progress as they develop, and heavily rely on sensitive and nurturing relationships with caregivers.

Children's capacity to self-regulate in the first three years is not fully developed. Children's development accommodates for this maturing ability by relying on caregivers to act as the external regulators, or co-regulators.[18] Central to the development of healthy self-regulation is children learning to read their bodies' signals. At first, caregivers are the ones who respond to these signals. For example, when young children feel hunger, they must depend on their caregivers to recognize their cues and appropriately meet that need. If there is a loud noise that is causing the child to feel stressed and overwhelmed, the caregiver must modify the environment for that child to regain a calm state. Children rely on attentive caregivers to read their

cues and meet their needs. Children's needs include everything from maintaining a normal body temperature to managing their physiology and behavior, and learning to soothe themselves. As they develop children also depend on their caregivers to help them manage emotions and behavior, and build attention.[19]

Self-regulation is a lifelong process that depends on children's social and cultural contexts, and the child and caregiver relationship. Cultures differ in both the physical and emotional expectations they have of young children and how they respond to children's behaviors and signals. Therefore, how children react and what they do about feelings or occurrences will differ depending on their unique experiences.

When caregivers properly meet children's needs in a consistent manner, they help them feel safe, content, and organized. After having these needs met over and over, children learn that feelings of stress or discomfort will quickly pass, building their internal capacity to respond to these feelings and become less reactive and impulsive. As young children learn to read and respond appropriately to their own cues, they become capable of managing their own self-regulatory processes. "This transition from external regulation to self-regulation is one of the most important tasks of growing up."[20] In the following sub-sections, the four types of self-regulation are further explained. Additionally, the concepts of self-regulation are integrated throughout the Guidelines.

*[The] transition from external regulation to self-regulation is one of the most important tasks of growing up.*

**—Dr. Bruce Perry**

# Physiological Regulation

Physiological regulation refers to children's capacity to regulate their bodily processes. Very early on, children are working on organizing their sleep-wake and elimination cycles and body temperature.

While these processes first start off as involuntary actions, they eventually transition to tasks that children gain control over. Caregivers help children with the organization of their day and night wake-sleep rhythms.[21] During the first eight weeks of life, children sleep in shorter stretches, without focus on whether it is night or day. However, by three months there is an increase in the length of their sleep periods. For most children, these increased stretches occur at night.

Children's sleep continues to become more organized and consolidated. The number of naps decreases, as children take one or two naps that increase in length, and night-time sleeping stretches longer and longer. These consolidated patterns also occur in children's feeding schedules. At first, children need to eat every two to three hours; as they grow, their eating schedule becomes similar to that of an adult. Elimination patterns also form during these years, and depending on children's cultural expectations and physical and cognitive abilities, potty training may be conquered by the end of 36 months. While not all children will be potty trained by this time, most will have an awareness of using the bathroom and recognizing their bodies' cues. Expectations for children's physiological abilities depend on cultural beliefs and practices, and will influence when and how children master these regulatory tasks.

**Standard:** Children demonstrate the emerging ability to regulate their physical processes in order to meet both their internal needs and external demands in accordance with social and cultural contexts.

**Discover how Physiological Regulation is related to:**

**domain 1: Social & Emotional**

**Attachment Relationships, p. 31**

**domain 2: Physical**

**Self-Care, p. 69**

**Standard:** Children demonstrate the emerging ability to regulate their physical processes in order to meet both their internal needs and external demands in accordance with social and cultural contexts.

| During this age period: | **Birth to 9 months:** Children's biological rhythms are supported and impacted by their caregiver(s) in order to establish their sleep/wake, feeding, and elimination patterns. Children also begin to develop awareness of stimuli in their environment. | **7 months to 18 months:** Children, through the responses and support of their caregiver(s), become increasingly organized in and begin to adapt their sleep/wake, feeding, and elimination patterns. Children are also beginning to organize and habituate to stimuli in their environment. |
|---|---|---|

**Biological rhythms** are patterns that occur within people's bodies. These include sleeping, waking, eliminating, and maintaining normal body temperature.

**Stimuli** are sounds, textures, tastes, sights, and temperatures found in children's environments.

### Indicators for children include:

- Begins to demonstrate a pattern in sleep-wake and feeding cycles
- Signals for needs, e.g., cries when hungry, arches back in discomfort
- Disengages when overstimulated, e.g., turns head, glances away, falls asleep, spits up
- Uses sucking to assist in sleeping

### Indicators for children include:

- Demonstrates consistent sleeping and feeding times throughout the day
- Increasingly organized and consolidated internal schedule for sleep/wake, elimination, and feeding, e.g., decreases the number of naps but extends the length of the naps
- Communicates with a wide range of signals as crying diminishes, e.g., smiles, gestures, uses words
- Begins to exhibit certain behaviors when overstimulated and/or unfocused, e.g., becomes aggressive, lashes out, bites
- Increased desire for independence and control

### Strategies for interaction:

- Provide consistent routines in caring for the child
- Follow the child's cues and respond thoughtfully
- Use touch to help the child regulate, e.g., swaddle, hold, cuddle, rock to help soothe the child
- Minimize stimuli in the child's environment, e.g., limit colors, sounds, and objects

### Strategies for interaction:

- Establish a routine for sleeping, eating, and diapering
- Recognize the child's sensitivity to sensory exposure and adjust accordingly
- Minimize stimuli in the child's environment, e.g., limit colors, sounds, and objects
- Provide redirection and be consistent in helping the child regulate in overwhelming situations, e.g., use distraction by sharing a different toy or object
- Allow the child to express emotions through newfound movements, e.g., jumping for joy
- Provide the child with some responsibility and choices, e.g., ask the child for help building a tower with blocks

**Standard:** Children demonstrate the emerging ability to regulate their physical processes in order to meet both their internal needs and external demands in accordance with social and cultural contexts.

| **16 months to 24 months:** Children have established basic, consolidated patterns in sleep/wake, feeding, and elimination functions. Children use nonverbal and verbal communication to signal needs to caregiver(s) for support in regulating. Children also begin to manage internal and external stimuli. | **21 months to 36 months:** Children begin to independently manage functions of feeding, sleeping, waking, and eliminating with some support from their caregiver(s). Children can now manage and begin to discriminate internal and external stimuli. | **During this age period:** |
|---|---|---|
| **Indicators for children include:** | **Indicators for children include:** | **Overstimulation** refers to excessive sounds, textures, temperatures, and sights that impede children from making a meaningful connection with others or objects. |
| ▪ Uses gestures and symbolic actions to demonstrate feelings and needs, e.g., lays head on caregiver's lap when tired<br><br>▪ Becomes frustrated and displays regressive behaviors when overstimulated, e.g., temper tantrums<br><br>▪ Communicates needs with one or two words, e.g., says or gestures "milk" for "I want milk"<br><br>▪ Begins to have an awareness of bodily functions and begins to demonstrate an interest in toileting, e.g., recognizes a "potty" | ▪ Calms down in order to sit and read a book with a caregiver<br><br>▪ Uses movement to express an emotion, e.g., jumps up and down when excited, stomps feet when upset<br><br>▪ Recognizes patterns throughout the day, e.g., grabs a pillow and blanket after lunch, when it is nap time<br><br>▪ Communicates needs more thoroughly, e.g., "I am hungry"<br><br>▪ Manages overstimulation in a more organized manner, e.g., disengages, walks away<br><br>▪ Demonstrates a readiness to begin toilet training | |
| **Strategies for interaction:** | **Strategies for interaction:** | |
| ▪ Recognize and respond to the child's communication efforts<br><br>▪ Establish a schedule throughout the day that includes sufficient time for feeding and resting<br><br>▪ Provide sensory play for the child who is having difficulty remaining regulated due to lack of sensory input, e.g., play dough, water play<br><br>▪ Read the child's cues to determine how to support the child during challenging instances, e.g., use of a soothing voice or gentle touch; or ensure the child is safe and allow them to express their emotions through a more physical manner (lying on the floor, stomping feet) | ▪ Provide words to the child's feelings and physical actions<br><br>▪ Teach the child about respecting personal space and provide objects to help them define this space, e.g., individual seat cushions during circle time<br><br>▪ Continue using soothing and calming behaviors when helping a child regulate<br><br>▪ Listen to child when expressing needs and wants; watch for verbal cues carefully<br><br>▪ Slow down and be present for the child; limit overstimulation and provide support for the child as needed<br><br>▪ Approach toilet training within the context of the home culture and the primary caregiver's guidance | |

## Toilet Training

The ability of children to learn how to control their bladder and bowel movements is an important developmental milestone. However, when it is achieved varies across different cultures.[22] Toilet training is a very personal process for families and rooted in both cultural and societal expectations. Caregivers can experience conflicting advice from friends, doctors, and family members who may not understand different child-rearing practices. It can be a stressful time for children and the caregivers who are supporting them in learning this big skill. The most important aspect of toilet training is that both the child and caregiver are ready to attempt this process. Children need to be emotionally ready and have the cognitive and physical abilities to begin the process. When and how to take on this developmental task are decisions that should be made by the primary caregivers, with support from those they feel they can benefit from. Most importantly, caregivers should remember that there is not a right answer when it comes to toilet training.

# Real World Story

Stella is 20 months old and attends childcare a few days a week. The class is getting ready to sit down and have a snack. Stella's primary caregiver, Jean, places bowls of yogurt and crackers on the table for each child. She signals Stella to sit down. Stella sits down and grabs her spoon. Jean sits between her and another child. Stella slowly feeds herself yogurt, with very little spilling. She continues to feed herself, and then begins to drop some yogurt on her chin, shirt, and the table. Jean reaches to help her and Stella pushes her hand away. Jean offers Stella a napkin, and Stella grabs it and begins to wipe her mouth. Again, Jean makes a move to help her and Stella shakes her head and says, "No." Stella slowly moves the spoon from her bowl to her mouth and leans toward the spoon slowly. She continues to eat in this manner, and often stops to wipe her mouth. With yogurt still in the bowl, she hands her bowl to Jean and says "All done." She grabs her napkin and starts to smear the yogurt that she has dropped on the table. Stella continues to do this until Jean stops her and hands her a clean napkin. Jean says, "Help me clean the table." Stella follows Jean around the table, moving the napkin over the table in a sweeping manner.

IN THIS EXAMPLE, Stella is building her abilities in feeding herself. She refuses help from Jean and lets her know with both verbal and nonverbal communication. Even though Stella has not mastered this skill, she realizes that if she moves her head forward she may spill less. She does not seem bothered by the spilling that she is doing, and again refuses help from Jean to wipe her mouth. Stella uses her developing abilities to feed herself and wipe her mouth. She does not give up, nor does she become frustrated with the spilling. Stella recognizes her body's signals as she lets Jean know she is full by simply saying "All done." Stella also uses imitation and observation as she helps Jean clean the table. Jean recognizes, encourages, and supports Stella's development of these tasks and her growing independence.

**This story also relates to:**

# Emotional Regulation

Emotional regulation refers to children's abilities to identify and manage their feelings. As in every aspect of development, emotional regulation begins with caregiver relationships. Attentive caregivers who consistently meet the needs of children set the foundation for healthy emotional regulation. In early infancy, children need their caregivers to soothe them when distressed. If these needs are met consistently and promptly, children develop a sense of trust and security with those around them. Children use these positive experiences to build upon their own self-soothing strategies to remain organized, and they begin to learn to manage their emotions.

Children feel a range of emotions and will express and react to them without thinking. This range includes everything from joy to frustration to fear. In the first three years of life, children are working on building the foundation for this skill. Children use their caregivers, play, and private speech to help them manage their emotions. As the co-regulators, caregivers model for and support children in learning to pause between what they are feeling and taking action. Children learn to take time to think, plan, and eventually come up with an appropriate response in situations in which they experience intense emotions.[23] If these interactions go well, children build the capacity to regulate their emotions in appropriate ways, defined by their cultural and social contexts. Emotional regulation is extremely important as it influences how children interact with adults and each other, build empathy, master new skills, and work through frustrations and conflicts.

**Standard:** Children demonstrate the emerging ability to identify and manage the expression of emotion in accordance with social and cultural contexts.

**Discover how Emotional Regulation is related to:**

**domain 1: Social & Emotional**
Emotional Expression, p. 35
Empathy, p. 51

**domain 3: Language**
Social Communication, p. 75
Expressive Communication, p. 83

**domain 4: Cognitive**
Memory, p. 97
Safety & Well-Being, p. 125

**Standard:** Children demonstrate the emerging ability to identify and manage the expression of emotion in accordance with social and cultural contexts.

| During this age period: | Birth to 9 months: Children are developing the ability to manage their own emotional experiences through co-regulation, as they communicate needs to caregivers. | 7 months to 18 months: As children continue to depend on and learn from caregivers, they begin to use more purposeful and complex skills in managing their emotions. |
|---|---|---|

**Overstimulation** refers to excessive sounds, textures, temperatures, and sights that impede children from making a meaningful connection with others or objects.

**Social referencing** is the term for the way young children take their cues from familiar others in deciding what emotions and actions are appropriate.

### Indicators for children include:

- Signals needs by sounds and movement
- Able to use cues to signal overstimulation, e.g., turns head, gaze aversion
- Begins to use self-soothing strategies, e.g., sucks on hands, grasps an object in order to calm self
- Vocalizes and uses facial cues to get caregiver's attention, e.g., cries, gazes, initiates eye contact

### Indicators for children include:

- Communicates needs to an adult, e.g., points, shakes head
- Able to self-soothe more effectively, e.g., sucks thumb, holds on to stuffed toy
- Uses social referencing in uncertain situations, e.g., looks at a caregiver's face for reassurance in the presence of a new person
- Prefers physical proximity to familiar adults in unknown situations, e.g., follows caregiver when he or she leaves the room
- Seeks out caregiver through physical actions, e.g., reaches for the caregiver's hand or moves closer to them when frightened
- Uses comfort objects, e.g., a stuffed animal or blanket, to help calm down

### Strategies for interaction:

- Remain emotionally available for the child; respond thoughtfully to their needs, e.g., hold, rock, and cuddle the child when distressed
- Respond to the child's signals in order to meet their needs
- Pay attention to subtle cues from the child in order to prevent overstimulation and discomfort
- Recognize and control own emotions in challenging instances, e.g., a crying child who will not calm down

### Strategies for interaction:

- Respond thoughtfully to child's needs, e.g., reassure child who is feeling uncertain through facial expressions, voice, and touch
- Model appropriate expression of emotions for the child
- Be aware and responsive to the child's needs; read the child's facial cues and body language to help gauge what he/she may be feeling
- Match the child's emotional state through facial expressions and body language, e.g., widen eyes and move up and down when the child starts to laugh and clap
- Provide child with comfort objects when upset, or during difficult times such as transitions, e.g., a blanket, favorite stuffed animal
- Ensure to always say good-bye when separating from the child

**Standard:** Children demonstrate the emerging ability to identify and manage the expression of emotion in accordance with social and cultural contexts.

| **16 months to 24 months:** Children begin to recognize a specific range of emotions and manage their emotions through both the use of advanced soothing strategies and the use of their caregiver. | **21 months to 36 months:** While children still need support from a caregiver, they are able to better manage their emotions and can sustain regulation as they begin to discriminate which skills and strategies to apply in different situations. | **During this age period:** |
|---|---|---|

### Indicators for children include:

- Uses caregiver's facial cues and body language to assist in novel and uncertain situations, e.g., sees a dog for the first time and uses the adult's smile as a cue to cautiously pat the dog
- Uses play to sort out feelings and gain control over them, e.g., projects feeling onto an object, grasps a ball and hugs it tightly to chest when excited
- Uses verbal and nonverbal communication to signal the need for their caregiver, e.g., calls by name, crawls into a familiar adult's lap
- Names some emotions, e.g., "me sad"
- Begins to use "private speech" in order to assist in regulating their emotions, e.g., utters "bear, where is bear" to self

### Indicators for children include:

- Communicates wants and needs verbally, e.g. "pick me up"
- Engages in pretend play to manage uncertainty and fear, e.g., plays doctor and gives someone a "shot"
- Seeks caregiver support when feeling overwhelmed by emotion; may reject support as well
- Expresses emotions through the use of play
- Holds on to a special object during certain times of the day, e.g., blanket, picture, book, stuffed toy

### Strategies for interaction:

- Remain physically and emotionally available for the child; respond thoughtfully to their requests
- Describe feelings when interacting with children
- Use books that illustrate different emotions that children may experience
- Provide sensitive guidance and reassurance to the child when he or she is having difficulty managing and expressing emotions

### Strategies for interaction:

- Remain physically and emotionally available for the child, e.g., share in the child's expressions and feelings of joy and excitement through touch and sound
- Continue to use books that illustrate different emotions that children may experience
- Validate the child's feelings and let them know it is okay to feel the emotions they are experiencing
- Provide balance in both supporting the child and allowing the child space to work through situations independently; use the child's cues to decide what he or she needs
- Prompt and provide words for what the child may be feeling for more complex emotions

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## Range of Tantrums

Tantrums refer to extreme anger or frustration and are characterized by crying and screaming. Tantrums are common and developmentally appropriate behavior in young children. Since children have neither the language nor the capacity to control their emotions and behavior, stress and frustration overcome their little bodies. These powerful feelings are felt by their whole being, and they will often thrash their arms and legs and throw themselves on the floor. Children are mastering new skills, and when they aren't able to accomplish a task, they tantrum to express frustration. Tantrums are common during the second year of life, when children are beginning to verbally communicate. As communications skills improve, tantrums decrease. Young children want a sense of independence and control; therefore, caregivers can provide children with limits and choices to help them feel in control.

# Attention Regulation

The ability to think, retrieve, and remember information, and to solve problems is dependent on the development of attention, or the ability to focus on something in the environment.[24] Attention regulation is closely related to children's culture, cognitive abilities, and the care-

giver-child relationship. Children build their capacity to attend and focus through interactions with their caregivers. Therefore, caregivers should interact in ways that are meaningful for each particular child. The way caregivers interact with children depends on their cultural context. For example, some cultures respond to children's behaviors by following their lead, while other cultures direct children's attention to a particular activity or object.[25] Children will increase their ability to stay focused through these interactions, and this ability will continue to improve as they get older.

Children also build the capacity to attend as their ability to habituate matures. Habituation refers to becoming accustomed to the stimuli occurring in the environment. For example, a two-month-old may become uncomfortable and cry if the lights are too bright, and the noise level is too high. An older toddler may be able to ignore the surrounding noises and stay engaged in a self-directed activity. Caregivers can modify the environment to provide the best setting possible for interaction and play. Usually less stimulation with different objects, sounds, and sights leads to better concentration and learning. It is important to remember that young children cannot attend for very long periods of time and caregivers should adjust their own expectations according to children's developing abilities.

**Standard:** Children demonstrate the emerging ability to process stimuli, focus and sustain attention, and maintain engagement in accordance with social and cultural contexts.

**Discover how Attention Regulation is related to:**

**Standard:** Children demonstrate the emerging ability to process stimuli, focus and sustain attention, and maintain engagement in accordance with social and cultural contexts.

| **During this age period:** | **Birth to 9 months:** Children are attempting to process an abundance of new stimuli every day. Children are also building their internal capacity for sustained attention and regulation through interactions with their co-regulating other. | **7 months to 18 months:** Children begin to have shared interests with others and are building a capacity for purposefully attending to objects and people. Children also begin to hold sustained attention for increasing amounts of time as they are quicker to organize and habituate to stimuli in their environment. |
|---|---|---|
| **Attending** refers to children's ability to remain focused on objects and people for brief periods of time. As they get older, children can attend by remaining engaged for longer periods of time.<br><br>**Habituation** refers to becoming accustomed to and not distracted by stimuli that occur in the environment. | **Indicators for children include:**<br><br>▪ Focuses on objects in the environment during alert states<br>▪ Initiates and briefly maintains social interactions with adults, e.g., establishes eye contact, coos to receive attention<br>▪ Explores environment through senses, e.g., touches and mouths objects<br>▪ Focuses attention on novel objects and familiar caregiver(s)<br>▪ Plays with one object for a few minutes before focusing on a different object | **Indicators for children include:**<br><br>▪ Engages in joint attention with a caregiver, e.g. joins in looking at the same object or shifts gaze to where someone is pointing<br>▪ Maintains more advanced levels of engagement, e.g., repeats actions over and over when enjoying the reaction and result of the experience<br>▪ Focuses on one object or activity for a brief period of time, even with other objects close in proximity; still easily distracted<br>▪ Shifts attention from adults to peers<br>▪ Relies on routines and patterns to maintain an organized state in order to focus |
| | **Strategies for interaction:**<br><br>▪ Engage face to face with the child during the day; smile, coo, and laugh<br>▪ Ensure the child is in a relaxed and alert state when interacting<br>▪ Provide interesting toys, books, and other objects for the child to explore<br>▪ Always provide a variety of options during exploration, e.g., three or four different toys on the blanket<br>▪ Join child in exploration to help expand and sustain attention | **Strategies for interaction:**<br><br>▪ Spend quality time with the child sharing in activities such as reading and playing with toys<br>▪ Support and extend interactions, e.g., demonstrate different ways an object can be used; limit distractions<br>▪ Provide uninterrupted time for the child to play and explore his or her surroundings<br>▪ Create an environment that does not overwhelm the child with too many colors, sounds, and objects; limit choices<br>▪ Provide predictable routines within the day, e.g., story time right after lunch |

**Standard:** Children demonstrate the emerging ability to process stimuli, focus and sustain attention, and maintain engagement in accordance with social and cultural contexts.

| **16 months to 24 months:** Children begin to focus and attend for longer periods of time, in particular while engaged in self-created and goal-directed play. Children also have an increased internal capacity to organize and plan while attending and focusing. | **21 months to 36 months:** Children begin to attend to, engage in, and transition between multiple activities or interactions at a time. Children also have an increased internal capacity to discriminate and strategize while focusing and attending, and can remain focused for longer periods of time. | **During this age period:** |
|---|---|---|
| **Indicators for children include:** | **Indicators for children include:** | **Joint attention** is the shared experience of looking at an object, person, or event together, established by pointing, gesturing, or the use of language and/or vocalizations. |
| ▪ Works to find solutions to simple problems and/or obstacles, e.g., attempts to climb onto a piece of furniture in order to retrieve a toy<br><br>▪ Works on solving increasingly difficult activities, e.g., attempts to solve a simple, three-piece puzzle<br><br>▪ Remains focused for longer periods of time while engaged in self-initiated play<br><br>▪ Attends and stays engaged to often reach a goal, e.g., places all the shapes in the shape sorter | ▪ Attention expands and stays focused on an activity or object even when distractions are present<br><br>▪ Uses self-talk to extend play, e.g., says "now sleepy" to the baby doll after feeding it a bottle<br><br>▪ Plays independently before moving on to a new activity, e.g., engages in block play, reads a book<br><br>▪ Wait time increases, e.g., participates in turn-taking activities<br><br>▪ Transitions between what he or she is engaged in and what is happening in the background, e.g., makes a comment in regard to a conversation happening between another child and adult, while engaged in completing a puzzle | |
| **Strategies for interaction:** | **Strategies for interaction:** | |
| ▪ Provide uninterrupted time for the child to work on activities that interest him or her, e.g., avoid interrupting or intervening when the child actively engages with an object, person, or activity<br><br>▪ Remain available for the child and respond promptly if he or she asks for help<br><br>▪ Create an environment that does not overwhelm the child with too many colors, sounds, and objects; limit choices<br><br>▪ Help expand attention through extending interactions that are interesting to the child | ▪ Observe the child during play and limit adult-directed interruptions while engaged<br><br>▪ Engage in play with the child; create games that encourage the child to find certain objects in the environment<br><br>▪ Provide independence for the child to problem-solve and discover while engaged in play<br><br>▪ Create a quiet space and limit distractions for children to attend and focus<br><br>▪ Focus on extending the child's experiences through the interaction between adult and child instead of focusing solely on objects | |

# Real World Story

Luke is an 18-month-old toddler who is engaged in attempting to place shapes in the shape sorter. Suddenly, he hears another object on the other side of the room start to play music. He moves away from the shape sorter and walks toward the music object. He pushes the buttons on the new object and observes them for a brief period. His caregiver, Sarah, walks into the room and gestures for him to join her. Luke walks to the other side of the room and first picks up the shape sorter before walking back over to Sarah. He hands it over to Sarah. Sarah says, "Oh, you want me to play with you?" Sarah sits down on the floor, as Luke does the same. Sarah empties the shape sorter and grabs one shape and drops it into the bucket. Luke then begins to do the same, one shape at a time.

**This story also relates to:**

**domain 1: Social and Emotional**

**domain 2: Physical**

**approaches to learning**

When he is done, he hands the shape sorter to Sarah. She empties it out and begins again. Luke finishes placing all the shapes in the sorter and then stands up. He walks away and begins to play with a toy car. Sarah watches him, but does not engage with him.

THIS EXAMPLE HIGHLIGHTS how young children use objects to engage and maintain engagement with their caregivers, and how caregivers can structure interactions to support children in attending to items. Luke plays independently, but is interrupted by another object that catches his attention. When he sees his caregiver, Sarah, he walks back to the shape sorter and hands it to her. Clearly, Luke is still interested in the shape sorter but may need more interaction to remain interested. He is easily distracted by other objects in the room. However, once Sarah sits with him, he is completely engaged, and is able to maintain this engagement by handing Sarah the shape sorter again. Once he is done, he simply disengages from the interaction by walking away. Sarah supports Luke's play by following his lead. She waits for Luke to initiate and lead the interaction, and he does. Sarah also knows that if he wants her to share in the interaction with the toy car, he will reach out to her once again.

## Attention and Play

Play is how young children learn. In order to build their attention skills, children benefit from a balance of exploration, choices, and meaningful interactions. Allowing children to freely explore their environment gives them the opportunity to discover new objects and experiences. Children then begin to build attention skills as they figure out what they are seeing and touching. Providing children with choices also helps them learn to attend. For example, caregivers can set out a few objects during play time, which the child can choose to engage with. Providing a limited number of choices allows them to attend and focus on one or two objects, instead of trying to block out distractions. Finally, the interactions, not the objects, are what meaningfully help children in furthering their attention building. Caregivers have to find the right balance between supporting and interacting with children in order for them to explore, discover, and learn from their play.

# Behavior Regulation

In the first three years of life, children's behavior is often described as tantrums and impulsive. These behaviors are developmentally appropriate and normal! The role of the caregiver is extremely important during this period in order to support children in managing their behavior and actions. As in all of development, behavior regulation occurs within children's cultural and social contexts. Culture expectations set up what is acceptable and what is non-acceptable. Caregivers are responsible for communicating these expectations and providing support children need to guide their behavior. Children learn these rules and begin to adapt their behavior depending on individual situations. For example, children may be able to recognize what behaviors they can display at home versus what they can display at a childcare center or at a relative's home.

Behavior regulation starts with attentive caregivers meeting children's needs. If caregivers are consistent in meeting children's needs, they build trust. In infancy, children look to these trusted adults for cues in different situations. This is called social referencing and helps children guide their behavior. They pay very close attention to the facial cues of these adults before acting. In toddlerhood, children continue to use social referencing, but will also use language or private speech to help guide their behavior and actions. While children are developing their capacity in managing their impulses and learning self-control, they still will be able to recognize when they need their co-regulator instead of just relying on their own abilities to control, manage, and adapt their behavior.

**Standard:** Children demonstrate the emerging ability to manage and adjust behaviors in accordance with social and cultural contexts.

**Discover how Behavior Regulation is related to:**

**domain 1: Social & Emotional**
Relationship with Peers, p. 47
Self-Concept, p. 43

**domain 3: Language**
Social Communication, p. 75
Receptive Communication, p. 79

**domain 4: Cognitive**
Logic & Reasoning, p. 113

**approaches to learning**
Confidence & Risk-Taking, p. 139

**Standard:** Children demonstrate the emerging ability to manage and adjust behaviors in accordance with social and cultural contexts.

**During this age period:**

**Birth to 9 months:** Children respond to internal and external states and have little or no self-control over their behavior. Children depend on caregivers to co-regulate their behavior.

**7 months to 18 months:** The use of social referencing emerges and supports children in developing an internal capacity to modify some of their behaviors. Children still depend heavily on the use of their caregiver to help co-regulate their behaviors.

**Internal states** refer to what the body needs, such as hunger, discomfort, or tiredness.

**External states** refer to what the environment demands, such as sounds, actions, touch, or objects.

**Co-regulator** refers to the child's primary caregiver(s), who assists the child in achieving regulation through responses, interactions, and communication.

### Indicators for children include:

- Cries when hungry, tired, uncomfortable, or bored
- Uses physical movements to disengage from interaction, turns head, averts gaze
- Physically explores environment through touch, e.g., sucking, gnawing, hitting, pulling, banging
- Shows curiosity and limited restraint when exploring the environment, e.g., reaches for objects that adults or other children are holding

### Indicators for children include:

- Explores environment while unaware of boundaries and limits, e.g., crawls toward a shelf and attempts to climb it
- Reads cues and body language of caregiver(s) and familiar others to guide reactions and behaviors in novel and uncertain situations
- Demonstrates frustration, e.g., cries, bites
- Has difficulty channeling excitement, e.g., screams, jumps, squeezes, bites
- Chooses between two options, e.g., "You can have the red ball or the blue ball"
- Completes a forbidden action regardless of referencing a caregiver's reaction, e.g., looks toward their caregiver before touching the forbidden object and then touches it anyway

### Strategies for interaction:

- Be emotionally available and sensitive to the child's needs
- Provide consistency and routines for sleeping, eating, and diapering
- Respond promptly and thoughtfully to the child's cues
- Manage own expectations with the understanding that the child cannot control his behavior
- Create a safe environment for the child to actively explore

### Strategies for interaction:

- Provide the child with plenty of warning in between transitions; use picture cards to help
- Guide the child with both nonverbal and verbal communication, e.g., use facial expressions that match what is being said
- Establish routines for everyday activities
- Manage own expectations with the understanding that the child cannot control his behavior
- Use redirection and distraction to avoid power struggles

**Standard:** Children demonstrate the emerging ability to manage and adjust behaviors in accordance with social and cultural contexts.

| **16 months to 24 months:** Children may be able to demonstrate limited self-control over behavior by responding to cues found in the environment. Children also begin to use more complex strategies to help manage feelings of impulsivity. | **21 months to 36 months:** Children demonstrate some limited self-control over their behavior without adult intervention or prompting. Children have knowledge of a wide range of expected behaviors and can manage some of those expectations. Children also have an increased capacity to recognize when they need their caregiver to help regulate instead of relying on their own self-regulation strategies. | **During this age period:** |
|---|---|---|

**Indicators for children include:**

- Communicates "mine" when another child takes a toy away
- Communicates "no" to self when reaching for forbidden objects
- Begins to respond to caregiver's cues and modifies behavior, e.g., does not touch the forbidden object, once recognizing the caregiver is discouraging the action

**Indicators for children include:**

- Increases the use of private speech in everyday play and interactions
- Increasingly reacts appropriately to adults' facial expressions, tone, and affect, before acting on an impulse
- Identifies situations where he or she needs the caregiver to support in controlling behavior, e.g., holds caregiver's hand when crossing the street
- Transitions smoothly if is prepared ahead of time
- Checks in with caregiver through nonverbal and verbal communication, e.g., glances, waves, points, says name, asks a question, all without having to be in close proximity
- Demonstrates an awareness of expectations, e.g., approaches and gently touches a baby, waits for brief periods of time when turn-taking

**Private speech** is children's use of self-directed language to guide, communicate, and regulate their behavior and emotions. While this self-directed language can be heard, it is not intended for others.

**Transitions** are changes in children's activities or locations. Transitions are hard for young children, as they may feel out of control. Therefore, it is essential caregivers prepare children for transitions.

**Strategies for interaction:**

- Provide the child with clear limits and provide reminders of them through the day
- Model thoughtful and respectful behavior when interacting with the child
- Encourage the child to express what he or she is feeling, e.g., stomp feet if mad

**Strategies for interaction:**

- Prepare the child for changes in routines and transitions by providing them plenty of time to anticipate and plan for change
- Acknowledge and praise desirable behavior by saying what the child did and why it is important
- Be consistent in limit-setting and responses
- Briefly revisit behavior after the child has reached a calm state, e.g., "You were so upset, I am so sorry you felt that way. It's important to remember that we do not hit our friends."

## Behavior Regulation and Experiences

Behavior regulation is often challenging because it is based on children's experiences, which may differ from one child to another, yet, there are certain societal expectations that children must adhere to, especially when these expectations are safety-related. However, if children have not been exposed to "common" expectations, children may not act in the "expected" manner. For example, children who live in high-rise buildings may see windows as dangerous and refuse to get close to any window, even at ground level. Or, children who live in one-story homes may attempt to climb a set of stairs without an idea that they can fall down. Both these examples highlight the important role context plays in behavior regulation. These children are not purposefully "misbehaving" or having difficulty with their impulses; they are exploring the world based on what is familiar and comfortable to them.

*Keep In Mind*

Children do not master self-regulatory tasks in the first three years of life. Below are some of children's behaviors that demonstrate the beginning signs of self-regulation. By 36 months, children:

☐ Can recover from stressful situations with support of caregivers

☐ Have limited self-control over behavior, with support from caregivers

☐ Can attend for increasing amounts of time

☐ Can manage some of their eating, sleeping, and eliminating processes with support from caregivers

# Social & Emotional Development

Healthy social and emotional development in young children depends on positive and nurturing relationships with the important adults in their lives. Relationships are the foundation for children's social and emotional development and support and influence how they learn about the world around them.

Positive relationships also help build secure attachments between children and their primary caregivers. Children learn through everyday interactions with their caregivers, and it is these early experiences that help them build trust, security, compassion, and empathy. These important interactions are described as the "social dance" between children and caregivers, and provide them with the first experiences in communication and emotional expression.[26] These early experiences help children establish relationships with adults and peers, and help them learn about identifying, expressing, and managing emotions.

Children need to build trust in their caregivers in order to explore and learn. Caregivers help build this trust by being responsive and consistent in meeting children's needs. These sensitive responses and interactions help children bond with and form secure attachments with their primary caregivers. In early infancy, children rely entirely on these caregivers to meet their basic emotional and physical needs. Emotionally available and responsive caregivers provide young children with feelings of security and predictability, and support children in co-regulating their emotions. This co-regulation is important in helping children learn to identify and manage their own emotions in the future. Therefore, it is important for caregivers to be sensitive to children's needs when responding, and engage in genuine interactions that are affectionate and nurturing.

Children begin to recognize that they are separate from their caregivers between six and nine months of age.[27] This new self-awareness is the very beginning of self-concept and empathy, as children start to recognize their own feelings. Children, in the context of their attachment relationships, express their emotions in a more appropriate and effective manner. As children get older, they are able to understand and respond to the feelings of others, a skill that is needed for positive social relationships. Children continue to rely on caregivers to

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have their basic needs met and to help regulate their emotions. They also use their caregivers for reassurance, guidance, and cues on how they should act and feel within their social and cultural contexts. Children practice these new social skills through communication, creative expression, and play.

The early relationships between children and primary caregivers are very special, but they are not always perfect. Children are born with their own temperament, which is their unique way of thinking, behaving, and reacting. Children's temperament may be different from their caregivers'; therefore it is important that children have a "goodness of fit" with their caregivers to support healthy emotional development.[28] Not all needs and interactions will be met or handled smoothly; this is often described as a mismatch between children and caregivers. Children can emotionally recover and reconnect with their caregivers when these mismatches are repaired in a positive manner. Mismatch and repair is common and part of normal social and emotional development.[29]

*Children are born with their own temperament, which is their unique way of thinking, behaving, and reacting.*

# Attachment Relationships

Secure attachment relationships are the foundation for healthy social and emotional development. Children create special bonds with one or a few adults who are warm, sensitive, responsive, and dependable in meeting their needs. These relationships help children gain trust, confidence, and security, all important in order for children to explore, learn, interact, and build relationships with others.

Attachment relationships first consist of meeting children's basic needs through sensitive caregiving and synchrony. If these needs are consistently met, trust develops. Once children begin to crawl and walk, they use their attachment figures as a **secure base for exploration.**[30] Children demonstrate **proximity-seeking behaviors** to connect and reconnect to their attachment figures during exploration. They may crawl away for a short time, stop, and crawl back toward their attachment figure in order to "check in." Once children feel safe and secure, they resume exploring their environment. A normal part of attachment relationships is separation anxiety. **Separation anxiety** occurs when there is a physical separation between children and their attachment figure. Securely attached children miss their caregiver when separated and welcome their reappearance.

Children's need for physical proximity lessens as they grow; instead, they use other skills such as language, eye contact, and gestures to stay connected to their attachment figures. Even with these new social skills, children will continue to seek physical closeness to their attachment figures. Secure attachment relationships provide children with feelings of self-worth and confidence. Children feel they are important and special in the lives of others.

**Standard:** Children form secure attachment relationships with caregivers who are emotionally available, responsive, and consistent in meeting their needs.

**Discover how Attachment Relationships is related to:**

**self-regulation**

Emotional Regulation, p. 17
Behavior Regulation, p. 25

**domain 2: Physical**

Gross Motor, p. 57
Self-Care, p. 69

**domain 4: Cognitive**

Memory, p. 97

**approaches to learning**

Confidence & Risk-Taking, p. 139

**Standard:** Children form secure attachment relationships with caregivers who are emotionally available, responsive, and consistent in meeting their needs.

| During this age period: | **Birth to 9 months:** Children begin to build trust, initiate interaction, and seek proximity with one (or a few) primary caregiver(s). | **7 months to 18 months:** Children trust in, engage with, and seek reassurance from their primary caregiver(s). Children can confidently explore their environment when in close physical proximity to an attachment figure. |
|---|---|---|

**Separation anxiety** begins to occur between nine and fourteen months and is expressed in tears, sadness, or anger when a child is physically separated from his/her primary caregiver(s).

**Stranger anxiety** is a normal part of development in which children may cling to a familiar adult, cry, or look frightened when an unfamiliar person appears too soon or too close.

### Indicators for children include:

- Establishes, maintains, and disengages eye contact
- Responds to caregiver(s) by smiling and cooing
- Seeks comfort from a familiar caregiver
- Imitates familiar adults' gestures and sounds
- Demonstrates preference for familiar adults
- Exhibits separation anxiety, e.g., does not want to be held by another person when being held by primary caregiver

### Indicators for children include:

- Distinguishes between primary caregivers and others
- Attempts to change the situation when separation anxiety occurs, e.g., follows caregiver(s) when he or she leaves the room
- Uses social referencing with caregiver(s) when in uncertain situations, e.g., will glance at caregiver's face for cues on how to respond to an unfamiliar person or new situation
- Uses key adults as a "secure base" when exploring the environment
- Exhibits stranger anxiety and concern in presence of an unknown person or a new situation
- Seeks comfort from caregiver(s) and/or a familiar object, e.g., blanket, stuffed animal
- Initiates and maintains interactions with caregiver(s)

### Strategies for interaction:

- Provide prompt, responsive, and sensitive care to the child's needs
- Hold, cuddle, smile, and interact with the child
- Follow the child's cues; allow the child to socially disengage when ready
- Provide a loving and nurturing environment with trustworthy adults, and assign a primary caregiver to consistently take care of the child's needs

### Strategies for interaction:

- Talk and sing to the child often; use opportunities such as diaper changes and feeding time
- Comfort and reassure the child as needed
- Follow the child's lead and read the child's cues when engaged in interactions
- When separating from a child, gesture and say good-bye, reassuring the child that you will be returning; in childcare settings, comfort and reassure the child once the primary caregiver has left
- When reuniting with a child after separation has occurred, allow the child the necessary time to reconnect

**Standard:** Children form secure attachment relationships with caregivers who are emotionally available, responsive, and consistent in meeting their needs.

| **16 months to 24 months:** Children begin to use nonverbal and verbal communication to connect and reconnect with their attachment figure. | **21 months to 36 months:** Children demonstrate a desire for their attachment figure to share in their feelings, responses, and experiences. Behaviors that demonstrate a need for physical proximity with the primary caregiver decrease, while in certain instances of distress, some children seek to be close to their attachment figure. | **During this age period:** |
|---|---|---|
| **Indicators for children include:** | **Indicators for children include:** | |
| ▪ Shows an emotional connection with familiar adults other than the primary caregiver<br>▪ Uses imitation and pretend play to make sense of relationships, e.g., uses a toy to "brush" hair, or feeds and rocks a doll<br>▪ Plays physically farther away from primary caregiver with increasing confidence; moves closer as needed<br>▪ Seeks physical closeness when distressed<br>▪ Actively seeks emotional responses from caregiver(s) by waving, hugging, and crying | ▪ Uses glances and words to stay connected, without having to be physically near or touching the caregiver<br>▪ Initiates activities that are meaningful in the relationship, e.g., brings over a favorite book to be read together<br>▪ Communicates thoughts, feelings, and plans to familiar adults<br>▪ Seeks adult assistance with challenges<br>▪ Separates with assistance from attachment figure with minimal anxiety | **Secure base behavior** is described as children's ability to use their primary caregiver(s) as both a physical and an emotional base while exploring their environment. |
| **Strategies for interaction:** | **Strategies for interaction:** | |
| ▪ Comfort and acknowledge the child's feelings of distress; provide words for the emotions the toddler is exhibiting<br>▪ Set appropriate and consistent limits; ensure to take realistic expectations into account<br>▪ Provide ample opportunities for play and interaction with nurturing adults<br>▪ Be physically and emotionally available for the child, especially after reuniting after a separation has occurred<br>▪ Respond to the child's attempts to seek out a response, e.g., blow a kiss back after the child blows a kiss<br>▪ Model appropriate behaviors, e.g., how to emotionally react in situations, how to speak to peers | ▪ Show empathy and acknowledge how the child is feeling<br>▪ Genuinely praise the child as he or she shares accomplishments<br>▪ Respond with interest as the child engages in conversation<br>▪ Recognize and respond to the child's verbal and nonverbal communications<br>▪ Prepare the child for separation by telling him or her good-bye and that you will return | |

## Good-enough Parenting

Parenting is influenced by culture, community, and family history.[31] Each parent or caregiver has different goals they hope to meet when raising their children. Therefore, when the question arises of what good-enough parenting looks like, there are usually different answers among parents or caregivers. What is consistent is the need for children to form secure attachment relationships with primary caregivers who are emotionally available, responsive, and consistent in meeting their needs. These three characteristics are often said to be "good enough" and contribute to children feeling loved and nurtured.[32]

A "good-enough parent" also takes into account the individuality of his or her children, and parents to complement these attributes, instead of forcing children to comply with the parent's own needs and wants.[33] This parenting approach demonstrates sensitivity toward children and encourages parents and caregivers to respond thoughtfully in different situations.

# Emotional Expression

In infancy, children express their feelings through both nonverbal and verbal communication and depend on their caregivers to read and recognize their cues. Emotional expression is not developed in isolation; children's emotional expression is related to their ability to regulate their emotions, and they heavily depend on their caregivers to help them. In addition, emotional expression is closely linked to the cultural and societal influences of family and environment. Children's relationships with their caregivers help them develop the ability to identify and express both their negative and positive emotions in a socially and culturally acceptable way.[34]

The emergence of the social smile around six to eight weeks of age is the first expression noted by caregivers. However, children communicate their feelings and needs to their caregivers as soon as they are born through signals and gestures. As they mature, children start to use language and gestures to express their feelings. Early on, young children express feelings but do not have an understanding of what they are feeling. Therefore, it is important for caregivers to name feelings that children express as well as providing culturally appropriate models of how to react when feeling certain emotions. These strategies provide children with the support needed to identify their own feelings and an idea of how they can express themselves while learning to better manage their growing range of emotions. The ability to express and manage emotions impacts children's emotional development and also influences how children form social relationships with others.

**Standard:** Children demonstrate an awareness of and the ability to identify and express emotions.

**Discover how Emotional Expression is related to:**

**self-regulation**

**Emotional Regulation, p. 17**
**Behavior Regulation, p. 25**

**domain 3: Language**

**Receptive Language, p. 79**
**Expressive Language, p. 83**

**domain 4: Cognitive**

**Concept Development, p. 93**

**Standard:** Children demonstrate an awareness of and the ability to identify and express emotions.

| **During this age period:** | **Birth to 9 months:** Children begin to express a wide range of feelings through verbal and nonverbal communication, and begin to develop emotional expression with the assistance of their caregiver(s). | **7 months to 18 months:** Children begin to express some emotions with intention, and with the help of their caregiver(s) children can increase their range of emotional expression. |
|---|---|---|

The emergence of the social smile and interactions with caregiver(s) are the first **intentional** or goal-directed behaviors that children display. Intentional behaviors become increasingly complex and purposeful as children grow.

**Indicators for children include:**

- Uses facial expressions and sounds to get needs met, e.g., cries, smiles, gazes, coos
- Expresses emotions through sounds and gestures, e.g., squeals, laughs, claps
- Demonstrates discomfort, stress, or unhappiness through body language and sounds, e.g., arches back, moves head, cries

**Indicators for children include:**

- Expresses wants with intentionality, e.g., pushes an unwanted object out of the way, reaches for a familiar adult when wanting to be carried
- Expresses fear by crying or turning toward caregiver(s) for comfort
- Shows anger and frustration, e.g., cries when a toy is taken away
- Recognizes and expresses emotion toward a familiar person, e.g., shows emotion by hugging a sibling

**Strategies for interaction:**

- Respond and comfort the child in order to meet needs; act as a co-regulator for the child, e.g., feed the child when hungry, rock the child when tired
- Describe the emotion the child is expressing, e.g., "I can see you are so excited about reaching that toy!"
- Model facial expressions to match emotions, e.g., widen eyes and open mouth to express surprise

**Strategies for interaction:**

- Respond to child's display of fear or distress; reassure and comfort the child
- Model emotional expression for the child by making facial expressions and using words to name the emotion
- Reciprocate actions and gestures the child initiates, e.g., wave hello, blow kisses, give hugs

**Standard:** Children demonstrate an awareness of and the ability to identify and express emotions.

| | | **During this age period:** |
|---|---|---|
| **16 months to 24 months:** Children continue to experience a wide range of emotions (e.g., affection, frustration, fear, anger, sadness). At this point in development, children will express and act on impulses, but begin to learn skills from their caregiver(s) on how to control their emotional expression. | **21 months to 36 months:** Children begin to convey and express emotions through the use of nonverbal and verbal communication. Children also begin to apply learned strategies from their caregiver(s) to better regulate these emotions. | **Co-regulator** refers to the child's primary caregiver(s) who assists the child in achieving regulation through responses, interactions, and communication. |

**Indicators for children include:**

- Demonstrates anger and frustration through a wide range of physical, vocal, and facial expressions, e.g., temper tantrums
- Expresses pride, e.g., smiles, claps, or says, "I did it" after completing a task
- Attempts to use a word to describe feelings to a familiar adult
- Expresses wonder and delight while exploring the environment and engaging others

**Indicators for children include:**

- Attempts to use words to describe feelings and names emotions
- Acts out different emotions while engaged in pretend play, e.g., cries when pretending to be sad, jumps up and down for excitement
- Begins to express complex emotions such as pride, embarrassment, shame, and guilt
- Engages in play to express emotion, e.g., draws a picture for a caregiver because he or she misses them, hides a "monster" in a box due to a fear

**Strategies for interaction:**

- Use words to describe the emotion; this helps the child associate the feeling with the name
- Pay close attention to the cues the child is expressing
- Model appropriate ways to express different feelings
- Acknowledge and validate the emotions the child is feeling, e.g., "I can see you are so excited by the way you are jumping up and down."

**Strategies for interaction:**

- Discuss feelings with the child; reassure him or her that it is okay to feel different emotions
- Recognize that the child may need some assistance in expressing feelings
- Allow other channels in which children can express their emotions, e.g., art, dance, imaginary play
- Respect cultural differences when it comes to expressing emotions; never discount what the child is sharing and expressing
- Ensure to continue reading the child's cues even as the child begins to use words to describe feelings

## Role of the Co-regulator

The role of the co-regulator in the lives of infants and toddlers is to help children build emotional expression and competence. As with many of the developmental milestones in young children's lives, emotional expression and competence are culturally defined.[35] The ability of children to express emotion in a positive manner is closely tied to their cultural expectations, their emotional regulation, and the role of their co-regulator. At first, the role of the co-regulator is to recognize children's signals and cues when they are expressing their feelings and to respond in a manner that thoughtfully meets their needs. The role of the co-regulator later includes modeling positive emotional expression and providing words to label feelings. These strategies help children build the ability to recognize what they are feeling and begin to manage their emotions in a healthy manner.

# Real World Story

Reena is 30 months old and is of Indian descent. She attends childcare during the week while both her parents work full time. She is a happy little girl, who enjoys reading books and singing songs. Her childcare provider is Lisa. Lisa has set up a few different activities for children to choose from. There is a table with play dough, a pretend kitchen with pretend fruits and vegetables, and a water table with different floating objects in it. Reena gets up from sitting on the floor where she had been working on a puzzle and makes her way to the table with the play dough. She sits down and begins to roll a piece of play dough against the table. Across from Reena is Michael, who is 35 months old. Michael grabs Reena's play dough and pulls a big chunk off for himself. Reena remains quiet and looks down without saying anything. As Lisa walks around the room she notices Reena is not playing with the play dough. She kneels down next to Reena and asks her if everything is all right. Reena looks up, and a tear rolls down her cheek. She looks at Michael and points toward the play dough in front of him. Lisa asks, "Did he take some of your play dough?" Reena nods. Lisa looks at Reena and says, "I can see why you are feeling sad, it does not feel good when friends take things from us." Reena nods in agreement.

IN THIS EXAMPLE we see a common interaction among children. While Michael knows that it is not okay to take things away from peers, he does not have the impulse control to stop his behavior. Reena is sad and angry but reacts to Michael's action in a passive way. This passive manner of expressing emotions is more common in Eastern cultures.[36] Children from Western cultures often express negative emotions in an active manner that includes facial expressions and gestures.[37] Reena has learned from observing family that the expression of negative emotions is not highly encouraged. Lisa plays the role of the co-regulator in helping Reena identify what she is feeling and validates that it is okay for her to feel that way. This helps Reena name her emotions and builds understanding of why she feels the emotions she does.

**This story also relates to:**

**self-regulation**
**Emotional Regulation, p. 17**

**domain 1: Social & Emotional**
**Relationship with Peers, p. 47**

# Relationship with Adults

Social interactions and relationships are extremely important for healthy social and emotional development. The first relationships children establish are with their attachment figure(s). While they are developing these attachment relationships, children also begin to interact and respond to other adults who are often present in their lives. Children use their attachment relationships as a springboard to develop these relationships with familiar adults. However, children still prefer their attachment figures in the majority of instances, especially when they are distressed or in new situations.

Children seek out relationships with adults for a variety of reasons. They use these relationships to feel safe, learn about their world, and socially interact with others.[38] In early infancy, children engage in social interactions through eye contact and sounds with both unfamiliar and familiar adults. As they near one year of age, stranger anxiety sets in and children become selective of familiar adults. Children purposefully engage familiar adults in playful two-way interactions and seek out these adults when needing guidance and help. As children's cognitive and play skills improve, they begin to take on a distinct interest in adult roles and often actively explore these roles through play.[39] Older toddlers use language to connect with adults and share their thoughts, feelings, and ideas with them. The ability to form positive relationships with adults directly supports children in developing healthy relationships with peers, and helps build children's self-concept.

**Standard:** Children demonstrate the desire and develop the ability to engage, interact, and build relationships with familiar adults.

**Discover how Relationship with Adults is related to:**

**self-regulation**

Emotional Regulation, p. 17
Attention Regulation, p. 21

**domain 3: Language**

Social Communication, p. 75

**domain 4: Cognitive**

Memory, p. 97

**approaches to learning**

Curiosity & Initiative, p. 131

**Standard:** Children demonstrate the desire and develop the ability to engage, interact, and build relationships with familiar adults.

| During this age period: | **Birth to 9 months:** Children develop the ability to signal for caregivers. By the end of this age period, children begin to engage in playful communication with familiar adults. | **7 months to 18 months:** Children use familiar adults for guidance and reassurance. Children also initiate and engage in back-and-forth interactions with familiar adults. |
|---|---|---|

### Indicators for children include:

- Uses signals to communicate needs, e.g., crying, body language, and facial expressions
- Attempts to engage both unfamiliar and familiar adults
- Engages in social interactions with adults through smiles, coos, and eye contact
- Demonstrates preference for familiar adults, e.g., reaches hands out to signal for caregiver(s)
- Cautious of unfamiliar adults
- Begins to engage in simple, back-and-forth interactions with a familiar adult, e.g., plays "peek-a-boo," babbles in response to an adult speaking and repeats this interaction

### Indicators for children include:

- Looks for caregiver's response in uncertain situations
- Engages with adults during play, e.g., bangs on a toy drum and repeats action after an adult completes the same action
- Uses key adults as a "secure base" when exploring the environment
- Uses "social referencing" when encountering new experiences, e.g., glances at a caregiver's face for cues on how to respond to an unfamiliar person or unknown object
- Draws a familiar adult into an interaction, e.g., hands a book or toy to engage in together

### Strategies for interaction:

- Provide prompt, responsive, and sensitive care to the child's needs
- Provide a loving and nurturing environment with trustworthy adults, and assign a primary caregiver to consistently take care of the child's needs
- Engage with the child through everyday, loving interactions
- Comfort the child when upset, frightened, or overwhelmed, e.g., gentle hugs or using a soothing voice
- Follow the child's lead when interacting and playing

### Strategies for interaction:

- Follow the child's lead in play; respond genuinely while interacting
- Respond to the child consistently; this helps build trust
- Offer support through reassuring behaviors such as smiles, hugs, and cuddles
- Provide dedicated periods of time to play and engage with the child with limited interruptions

**Standard:** Children demonstrate the desire and develop the ability to engage, interact, and build relationships with familiar adults.

| **16 months to 24 months:** Children actively seek out familiar adults and begin to show an interest in adult tasks and roles. | **21 months to 36 months:** Children interact with adults to communicate ideas, share feelings, and solve problems. Children also actively explore adult roles and tasks. | **During this age period:** |
|---|---|---|

**Indicators for children include:**

- Builds emotional connections with other familiar adults, in addition to primary caregiver(s)
- Seeks adult assistance with challenges but may refuse help and say "no"
- Responds to guidance, e.g., places the shape into the shape sorter after caregiver demonstrates how to
- Imitates a familiar adult's actions, e.g., waves hands around while pretending to talk on the phone after seeing caregiver make those same actions

**Indicators for children include:**

- Imitates adult roles and activities through pretend play, e.g., goes grocery shopping, or prepares a meal
- Initiates activities that are meaningful in the relationship, e.g., brings over a favorite book to be read together
- Communicates thoughts, feelings, questions, and plans to both familiar and unfamiliar adults
- Demonstrates desire to control or make decisions independent from adults

**Strategies for interaction:**

- Comfort child and acknowledge her or his feelings of distress; provide words for emotions the child is exhibiting
- Set appropriate and consistent limits; ensure to take realistic expectations into account
- Provide choices for the child, e.g., "Would you like the blue cup or the yellow cup?"
- Establish everyday routines and rituals
- Allow ample time for pretend play

**Strategies for interaction:**

- Play and spend quality time with the child on a daily basis
- Respond with interest as the child engages in conversation
- Provide materials with which the child can play, e.g., toy kitchen, phone, baby doll
- Provide choices for the child to help him or her feel more in control, e.g., "You may have milk or juice."

**This story also relates to:**

**domain 3: Language**
**Social Communication, p. 75**

**domain 4: Cognitive**
**Memory, p. 97**



# Real World Story

Brandon is a happy, 10-month-old, social baby who has a secure attachment with his mother. He is beginning to actively engage with other familiar adults through interactions and simple play. For the last five months, Brandon has accompanied his mother to their neighborhood dry cleaner, once a week. The owner of the dry cleaner is a warm and loving woman named Grace. Every time Brandon and his mother have entered the dry cleaner, Grace has been very consistent in always saying "hello" to Brandon, gently squeezing his tummy, and demonstrating enthusiasm during her interactions with him. Brandon has also observed his mother's facial expressions and interactions with Grace, which always consist of smiles and relaxed and positive conversation. Brandon, who has by now developed a sense of awareness of strangers versus familiar adults, squeals with delight the minute his mother opens the door of the dry cleaner. While he will shy away from unfamiliar adults who reach out their arms to hold him, he comfortably leans in toward Grace as she gestures for him to come into her arms. He laughs and moves his body up and down to express his enjoyment of being carried by

her, often attempting to pull her glasses off her face. Grace gently redirects his hands with her hands and moves them up and down. When it is time to say good-bye, Brandon leans toward his mom, and waves "bye-bye" to Grace as he leaves.

IN THIS EXAMPLE, Brandon is building relationships with other adults who consistently appear in his life. His strong attachment to his mother has provided the foundation for meaningful social interactions, and he is able to rely on his mother to provide security in different and/or new situations. Grace's consistent interactions with Brandon have contributed to their relationship as Brandon connects Grace with enjoyable experiences, and he now anticipates seeing Grace when his mother opens the door of the dry cleaner. Even though Brandon has begun to exhibit stranger anxiety, the use of social referencing helps him recognize that Grace is someone whom his mother is comfortable with, and this makes him less hesitant around her. This example highlights how social emotional development, language development, and cognitive development all work together to support children in forming special relationships with others.

# Self-Concept

Self-concept involves children's thoughts and feelings about themselves. Children are not born with the ability to recognize their own feelings and thoughts, and depend on their early relationships and experiences with caregivers to shape and influence the development of their self-concept. Children's emerging awareness of themselves as separate people with thoughts and feelings is crucial in forming positive relationships with others while helping build self-confidence in their own abilities.

Self-concept is first marked by a physical realization that children are separate from their primary caregivers.[40] In the first few months of life, children see themselves as part of their primary caregiver, usually their mother. Around five months of age, children realize they may be separate individuals and spend the next few months developing a sense of self-awareness.[41] Older infants can respond to their names, and around 18 months of age, children demonstrate self-recognition as they are able to identify themselves in mirrors and photographs.

The social development of children in these years also supports the idea that children are building their mental self-concept. This is first seen in children's ability to identify their body parts when asked, and to refer to themselves in the first person. Around the same time children demonstrate self-recognition, they begin to use words such as "I" and "mine."[42] Children continue to develop self-concept as they demonstrate an awareness of their own characteristics and begin to identify their own feelings and preferences in everyday interactions.

**Standard:** Children develop identity of self.

**Discover how Self-Concept is related to:**

**self-regulation**
**Physiological Regulation, p. 13**
**Emotional Regulation, p. 17**

**domain 3: Language**
**Receptive Communication, p. 79**
**Expressive Communication, p. 83**

**domain 4: Cognitive**
**Concept Development, p. 93**

**Standard:** Children develop identity of self.

| | |
|---|---|
| **During this age period:** | **Birth to 9 months:** Children begin to recognize themselves as individuals, separate from others. At first, young infants are not aware that they are separate beings. However, between six and nine months of age, the realization that they are separate people emerges. | **7 months to 18 months:** Children begin to have a greater awareness of their own characteristics and begin to express themselves with their own thoughts and feelings. |

**Self-concept** refers to the child's developing ability to realize that one's body, mind, and actions are separate from those of others.

### Indicators for children include:

- Demonstrates interest in faces and voices of others
- Explores his or her own hands and feet
- Recognizes own name, e.g., looks up, or turns head toward a person who is saying his/her name
- Recognizes and prefers familiar adults and siblings, e.g., leans toward caregiver when being held by someone else
- Initiates interactions with others, e.g., imitates actions, plays peek-a-boo
- Begins to display the beginning of joint attention, e.g., points to objects and people
- Demonstrates separation anxiety, e.g., cries when caregiver leaves the room

### Indicators for children include:

- Shows awareness of significant people by calling them by name, e.g., "papa"
- Engages in joint attention with familiar others, e.g., shares in looking and engaging with objects and people
- Responds with vocalizations or gestures when hears name
- Demonstrates interest in looking in mirror
- Uses gestures and some words to express feelings, e.g., "no"
- Uses social referencing to guide actions and begins to test limits
- Points to and identifies body parts on him or herself, e.g., points to eyes when asked, "Where are your eyes?"

### Strategies for interaction:

- Cuddle, nurture, and respond thoughtfully to the child's signals
- Use the child's name during interactions
- Provide mirrors for the child to look at self
- Read books together that reflect the child's culture
- Acknowledge the child's efforts to initiate and engage, e.g., look toward where the child is pointing and name what he or she is pointing at

### Strategies for interaction:

- Use names when referring to significant people in the child's life
- Use affective attunement to match the feelings of the child, e.g., use facial expressions and body language to express the same emotions the child is vocalizing
- Allow child to express wants and desires; provide choices in order to allow him or her some control
- Provide limits and boundaries for the child
- Use songs and finger plays that help the child identify the names of different body parts

**Standard:** Children develop identity of self.

| | | During this age period: |
|---|---|---|
| **16 months to 24 months:** Children become aware of themselves as distinct from others both physically and emotionally. During this period, children often struggle with the balance of being independent and needing nurturing from their caregiver(s). | **21 months to 36 months:** Children begin to identify and discuss their connections to other people and things. Children can also identify their feelings and interests and communicate them to others. | |

### Indicators for children include:

- Demonstrates awareness of self, e.g., touches own nose in the mirror
- Able to express his or her name
- Refers to self with gestures and language
- Demonstrates understanding and use of concepts through words such as "mine," "me," and "you"
- Points to self in images and other types of media
- Frequently tests limits
- Asks for help from familiar adults but may begin to attempt to complete tasks autonomously

### Indicators for children include:

- Names people in his/her family and shares stories about them
- Asks for help from familiar adults but pushes away and refuses help
- Incorporates roles of family members in play
- Begins to show an interest in describing physical characteristics, e.g., "I have blue eyes"
- Demonstrates preferences, e.g., "I want the green cup"
- Communicates feelings, e.g., may say "I'm sad," or stomps feet when mad
- Begins to understand concept of possession, e.g., "yours," "hers," "his"

### Strategies for interaction:

- Provide words to the emotion the child is expressing; validate his or her feelings
- Provide nurturing care, especially when the child is seeking comfort
- Engage in conversations with the child often; provide opportunities for child to talk about him- or herself in a meaningful context
- Set boundaries with the child and provide the child with choices throughout the day.
- Use redirection, e.g., hand an object to a child who is about to start crying because another child has an object he or she wants

### Strategies for interaction:

- Listen and respond with interest as the child shares meaningful information about his/her life
- Ask the child about his/her day, friends, and favorite things
- Acknowledge the child's efforts in sharing stories, thoughts, and questions, e.g., comment and answer promptly and genuinely
- Be aware and respectful of cultural differences in regard to independence
- Encourage the child to bring in a picture of his or her family; keep it in a place where the child can access it

## Why the Terrible Twos Aren't So Terrible

Children begin to visibly exert their independence during the toddler years. Often, this struggle between the desires of children and the desires of their caregivers leads to screams, tears, and frustration. This age period is commonly described as the "terrible twos." In understanding how children develop, we know that expectations of behavior are determined by societal and cultural contexts. The "terrible twos" are not terrible in every society, as the expectations adults have for young children differ.[43] In the Western culture, we encourage independence and expect very young children to control behavior and emotions that they cannot manage at their age. Realistic expectations, patience, and sensitive guidance on the part of caregivers are important for young children and can help make the "terrible twos" pretty terrific!

# Relationship with Peers

Positive experiences and relationships with adults help children establish meaningful and special relationships with peers. Children experience interactions and behaviors with adults that help develop the social and emotional skills needed to positively interact with peers. Children begin to gain self-awareness and demonstrate an interest in other children by simply observing or touching them. Observation and interest lead to imitation and simple interactions, such as handing over a toy or rolling a ball. Older toddlers engage in more complex interactions and social exchanges during play while building social connections. Children this age mainly act on impulses and have difficulty controlling their emotions and behaviors, yet begin to learn appropriate social behaviors through the cues and information that their caregivers model for them.

Peer relationships also play an important role in both the development of children's self-concept, and the emergence of empathy. Children's ability to positively engage and play with other children relies on their awareness of others' feelings and viewpoints.[44] As children grow, they gain a basic awareness of what other children are expressing. This awareness eventually grows into understanding and behaving in a manner that is sensitive to what others are feeling. These successful interactions and experiences with others help children build self-confidence and a sense of self-worth. This confidence is important in supporting children's ability to build and maintain meaningful relationships with their peers.

> **Standard:** Children demonstrate the desire and develop the ability to engage and interact with other children.

**Discover how Relationship with Peers is related to:**

**Standard:** Children demonstrate the desire and develop the ability to engage and interact with other children.

| During this age period: | **Birth to 9 months:** Children begin to interact with their environment and people around them; an interest in other young children emerges. | **7 months to 18 months:** Children will begin to observe and imitate other children's behaviors. |
|---|---|---|

**Play** is integral to how children learn about and make sense of their world. Play is enjoyable and spontaneous, and children use play to discover, pretend, and problem-solve.

### Indicators for children include:

- Demonstrates effort to interact and engage, e.g., uses eye contact, coos, smiles
- Observes other children in the environment
- Shows interest in both familiar and unfamiliar peers
- Cries when hearing another child cry
- Reaches out to touch another child
- Attempts to imitate actions, e.g., bangs a toy

### Indicators for children include:

- Shows interest in another child by moving closer, e.g., rolls, crawls, or walks toward the child
- Imitates actions of another child, e.g., rolling a car
- Engages in a simple, reciprocal game such as "pat-a-cake"
- Begins to engage in parallel play, in closer proximity to other children but no interaction is attempted

### Strategies for interaction:

- Respond positively to the child's coos and vocalizations with both verbal and facial expressions
- Hold, cuddle, smile, and interact with the child
- Imitate the child's sounds and actions in a positive manner
- Read and play with the child often; if possible, use books that reflect the home culture
- Engage with the child in exploration and play; follow the child's lead

### Strategies for interaction:

- Provide opportunities for the child to play and interact with other children
- Model positive interaction while playing and spending time with the child
- Provide activities that can be done in a group setting, such as singing, movement activities, or reading a story
- Provide a variety of toys for children to explore and play with

**Standard:** Children demonstrate the desire and develop the ability to engage and interact with other children.

| **16 months to 24 months:** As play and communication matures, children begin to seek out interactions with peers. | **21 months to 36 months:** Children engage and maintain interactions with their peers, through the use of developing social and play skills. | **During this age period:** |
|---|---|---|

### Indicators for children include:

- Gestures in order to communicate a desire to play near a peer
- Demonstrates enthusiasm around other children
- Expresses frustration when another child takes something away from him or her, e.g., a toy
- Begins to engage in simple reciprocal interactions, e.g., rolls a ball back and forth
- Demonstrates a preference for parallel play, e.g., plays next to other children with similar toys with little or no interaction

### Indicators for children include:

- Demonstrates a preference toward select peers
- Becomes frustrated with peers, e.g., yells "no" if a peer tries to interfere in something he or she is engaged in
- Participates in sharing, when prompted
- Communicates with other children in different settings, e.g., talks to a peer during snack time, or hands a peer a book
- Begins to engage in more complex play with two or three children

### Strategies for interaction:

- Recognize and respond thoughtfully to the child's verbal and nonverbal communication
- Create a special time when two or three children read a book with a caregiver
- Acknowledge sharing and thoughtful behaviors, e.g., a child who pats another child who is upset, or when a child hands over a toy to another child
- Provide more than one of the same toy for the child and his or her peers to play with
- Use distraction and redirection to help limit conflicts among children

### Strategies for interaction:

- Create small groups, each with a caregiver, to share some quality time with particular children
- Provide toys that can be played with by two or more children at a time
- Provide activities that encourage sharing, while limiting the risk for frustration, e.g., for art projects, make more than enough art materials available for the children participating
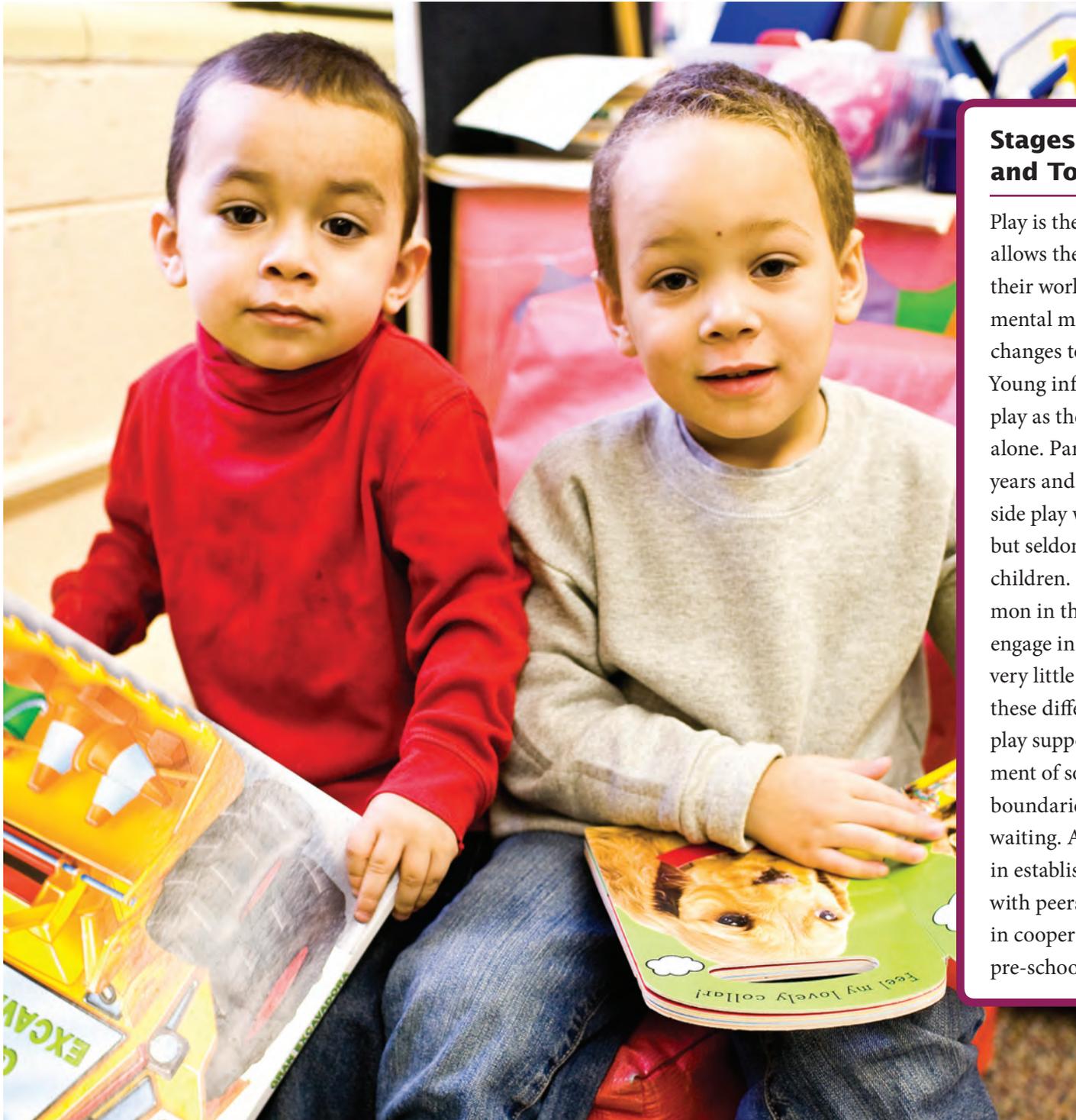
### Stages of Play for Infants and Toddlers

Play is the work of children, a tool that allows them to learn about and explore their world. As children meet developmental milestones, their style of play changes to reflect their growing abilities. Young infants engage in independent play as they explore objects and toys alone. Parallel play starts in the toddler years and is characterized by side-by-side play with similar objects and toys, but seldom involves interaction among children. Associative play is most common in the toddler stage, where children engage in a similar activity but have very little organization or rules.[45] All of these different types of interactions in play support children in the development of social skills such as respecting boundaries, turn-taking, sharing, and waiting. All of these skills are important in establishing healthy relationships with peers as children begin to engage in cooperative play with others in the pre-school years.

# Empathy

Young children develop empathy over time. Young infants do not have the ability to understand and share in the feelings of others,

yet there are certain behaviors and experiences that support the development of empathy. Through special and meaningful relationships with primary caregivers, children observe and learn about social behaviors that support an awareness of feelings in others and, eventually, an understanding of them.[46]

Familiar adults in children's lives are the first models for empathetic behavior. Children observe and learn through the actions and responses of their caregivers. Children use social cues to guide their behaviors and make sense of what is occurring around them.[47] Children begin to apply these learned behaviors through their social interactions. Therefore, it is important for adults to create a warm, caring,

and loving environment for very young children and communicate about feelings that both children and others may experience.

Very early on, children first demonstrate an awareness of others by simply observing and reacting to their environment. This may include looking at a crying child or smiling at a familiar adult. Children then use intentional behaviors to draw out certain responses and emotions from others and begin to identify certain emotions in themselves and others. Closer to age three, children demonstrate a simple understanding of feelings in others. This awareness and understanding of feelings of others is crucial for children in establishing successful relationships with peers.

**Standard:** Children demonstrate an emerging ability to understand someone else's feelings and to share in the emotional experiences of others.

**Discover how Empathy is related to:**

**self-regulation**

**Emotional Regulation, p. 17**
**Behavior Regulation, p. 25**

**domain 3: Language**

**Social Communication, p. 75**
**Receptive Communication, p. 79**

**domain 4: Cognitive**

**Symbolic Thought, p. 105**
**Logic & Reasoning, p. 113**

**Standard:** Children demonstrate an emerging ability to understand someone else's feelings and to share in the emotional experiences of others.

| During this age period: | **Birth to 9 months:** Children begin to build awareness of others' feelings by observing and reacting to sounds that others make. Toward the end of this age period, infants understand that they are individuals and separate from their caregiver(s), a crucial milestone in interpreting the feelings of others. | **7 months to 18 months:** Children have more experience with a wide range of emotions, as they begin to recognize and respond to different facial and emotional expressions. Children also begin to demonstrate the understanding of how behavior brings out reactions and emotions from others. |
|---|---|---|

### Indicators for children include:

- Watches and observes adults and other children
- Cries when hearing another infant cry
- Responds to interactions from caregiver(s), e.g., smiles when caregiver smiles, looks toward a caregiver when he or she shakes a rattle
- Shows signs of separation anxiety, e.g., protests when a caregiver leaves the room
- Begins to share in simple emotions by reading facial and gestural cues, e.g., repeats activities that make others laugh

### Indicators for children include:

- Smiles with intention to draw out a smile from a familiar other
- Uses social referencing with caregiver(s) when in uncertain situations, e.g., glances at a caregiver's face for cues on how to respond to an unfamiliar person or new situation
- Reacts to a child who is upset by observing or moving physically closer to the child
- Shares in both positive and negative emotions with caregiver(s), e.g., shares in wonders, amazement, delight, and disappointment
- Begins to have a greater awareness of own emotions, e.g., says or gestures "no" to refuse, squeals and continues to laugh when happy

### Strategies for interaction:

- Provide emotional caring and consistency; respond quickly and thoughtfully to the child's sounds and cries
- Describe what the child may be feeling with words; label the child's sounds and coos
- Provide opportunities for the child to see different facial expressions: baby board books with pictures of other infants, or the use of a mirror during play
- Use more than one manner to express and share in feelings with the child, e.g., body movement, words, facial expressions, and voice inflection

### Strategies for interaction:

- Respond to the child's attempts to seek emotional responses; try to use facial expressions to match the child's tone of voice, sounds, and body language
- Model empathetic behavior and control own emotions, e.g., avoid over-control and power struggles; instead, use redirection
- Name emotions and recognize behaviors that the child is exhibiting, e.g., saying, "I can see you are mad by the way you are stomping your feet!"
- Respond thoughtfully and genuinely to the child's attempts to socially engage and interact

**Standard:** Children demonstrate an emerging ability to understand someone else's feelings and to share in the emotional experiences of others.

| **16 months to 24 months:** Children begin to notice different emotions that other children are expressing and may begin to respond to these emotions. | **21 months to 36 months:** Children begin to exhibit an understanding that other people have feelings different from their own. | **During this age period:** |
| --- | --- | --- |

### Indicators for children include:

- Imitates comforting behaviors from caregiver(s), e.g., pats or hugs a child when upset
- Recognizes some of his or her own emotions, e.g., grabs a comfort object when sad
- Demonstrates awareness of different emotions and feelings during play, e.g., rocks a baby doll and whispers "shhh"
- Shares in and communicates simple emotions of others, e.g., "mama sad", "papa happy"

### Indicators for children include:

- Communicates how other children may be feeling and why, e.g., states that a peer is sad because his or her toy was taken away
- Responds to a child in distress in an attempted manner to make that child feel better, e.g., gives a crying child a hug, uses soothing words, or uses distraction
- Shares in and shows an emotional response for peers' feelings, e.g., may show concern for a child who is hurt, or smile for a child who is happy and jumping up and down

### Strategies for interaction:

- Provide words for feelings as often as possible throughout the day
- Recognize and respect individual and cultural emotional responses, e.g., a child who does not want to be hugged when upset
- Help the child recognize certain emotions by describing and naming what the child is feeling
- Help the child to develop an understanding of feelings of others by using pictures, posters, books, and mirrors
- Allow plenty of time for pretend play and interact with the child while modeling empathy

### Strategies for interaction:

- Model thoughtful and sensitive practices when listening and responding to the child's description of his or her feelings
- Continue to name and discuss feelings, e.g., state why the child may be feeling certain emotions
- Genuinely praise the child when he or she responds in a sensitive manner to another child
- Gently guide the children's play to encourage empathy, e.g., "Michael is hungry, too. He needs some pretend snack on his plate."

## Commonalities and Differences in Emotional Expression

In order for children to build their ability to empathize, they need to be able to recognize their own feelings and the emotional expressions of others. The expression of emotions is closely linked to the cultural and societal influences of children's family and environment. Emotions are reinforced by caregivers depending on which emotions they feel will best prepare children for success in their particular culture and society.[48] For example, the Western culture often encourages pride in young children, while Asian families focus on encouraging modesty.[49] Yet, across cultures, there is agreement that there is a set of emotions that are experienced by all, regardless of culture or experience. These six emotions are **happiness, sadness, fear, surprise, anger,** and **disgust**. They are considered to be basic, universal emotions due to the idea that they are instinctive.[50]

*Keep In Mind*

Child development does not occur in isolation; children reach their developmental milestones within their social and cultural contexts. However, while "how the child develops" may look different, "what the child develops" can be observed in a more universal fashion. Below are some indicators that may warrant a discussion with child's healthcare provider for closer examination.

☐ Does not smile by four months of age

☐ Does not exhibit any hesitation or anxiety around strangers after nine months of age

☐ Does not babble, point, or make meaningful gestures by 12 months of age

☐ Does not respond to his or her name

# Physical Development & Health

Physical development is supported by the remarkable brain growth that children undergo in the first three years. Children will grow more during this time than at any other point in their lives. They often triple their birth weight by one year of age, and will have quadrupled it by age two.[51] The size of their brain grows to about 80 percent of adult size by three years of age.[52] One of the most important milestones children reach in their first year is learning about and experiencing gravity.[53] They learn to control their movements and use their bodies in different ways. Movement, physical actions, and use of their senses are the primary ways that children explore their surroundings during these first three years. Therefore, children need to feel safe and nurtured. This is achieved through loving and attentive relationships. These positive relationships encourage healthy development, build confidence in children to try new skills, and provide them with a sense of security.

Physical development includes mastering movement, balance, and fine-motor skills. Children are born with an intense need to explore and learn about their world. The ability to move expands their ability to explore, discover, and problem-solve. Part of physical development also includes the development of perceptual abilities, which consists of taking in sensory experiences through hearing, seeing, smelling, and touching, and responding to these experiences.[54] One example of this process is how children take in sensory information and respond with movement and actions. For example, an 11-month-old claps his hands after hearing music, or a 24-month-old uses his hands and fingers to squeeze clay in order to change its shape. Children's perceptual development is important because it helps them learn and

make sense of their world. Perceptual development is closely related to physical development as it helps children learn where their body is in space and allows them to respond and move accordingly.

Along with these new physical and sensory skills, children also develop their self-care skills. In infancy, children tend to their self-care needs by communicating them to attentive caregivers. As they grow, children begin to attempt some of these tasks on their own because of increasing control of their muscles, along with new cognitive abilities. The development of self-help skills depends greatly on cultural expectations and experiences. For example, in cultures where children are carried in slings or wraps for longer periods of time, walking and self-help skills tend to emerge later in the developmental trajectory.

Realistic expectations in the first three years of life are extremely important, as children all develop their physical abilities and skills at their own pace. Some children will begin to crawl as early as seven months, while others wait until nine months to begin using this particular skill. In addition, culture and experiences also play an important part in children's physical and health development. Children will usually focus on skills that are necessary and familiar to them based on their everyday experiences.

### In this section:

*Realistic expectations in the first three years of life are extremely important, as children all develop their physical abilities and skills at their own pace.*

# Gross Motor

Gross motor development includes the control and movement of large muscle groups such as the torso, head, legs, and arms. Children begin working on their gross motor skills as soon as they are born.

These skills develop from top to bottom. Children who do not have any developmental or health challenges first gain control of their head. Next, children gain control of their torso and begin to learn balance, evidenced by their ability to roll over and sit up. Eventually, a child can use the lower half of his or her body when beginning to crawl, cruise, and walk.

Children need time and space to work on these very important skills. Even when they are newborns, children can be placed on their tummies to gain strength in their necks, which is essential for head control. Tummy time also helps develop children's torsos and eventually will contribute to their ability to roll over and push up. Once children can sit up, they have a whole new way of observing and exploring their world. This new position supports children in scooting, crawling, climbing, and, eventually, walking.

Physical development is one area that is greatly impacted by physical disabilities or health issues. Children with disabilities may not master all gross motor skills. Instead, individual growth will vary and depend on children's own unique abilities. For example, a developmental milestone for a child with a physical disability may be learning to walk with a walker by the age of three.

**Standard:** Children demonstrate strength, coordination, and controlled use of large muscles.

**Discover how Gross Motor is related to:**

**self-regulation**
**Physiological Regulation, p. 13**

**domain 1: Social & Emotional**
**Attachment Relationships, p. 31**

**domain 4: Cognitive**
**Spatial Relationships, p. 101**

**approaches to learning**
**Persistence, Effort, & Attentiveness, p. 143**

**Standard:** Children demonstrate strength, coordination, and controlled use of large muscles .

**During this age period:**

**Birth to 9 months:** Children are beginning to develop and coordinate the large muscles needed to purposefully move their bodies.

**7 months to 18 months:** Children develop mobility, as they purposefully move from one place to another with limited control and coordination.

**Large muscles** refer to the muscles found in the arms and legs. Large muscle movements include crawling, kicking, walking, running, and throwing.

**Tummy time** is the time babies spend lying and playing on their stomachs while awake. This time is important for the development of head control and neck strength.

### Indicators for children include:

- Lifts head while on tummy
- Brings feet to mouth while lying on back
- Rolls from back to stomach and from stomach to back
- Brings both hands to midline, i.e., center of the body
- Begins to gain balance, e.g., sits with and without support
- Scoots body to attempt to move from one point to another

### Indicators for children include:

- Moves from hands and knees to a sitting position
- Rocks back and forth on knees
- Crawls from one point to another
- Pulls to a stand using help from furniture or caregiver
- Moves objects with large muscles, e.g., pushes a toy car with legs, rolls a ball
- Cruises while holding on to furniture, e.g., walks around crib, holding on to railing
- Briefly maintains balance when placed in a non-supported standing position
- Takes steps independently
- Gets into a standing position without support

### Strategies for interaction:

- Provide plenty of tummy time when the child is awake and alert
- Provide a dedicated area on the floor where the child can safely explore, roll, and work on additional skills
- Support the child when mastering a new skill, e.g., keeping arms out to the side for a child who is working on keeping balance while sitting
- Place objects so that they are visible but out of reach for the child, to encourage movement; watch the child's cues carefully to prevent frustration

### Strategies for interaction:

- Create a safe environment for the child to move around in
- Encourage the child to move by placing novel objects out of reach
- Introduce objects that the child can crawl or walk through
- Encourage new skills by demonstrating enthusiasm and pride as the child begins to attempt the skill
- Play interactive games with the child, e.g., roll a ball back and forth
- Support the child as he or she masters new skills, e.g., provide physical support by lightly holding child who is attempting to take his or her first steps

**Standard:** Children demonstrate strength, coordination, and controlled use of large muscles.

**16 months to 24 months:** Children now have gained more control over their movements and begin to explore different ways they can move their bodies.

**21 months to 36 months:** Children begin to master more complex movements as coordination of different types of muscles continues to develop.

**During this age period:**

### Indicators for children include:

- Attempts to climb objects, e.g., furniture, steps, simple climbing structures
- Holds objects or toys while walking, e.g., pulls a car by a string while walking around the room
- Kicks and attempts to catch a ball
- Rides a toy by using his or her hands or feet

### Indicators for children include:

- Stands on one foot with support and maintains balance for a brief period of time
- Jumps forward a few inches; jumps from slightly elevated surface onto the ground
- Walks up and down the stairs by placing both feet on each step
- Throws a ball
- Walks on tiptoes, walks backward, and runs
- Pedals a tricycle with both feet

### Strategies for interaction:

- Provide opportunities for the child to run, climb, and jump outside
- Create safe places for the child to climb; remain with the child in order to prevent falling and injury
- Use movement games to promote balance, jumping, and hopping, e.g., "follow the leader"
- Engage in games with the child that encourage the use of large muscles, e.g., roll a ball with the child, create simple obstacle courses to maneuver

### Strategies for interaction:

- Incorporate outdoor games where the child has to jump and run
- Provide safe climbing structures and other materials such as tricycles and low balance beams
- Use dance and movement activities to encourage the child to move his/her body in different ways
- Engage in activities that promote throwing a ball

**This story also relates to:**

# Real World Story

Jacob is 18 months old and was born with Agenesis of the Corpus Callosum (ACC). ACC refers to the absence of the corpus callosum, the band that connects the two sides of the brain. Because of this impairment, the right and left sides of Jacob's brain do not communicate properly. Jacob has vision impairment, low muscle tone, and poor motor coordination. He is enrolled in Early Intervention, and a physical therapist, speech pathologist, child-development specialist, and occupational therapist all work with him in developing his skills. Jacob recently met his goal of crawling. While crawling is often accomplished by age seven to 10 months, Jacob is developing this skill later than what is typical because of his disability. For the next six months, Jacob's physical therapist will work with him on reaching the following milestones: climbing, taking steps with a walker, and standing unassisted for three seconds. A major goal for Jacob is to take two to three steps unassisted by age two.

Jacob's disability has also impacted his fine motor development. Currently, skills he is working on include feeding himself finger foods and stacking one block on top of another. He is also focusing on engaging with different types of sensory materials such as play dough, water, and sand. These activities help with his **sensory input** and help him build tolerance for different types of textures. Again, these are all developmental skills that are often mastered and experienced earlier, but Jacob is developing at his own unique pace.

THIS EXAMPLE HIGHLIGHTS how a disability can impact all areas of development and how it changes the developmental trajectory for children. Jacob may not ever be able to do all the things that typically developing children can, but he is nevertheless working to reach his milestones at his own pace and in his own way. Jacob may not walk unassisted for years, but he is achieving milestones that will support him to eventually reach that skill when he is ready.

Since Jacob has global delays, he is receiving therapy for all areas of development. This approach is important because all areas of development impact each other. Early intervention in the first three years is so important for children with developmental delays; it is a critical period for learning and can provide children and families with a much-needed support system.

# Fine Motor

Fine motor refers to the movement and coordination of small muscles, such as those in the hands, wrists, fingers, toes, and feet.[55] Young children begin to develop their fine motor skills during the first year.

They bring their fingers and toes to their mouths, grasp objects, and, eventually, learn to twist and turn objects. Around 10 to 12 months of age, children transition from using a raking motion with their fingers to using their thumb and forefinger grasp when picking up small objects. Their hand-eye coordination improves and children start to manipulate small objects, exploring all the ways objects can be combined or changed.[56]

Children's everyday activities help support the development of their fine motor skills. These skills include feeding, reading books, and playing with a variety of different objects. With improving skills, children change the way they explore their surroundings. They begin to push a toy car, instead of just holding and moving it around their hands. They may also pick up objects and place them inside containers. They begin to stack blocks, instead of just knocking them down. Children are not only improving their fine motor skills, but are also improving their physical coordination. They begin to turn pages of a book and scribble. Close to 36 months of age, children may be able to hold a writing utensil in writing position, and can screw and unscrew objects, such as lids.[57]

**Standard:** Children demonstrate the ability to coordinate their small muscles in order to move and control objects.

**Discover how Fine Motor is related to:**

**Standard:** Children demonstrate the ability to coordinate their small muscles in order to move and control objects.

| During this age period: | **Birth to 9 months:** Children begin to reach for, grasp, and move objects. | **7 months to 18 months:** Children begin to gain control of their small muscles and purposefully manipulate objects. |
|---|---|---|

**Small muscles** refer to the muscles found in the hands, fingers, feet, and toes. The coordination of these small muscles is known as fine motor development.

| Indicators for children include: | Indicators for children include: |
|---|---|
| ▪ Opens hands when in a relaxed state | ▪ Picks up objects |
| ▪ Reaches for objects | ▪ Uses pincer grasp, e.g., picks up a Cheerio with thumb and forefinger |
| ▪ Grasps, holds, and shakes objects | ▪ Begins to use simple baby signs (if exposed to baby sign language), e.g., moves hands toward each other to signal more |
| ▪ Transfers an object from one hand to the other | ▪ Uses hands in a purposeful manner, e.g., turns the pages of a board book, drops objects into a bucket |
| ▪ Uses raking motion with hands to bring objects closer, e.g., uses all fingers to bring small objects closer to body | ▪ Coordinates increasingly complex hand movements to manipulate objects, e.g., crumples paper, connects and disconnects toy links, flips light switch on and off |
| ▪ Holds a small object in each hand; bangs them together | ▪ Participates in finger plays, e.g., moves hands to imitate caregiver's hands when singing "Twinkle, Twinkle, Little Star" |

| Strategies for interaction: | Strategies for interaction: |
|---|---|
| ▪ Strategically place objects around the child where he or she will have to reach for them | ▪ Provide art materials, e.g., crayons and paper, for the child to scribble on |
| ▪ Provide opportunities for the child to grasp toys and other small objects | ▪ Allow the child to explore books on his or her own |
| ▪ Model different ways of how to use objects, e.g., bang two objects together, shake a sensory ball, stack blocks | ▪ Provide the child with finger foods they can grasp and bring to mouth, e.g., dry cereal |
| | ▪ Encourage the child to participate in finger plays, e.g., "Itsy, Bitsy Spider" |
| | ▪ Provide different materials for child to explore, e.g., books and toys with different textures, cloth toys, water play |

**Standard:** Children demonstrate the ability to coordinate their small muscles in order to move and control objects.

**16 months to 24 months:** Children begin to coordinate their movements when using their small muscles and begin to manipulate various types of objects.

**21 months to 36 months:** Children effectively coordinate their small muscles to manipulate a wide array of objects, toys, and materials in different ways.

**During this age period:**

## Indicators for children include:

- Attempts to fold various types of materials, e.g., paper, baby blanket
- Uses baby sign to communicate various concepts, e.g., "all done," "more," "water"
- Uses simple tools, e.g., scooper to scoop sand or water, crayon for scribbling
- Begins to imitate lines and circles when drawing
- Controls placement of objects in a more effective manner, e.g., stacks blocks in a more orderly fashion

## Indicators for children include:

- Begins to use more complicated hand movements, e.g., uses eating utensils independently, stacks blocks
- Attempts to help with dressing self, e.g., snaps buttons, pulls zipper, puts socks and shoes on
- Scribbles with intent and begins to draw circles and lines on own
- Uses hand-eye coordination in a more controlled manner, e.g., completes puzzles, strings beads together

## Strategies for interaction:

- Provide the child opportunities to scribble with crayons, or use chalk on sidewalk
- Encourage the child to experiment with tearing paper, popping bubbles (bubble wrap), and completing puzzles
- Use sensory experiences for children to engage in, e.g., water table with objects to pour, move, and squeeze water; play dough

## Strategies for interaction:

- Model how to use writing and feeding utensils through everyday activities
- Provide experiences and objects that promote fine motor development, e.g., stringing manipulatives, play dough, using plastic tweezers to pick up objects, and peg boards
- Allow the child to help in dressing him- or herself; be patient and provide guidance as needed to limit frustration
- Introduce more complex puzzles for the child to attempt, e.g., puzzles with more pieces

## Evolving Hand Movements

In the first year of life, children work on holding objects in a controlled manner. In the first two months of age, children's hand movements are reflexive. At three months of age, these reflexes begin to fade as children bat at objects and soon will be able to pick up large objects. Between four and eight months, children are perfecting their grasp. They are able to intentionally pick up objects and bring them to their mouths in order to explore. Children start to manipulate objects while holding them in one hand. Around nine months of age children start to pick up small objects with their thumb and forefinger. This movement is known as the pincer grasp. As they perfect this skill, they will soon be able to pick up very small objects. The pincer grasp is important for self-feeding and also is the precursor skill to holding feeding and writing utensils.

# Perceptual

Perceptual development refers to how children start taking in, interpreting, and understanding sensory input.[58] Perception allows children to adapt and interact with their environment through the use of their senses. Children are born with the ability to see, hear, smell, taste, and touch. While these senses are not fully developed by birth, they quickly improve in the first few months of life. For example, a newborn's vision is limited to eight to 12 inches.[59] In a few short months, their vision has greatly improved as children can see objects from the other side of the room, and make out patterns and colors.[60] Children can hear sounds even before birth, and as infants they begin to distinguish among these sounds. The ability to do this directly influences children's language development.

Perceptual development is closely linked to physical development because children's growing motor abilities allow them to explore their environments in new ways. Children can use their mobility to reach for objects, or play with objects in different ways. As they get older, they will be able to use sensory input to change an action or behavior. For example, children may be able to perceive how to move their body around obstacles, or know how to hold in their hands objects that they perceive to be fragile. Children learn about their world by engaging their senses with their surroundings. This is why appropriately stimulating environments and meaningful engagement and interactions are encouraged for young children.

**Standard:** Children demonstrate the ability to distinguish, process, and respond to sensory stimuli in their environment.

**Discover how Perceptual is related to:**

**self-regulation**
**Physiological Regulation, p. 13**

**domain 4: Cognitive**
**Spatial Relationships, p. 101**
**Science Concepts & Exploration, p. 121**

**approaches to learning**
**Creativity, Inventiveness, & Imagination, p. 147**

**Standard:** Children demonstrate the ability to distinguish, process, and respond to sensory stimuli in their environment.

| **During this age period:** | **Birth to 9 months:** Children begin to use their senses to explore and become aware of their environment. | **7 months to 18 months:** Children begin to use sensory information received from their environment to alter the way they interact and explore. |
|---|---|---|

**Sensory stimuli** are sounds, textures, tastes, sights, and temperatures found in children's environments.

**Perceptual development** refers to taking in and interpreting sensory stimuli. It is through these stimuli that children learn about and interact with their environment.

| **Indicators for children include:** | **Indicators for children include:** |
|---|---|
| ▪ Responds to changes in the environment, e.g., startles when hearing a loud noise, turns head toward light<br>▪ Explores objects through senses, e.g., mouths, touches objects<br>▪ Attempts to mimic sounds heard in the environment<br>▪ Has a range of vision that extends to several feet, which in turn leads to seeing colors and seeing objects from a distance<br>▪ Feels the sensation of being touched and looks around to identify the source of the touch, e.g., person or object<br>▪ Recognizes familiar objects and begins to demonstrate favoritism for certain toys | ▪ Begins to manipulate materials, e.g., pounds at play dough, squeezes finger foods<br>▪ Begins to show a preference for or aversion to particular sensory activities, e.g., pulls hand away from unfamiliar objects or unpleasant textures<br>▪ Becomes aware of obstacles in the environment, e.g., crawls around the table to get the ball<br>▪ Adjusts manner of walking depending on the surface, e.g., walks carefully across gravel |
| **Strategies for interaction:** | **Strategies for interaction:** |
| ▪ Provide an environment where the child can observe and explore<br>▪ Place mirrors and attractive toys in the child's line of sight, e.g., a mobile over the crib<br>▪ Interact with the child by singing songs and manipulating toys together<br>▪ Provide objects and experiences that encompass different colors, sounds, textures, e.g., music box, a toy that lights up, a book with different textures | ▪ Provide the child with choices for experimenting with sensory objects<br>▪ Observe the child's reactions to objects and experiences in order to note what he or she enjoys<br>▪ Expose the child to different textures, smells, sounds, and sights |

**Standard:** Children demonstrate the ability to distinguish, process, and respond to sensory stimuli in their environment.

| **16 months to 24 months:** Children continue to work on using perceived sensory information to decide how to interact with their environment. | **21 months to 36 months:** Children begin to process sensory information in a more efficient manner and use the information to modify behavior while interacting with the environment. | **During this age period:** |
|---|---|---|

| **Indicators for children include:** | **Indicators for children include:** |
|---|---|
| ▪ Plays with water and sand tables; explores by pouring, digging, and filling <br>▪ Enjoys physical play, e.g., wrestling, tickling <br>▪ Recognizes situations that need to be approached cautiously, e.g., walks slowly with a cup of water, or with food on a plate <br>▪ Adjusts approach to environment, e.g., changes volume of voice to adjust to noise level in the environment | ▪ Imitates familiar adults when coloring; draws lines and/or circles <br>▪ Adjusts approach to unknown objects, e.g., presses harder on a lump of clay <br>▪ Perceives and acts accordingly when holding a fragile object, both in the actual environment and in play, e.g., walks carefully when holding a pretend tea cup |

| **Strategies for interaction:** | **Strategies for interaction:** |
|---|---|
| ▪ Provide opportunities for the child to experience sensory play, e.g., play dough, water, sand <br>▪ Follow the child's lead during play; ensure to proceed cautiously with a child who needs time before getting involved <br>▪ Engage in activities that encourage using different sounds and movements, e.g., read a book that incorporates both whispering and loud voices | ▪ Spend time with the child; draw, paint, and color together <br>▪ Prompt the child to discuss what he or she is feeling during sensory play, e.g., "How does that finger paint feel on your hands?" <br>▪ Allow the child to explore freely and have fun while learning, e.g., child uses finger paint to paint their face and squeals with delight |

## Developing Preferences

Each child is unique when it comes to sensory likes and dislikes. Some children enjoy splashing in the bath or getting their hands dirty while exploring different textures. Other children may shy away from touching different materials, instead preferring to simply observe. Just as adults have preferences, young children are developing preferences for what they see, hear, feel, smell, and taste. Caregivers should pay attention to what children enjoy and what they steer clear of. Caregivers need to be sensitive to these differences and set up various types of activities to accommodate children's sensory preferences. For example, children who do not enjoy getting their hands dirty should not be forced to play with sand, water, or other types of sensory materials that may make them uncomfortable. Children who are overwhelmed by too many sounds and sights should be watched closely for signs of overstimulation while playing. Positive early experiences tailored to children's comfort levels and needs are important for healthy development.

# Self-Care

Children are completely dependent on their caregivers during their first year of life. However, with newfound mobility, they become more independent in reaching objects and in moving from one place to another. Children's ability to indicate needs with gestures develops around nine to 12 months of age, as children point to what they may want. Children's first words also support their ability to communicate needs and wants to caregivers. However, during the first three years of life, children heavily depend on their caregivers to meet their emotional and physical needs. Through the child-caregiver relationship, children learn how to recognize their own signals and how to meet those needs, and they may begin to attempt some of these self-help tasks on their own. Some examples of children's self-help skills in the first three years include:

- Hold bottle or cup when drinking

- Hold a spoon and try to feed themselves

- Hold toothbrush and attempt to brush teeth

- Snap buttons or try to pull zippers found on clothing

While they are growing and developing new skills, children demand more independence than they may actually be capable of. Therefore, caregivers play an important role in balancing this desire for independence and actual ability. The development of self-care also depends heavily on cultural expectations and experiences. Some cultures value independence, while others value interdependence.[61] One is not better than the other and children's development of self-care abilities will reflect these differences in culture. One example of a self-care task that is heavily culturally influenced is toilet training. Not all children reach this milestone by the same age or in the same way because cultures and families have differing views and values related to toilet training.

**Standard:** Children demonstrate the desire and ability to participate in and practice self-care routines.

**Discover how Self-Care is related to:**

**self-regulation**
**Physiological Regulation, p. 13**
**Behavior Regulation, p. 25**

**domain 1: Social & Emotional**
**Attachment Relationships, p. 31**
**Relationship with Adults, p. 39**

**domain 4: Cognitive**
**Logic & Reasoning, p. 113**
**Safety & Well-Being, p. 125**

**Standard:** Children demonstrate the desire and ability to participate in and practice self-care routines.

| **During this age period:** | **Birth to 9 months:** Children have a growing awareness and interest in their own needs. | **7 months to 18 months:** Children signal caregivers about their needs through nonverbal and verbal communication and increase their ability to complete some self-care tasks on their own. |
| --- | --- | --- |

### Indicators for children include:

- Signals to indicate needs, e.g., cries when hungry, arches back when in pain or uncomfortable, turns head to disengage from object or person
- Starts to develop self-soothing skills, e.g., sucks fingers for comfort and regulation
- Attempts to feed self with a bottle

### Indicators for children include:

- Grasps and drinks from a cup
- Shakes head to demonstrate no; pushes objects away
- Feeds self with foods that he or she can pick up
- Improves ability to calm self, may fall asleep on own

### Strategies for interaction:

- Provide sensitive and responsive care giving
- Watch for the child's cues and respond accordingly
- Nurture and cuddle the child

### Strategies for interaction:

- Establish routines throughout the day and create a nighttime routine
- Provide consistent and predicable care for the child
- Provide opportunities for the child to feed self, e.g., use finger foods, allow the child to hold a spoon

**Standard:** Children demonstrate the desire and ability to participate in and practice self-care routines.

**16 months to 24 months:** Children become active participants in addressing their own self-care needs with the support of the caregiver.

**21 months to 36 months:** Children attempt to attend to their self-care needs independently with less support from their caregivers.

## Indicators for children include:

- Feeds self with assistance
- Starts to indicate needs with gestures or a word, e.g., tugs diaper when wet, says "milk" when thirsty
- Assists in undressing and dressing
- Attempts to brush teeth with support

## Indicators for children include:

- Undresses independently but still needs assistance with dressing
- Performs some self-care tasks regularly and mostly independently, e.g., brushes teeth, washes hands, places cup in sink
- Makes choices pertaining to dressing and eating
- Uses nonverbal and/or verbal communication to specify needs
- Begins to demonstrate an interest in using the bathroom, e.g., wants to sit on "potty"
- Attempts to put on shoes and socks without help

## Strategies for interaction:

- Provide support and independence as the child learns new skills
- Provide the child with opportunities to work through mastering self-help skills
- Allow the child time to begin to master some self-help skills, e.g., do not rush the child who is trying to put on a t-shirt

## Strategies for interaction:

- Provide the child with choices, e.g., "Would you like to wear the blue shirt or red shirt?"
- Remain patient and supportive as the child attempts to master self-help skills; provide the child with encouragement and support as needed
- Respond promptly to the child's signals when he/she needs assistance
- Recognize that cultural expectations and practices impact the child's understanding and self-initiation of self-care routines

# Real World Story

Michelle is a home visitor who sees Eric, a 26-month-old, and his family on a weekly basis. Michelle has been visiting the family for over a month and is still building a relationship with Eric's mother, Diana. During her home visits, Michelle provides parent education along with developmentally appropriate activities for Eric. For this particular visit, Michelle has brought pretend play objects for Eric and Diana to engage with. There are play silverware, plates, vegetables, and cups. Michelle sits on the floor, and Diana does the same. Eric begins to rummage around in Michelle's bag, and begins to take out all of the kitchen toys. Michelle picks up a play plate and spoon and pretends to eat. She says, "This is so yummy!" She then attempts to hand Eric the plate and spoon. Eric grabs them and then hands them over to Diana. He gestures to his mouth and then sits in front of her. Diana then begins to pretend feed him. Eric opens his mouth and says, "Mmmm." Michelle observes, and then says, "Eric, can you try by yourself?" Eric shakes his head and gestures toward his mother to feed him again. Diana follows his lead and again pretends to

feed him food off the play plate. Diana looks at Michelle and says, "I like to feed him his food, and he prefers it that way. He does not know how to really use a spoon." Michelle nods and says, "I understand." Eric takes this opportunity to disengage with his mother and begins to rummage in Michelle's bag once again.

THIS EXAMPLE HIGHLIGHTS how culture and experiences play important roles in development. Eric has his own expectations for how he eats based on the routine he has established with his mother. Eric is still fed by his mother, and he makes that obvious during his interaction with the play meal. Even after Michelle encourages him to try on his own, Eric still gestures toward his mother to continue the interaction. Michelle is sensitive to what she is observing and simply nods to Diana's explanation. Michelle demonstrates respect toward Diana and Eric's routine as she does not ask why, nor does she push Eric to try on his own. While some children at this age may attempt to use a spoon to feed themselves, Michelle is aware that this self-help skill is not a particular goal for this family at the moment.

### This story also relates to:

**self-regulation**

**Physiological Regulation, p. 13**
**Attention Regulation, p. 21**

**domain 1: Social & Emotional**

**Relationship with Adults, p. 39**

**domain 4: Cognitive**

**Memory, p. 97**
**Symbolic Thought, p. 105**

## *Keep In Mind*

Child development does not occur in isolation; children reach their developmental milestones within their social and cultural contexts. However, while "how the child develops" may look different, "what the child develops" can be observed in a more universal fashion. Below are some indicators that may warrant a discussion with the child's healthcare provider for closer examination.

☐ Does not roll over by six months

☐ Does not walk by 18 months

☐ Appears to have low muscle tone (loose, floppy muscles)

☐ Does not pick up small objects using thumb and finger/fingers by 12 months

# Language Development, Communication, & Literacy

Learning language and communication is a universal experience for children across cultures. Children develop communication and language skills in the context of their own culture and through meaningful relationships. Children spend the first year of life building the foundation for language, as they absorb what they see and hear through interactions with their caregivers and their environment. During this time the brain is preprogrammed to learn language. The process of learning language involves nonverbal communication, processing and understanding sounds, and producing sounds.[62] Even with the complexities of language, children's abilities to communicate and acquire language are remarkable. Children learn language through their interpersonal, social interactions with their caregivers. Throughout the Guidelines, language development, communication, and literacy are referencing children's development in their home, or primary, language, regardless of whether or not this language is that of the majority.

Language is part of communication. At first, children do not have language but they have the ability to communicate. Children use nonverbal and verbal communication to express their needs. They cry, grunt, and use body language. As they get a bit older, children use strategies such as sign language and gestures to communicate their needs before they are able to verbally express them. These communication strategies also support children who have language delays or hearing impairments. Children depend on attentive caregivers to understand and respond to these communication attempts in order to have their needs met.

Caregivers who respond thoughtfully and promptly provide a positive model for shared

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**Children's capacity to learn language in the first three years is remarkable.** They have the ability to learn more than one language at a time, and it is easier for children to learn an additional language than it is for adults. Research highlights that there is a critical period for acquiring more than one language; that critical period is the first five years of life.[63] Children who learn different languages in the first five years are often viewed as native speakers because they acquire the languages by the same process as their first language, and are more likely to be fluent and accent-free.[64]

communication that all children can build upon. These early reciprocal interactions provide the model for back-and-forth patterns that are important for social communication. In infancy, children may respond to a caregiver's voice by making eye contact, smiling, or cooing. Verbal children will engage in this same pattern, except they now use some words to communicate. These experiences provide the foundation for understanding the rules of turn-taking in conversations that children will use when communicating with others.

Children build their vocabulary and understanding through interactive experiences. They are not able to verbally express everything they are thinking, but they can understand more than they can say. They demonstrate their understanding by pointing, gesturing, or following simple directions. Older children under-

stand more complex requests, such as two-step directions, with less prompting. Their ability to verbally communicate also improves. In the first year, children are practicing their expressive language through babbling, which takes on the sound of their home language. Around 12 months of age, first words emerge. Children's first words are embedded in their cultural context and are usually names of meaningful objects and people. Eventually these single-word utterances transition to two-word combinations, and at 36 months, children are able to form short, simple sentences.

An important part of language and communication development is early literacy. Early literacy is the foundation for reading and writing. Children learn about early literacy through everyday experiences with literacy tools such as books, paper, and crayons. Reading, singing, and drawing are all meaningful activities that caregivers can engage in with young children to help support early literacy development. While children are not expected to read or write by 36 months, these positive, interactive experiences will serve as building blocks to develop literacy skills in the future.

# Social Communication

Children are born with the ability and need to be social. Social communication begins at birth through interactions between caregivers and children. Social interaction occurs with children expressing their

needs through sounds, cries, and body language. Caregivers, in turn, respond to these signals. These simple interactions provide the first model for back-and-forth communication used in conversations. At two months of age, there is an important shift with the emergence of the social smile. The social smile marks the beginning of a very intense social period for children. This period is often referred as the "social baby."[65] While children are communicating their needs prior to the social smile, it is the first behavior up to this point that is socially intentional.

In infancy, children use their social smile, eye contact, sounds, and facial expressions to initiate communication with caregivers. They participate in back-and-forth communication by babbling in response to something a caregiver has said, or engage in interactions that follow-turn taking, such as "peek-a-boo." These interactions become more complex as children acquire language and an increased understanding of words. Children use words or signs to express ideas in order to engage in short back-and-forth communication with caregivers. Eventually, children will be able to answer adult-directed questions. By 36 months of age, children ask their own questions, use repetition to maintain and extend conversations, and initiate their own conversations.

**Standard:** Children demonstrate the ability to engage with and maintain communication with others.

**Discover how Social Communication is related to:**

**Standard:** Children demonstrate the ability to engage with and maintain communication with others.

| **During this age period:** | **Birth to 9 months:** Children demonstrate effort in engaging others in both verbal and nonverbal communication and interactions. | **7 months to 18 months:** Children are participating in interactions with familiar others. Children also begin to demonstrate simple turn-taking skills while interacting. |
|---|---|---|

**Indicators for children include:**

- Uses sounds, cries, facial expressions, and body language to convey needs
- Attempts to engage in early forms of turn-taking with caregiver, e.g., coos and stares at caregiver
- Smiles and uses other facial expressions to initiate interactions with caregiver
- Participates in back-and-forth communication, e.g., babbles back and forth and/or plays peek-a-boo with caregiver

**Indicators for children include:**

- Communicates and responds by grunting, nodding, and pointing
- Demonstrates understanding of a familiar sound or word, e.g., looks toward a caregiver after hearing name
- Responds with "yes" or "no," using sounds, words, and/or gestures to answer simple questions
- Uses facial expressions, vocalizations, and gestures to initiate interactions with others
- Participates in simple back-and-forth communication, using words and/or gestures

**Strategies for interaction:**

- Communicate with the child from the very beginning, e.g., narrate what is happening throughout the day
- Pay close attention to the child's nonverbal cues and respond thoughtfully
- Provide opportunities for uninterrupted play with the child
- Acknowledge and respond to the child's communication attempts

**Strategies for interaction:**

- Name objects in the child's environment
- Use words that are found in the child's context and culture
- Respond thoughtfully to the child's attempts to interact, e.g., physically move closer to a child who is holding out his arms, smile and nod to the child who is smiling and clapping
- Provide opportunities for the child to communicate with other children and adults

**Standard:** Children demonstrate the ability to engage with and maintain communication with others.

| **16 months to 24 months:** Children increase their capacity for complex interactions as they use a greater number of words and actions, in addition to better understanding the rules of conversational turn-taking. | **21 months to 36 months:** Children maintain social interactions through the pattern of turn-taking, and are able to build upon ideas and thoughts conveyed. | **During this age period:** |
|---|---|---|

| **Indicators for children include:** | **Indicators for children include:** |
|---|---|
| ▪ Engages in short back-and-forth interactions with familiar others using verbal and nonverbal communication, e.g., says or signs "more" after each time a caregiver completes an action the child is enjoying<br><br>▪ Initiates and engages in social interaction with simple words and actions<br><br>▪ Connects gestures and/or sounds to comment about a familiar object, e.g., makes a crying sound after the caregiver hugs a baby doll and says, "Hush, baby"<br><br>▪ Pays attention to the person communicating for a brief period of time<br><br>▪ Demonstrates an understanding of turn-taking in conversations, e.g., asks and answers simple questions | ▪ Responds verbally to an adult's questions or comments<br><br>▪ Begins to make formal requests or responses based on his or her context and culture<br><br>▪ Uses repetition to maintain the conversation and obtain responses from familiar others<br><br>▪ Communicates related ideas when in interactions with others<br><br>▪ Uses "w" questions to initiate and expand conversations, e.g., "who," "what," "why"<br><br>▪ Initiates and engages others using meaningful objects or ideas, e.g., points out his/her artwork or favorite toy to a caregiver to begin conversing |

| **Strategies for interaction:** | **Strategies for interaction:** |
|---|---|
| ▪ Engage in conversations with the child during the day; follow the child's lead in order to inform the conversations<br><br>▪ Describe the child's play, e.g., "You are pushing that car so fast!"<br><br>▪ Respond thoughtfully while interacting and communicating with child, e.g., say "You did it" and clap after the child shares an accomplishment<br><br>▪ Listen and respond to what the child is communicating<br><br>▪ Model turn-taking through everyday interactions | ▪ Engage in conversations with the child every day; model appropriate turn-taking<br><br>▪ Listen carefully to the child and follow his/her lead when communicating<br><br>▪ Pick conversation topics that are meaningful to the child<br><br>▪ Use open-ended questions to build upon what the child is saying |

## The Two-Month Shift

Smiles that children express in the first few weeks of life are often spontaneous and reflexive.[66] At approximately two months of age, children begin to intentionally smile. For caregivers who have been spending all their time feeding, changing, and rocking their new bundle of joy, this is a momentous occasion! The emergence of the social smile marks the start of an intense, social period.[67] Children are now interactively communicating and become more responsive and purposeful in their interactions with their caregivers. Eventually, coos, smiles, and giggles are common in their everyday interactions. These pleasant and loving interactions positively influence children's attachment relationships and further build children's language and communication skills.

# Real World Story

Connor is 28 months old and attends full-time childcare while his mom and dad are at work. He is a bright, energetic little boy who loves to play wrestle with his dad. At school, Connor approaches a young peer and begins to tickle him. The other child, Kyle, stands up quickly and moves away from Connor. Connor looks up, disappointed, and attempts to hug and tackle Kyle once again. Kyle calls for their caregiver, Allie. Allie separates the boys and kneels in front of Connor. "Connor, you must respect Kyle's space. He does not want to be tickled. You must keep your hands to yourself." Connor walks away, upset, and sits down in the reading corner.

At the end of the day, Connor's father arrives to pick him up. Allie pulls Connor's father aside and tells him what occurred with Kyle earlier in the day. Connor's father listens and says, "I believe he was doing what we do at home. Tickling and playfully wrestling are some of the things he loves to do when I am home." Allie smiles and nods. They continue to discuss; once they are finished, Connor's father kneels in front of Connor and says, "Connor, I am sad to hear you had a hard day. I know you love to tickle Daddy and play. That is something that we can do at home when Daddy and Mommy are home, but not when we are with Ms. Allie."

Connor frowns, but nods his head and takes his father's hand to leave.

THIS EXAMPLE HIGHLIGHTS how children begin to learn what behaviors are socially acceptable in different settings. In Connor's home, he is encouraged to engage in physical play with his father. It is a special time for them, when they can express joy. However, at school, it is not allowed. Connor is not intentionally misbehaving; instead he is trying to engage with his peer in what he perceives as a fun manner, as it is for him when he is home. Connor is learning how to interact within two different cultural contexts: home and school. At age two it may be difficult for Connor to control the impulse to engage in this kind of play. With the support of his parents and caregivers, Connor will learn to modify his behavior based on which social and cultural setting he is in.

**This story also relates to:**

**self-regulation**
**Behavior Regulation, p. 25**

**domain 1: Social & Emotional**
**Emotional Expression, p. 35**
**Relationship with Peers, p. 47**

**domain 4: Cognitive**
**Memory, p. 97**
**Logic & Reasoning, p. 113**

# Receptive Communication

Receptive language refers to how well children understand language. Children spend their first year listening to the sounds around them. Newborns can make out all the distinctive sounds used in all languages and can hear differences that adults cannot.[68] However, after six months of age, children concentrate on discriminating sounds and patterns in their primary language. Therefore, their ear becomes more finely tuned to their primary language, and they lose the ability to discriminate speech sounds in other languages.[69] These speech sounds and patterns are the first tools for building vocabulary and an understanding of what is being communicated.

Children understand a lot more than they can express. Children demonstrate understanding through both nonverbal and verbal communication. At one year of age, children understand familiar requests in known situations. For example, a 10-month-old waves his hand after his caregiver says, "Wave bye-bye." As they get older, children can understand more complex commands, including multi-step directions. For example, a 30-month-old follows directions when his caregiver says, "Pick up the ball and bring it to me." The number of words children understand also grows on a daily basis. At the end of 12 months, children can understand approximately 50 words. By 36 months, children have the capacity to understand about 1000 words.[70] Receptive language development is important because the ability to understand and interpret language influences how successful children are in socially interacting with others.

**Standard:** Children demonstrate the ability to comprehend both verbal and nonverbal communication.

**Discover how Receptive Communication is related to:**

**self-regulation**

Attention Regulation, p. 21
Behavior Regulation, p. 25

**domain 1: Social & Emotional**

Empathy, p. 51

**domain 4: Cognitive**

Memory, p. 97
Logic & Reasoning, p. 113

**approaches to learning**

Problem Solving, p. 135

**Standard:** Children demonstrate the ability to comprehend both verbal and nonverbal communication.

| During this age period: | **Birth to 9 months:** Children begin to respond to verbal and nonverbal communication through the use of sounds and physical movements. | **7 months to 18 months:** Children begin to understand and respond to the meaning of actions and sounds. |
|---|---|---|

**Joint attention** is the shared experience of looking at an object, person, or event together, established by pointing, gesturing, or the use of language and/or vocalizations.

**Indicators for children include:**

- Responds to sounds found in the environment, e.g., cries if hears a loud bang, will turn toward a familiar voice
- Calms down when crying after hearing a soothing and familiar voice or receiving physical reassurance, e.g., a hug or gentle pats on back
- Looks or turns toward the familiar person who says his or her name
- Responds to gestures, e.g., waves hello after a familiar person waves to him or her

**Indicators for children include:**

- Engages in joint attention with a caregiver, e.g., joins in looking at the same object or shifts gaze to where someone is pointing
- Follows a one-step, simple request when a gesture is used
- Responds appropriately to familiar words, e.g., hears the words "so big," and puts arms in air
- Understands approximately 100 words relevant to their experiences and cultural context

**Strategies for interaction:**

- Narrate what is happening in the child's environment, e.g., "I am going to pick you up and then we will go change your diaper"
- Consistently respond to the child's verbal and nonverbal cues in a thoughtful manner
- Name familiar people and everyday objects found in the child's environment through verbal and nonverbal communication, e.g., verbally label, point to, touch, and gesture

**Strategies for interaction:**

- Spend quality time with the child sharing in activities such as reading and playing with toys
- Play games where the child can point to objects, e.g., "Where is the cup?"
- Sing songs that are culturally meaningful to the child and encourage him or her to follow along, e.g., "Twinkle, Twinkle, Little Star"
- Continue to name objects that the child is familiar with, e.g., family members, favorite toys and books

**Standard:** Children demonstrate the ability to comprehend both verbal and nonverbal communication.

**16 months to 24 months:** Children begin to demonstrate a complex understanding of meaning in words, facial expressions, gestures, and pictures.

**21 months to 36 months:** Children continue to expand their comprehension across a variety of contexts through the use of words, actions, and symbols.

**During this age period:**

### Indicators for children include:

- Recognizes and demonstrates understanding of familiar pictures, people, and objects, e.g., says "mama" while pointing to mother
- Understands simple commands and questions and can follow two-step requests with the support of gestures and prompting
- Demonstrates understanding of familiar words or phrases by responding appropriately, e.g., sits in chair after hearing it is snack time
- Points to body parts when prompted
- Responds to personal pronouns, e.g., me, her, him

### Indicators for children include:

- Names most objects and people in a familiar environment
- Comprehends compound statements and can follow multi-step directions
- Demonstrates understanding of a story by reacting with sounds, facial expressions, and physical movement, e.g., laughing, widening eyes, or clapping
- Understands simple sentences or directions with prepositions, e.g., "Put cup in sink"
- Responds verbally and/or nonverbally to comments or questions while engaged in conversations with both peers and adults

### Strategies for interaction:

- Continue labeling the child's environment for him or her; name or use sign language when introducing new objects or people
- Use gestures while asking the child to complete actions, e.g., point to the car and point to the toy basket while saying, "Put the car in the basket."
- Ask the child questions while engaged in interactions and activities, e.g., "Can you point to the picture of the kitty?"
- Engage in movement activities that have the child follow directions
- Use books and pictures to engage the child in conversations

### Strategies for interaction:

- Continue to label the child's environment for him or her; name or use sign language when introducing new objects or people
- Ask the child to complete two-step actions, e.g., "Please put the cup in the sink and then wash your hands."
- Read with the child often; ask them questions about what just happened in the story or what will happen next
- Ask the child about their favorite toy or friend; gently prompt them to expand their answer

## Nonverbal Communication vs. Verbal Communication

Language includes nonverbal and verbal forms of communication. Early forms of nonverbal communication consist of reflexes, eye contact, gaze aversion, and body language. Children later use gestures, such as pointing and shaking their heads to convey feelings and wants. Verbal communication begins with cries, sounds, and coos. Eventually, children use single words to name objects and people. Between 24 months and 36 months of age, children combine words and begin to form short, clear sentences. Children who have a speech or hearing impairment, or are developmentally delayed, can also use nonverbal strategies to understand language and express themselves. Sign language can be used to communicate, and helps ease frustrations in young children when they lack the ability to use words. Pictures and drawings are also good tools for both caregivers and children to use when communicating and expressing themselves.

# Expressive Communication

Expressive language refers to how children express their needs, wants, and feelings to others through nonverbal and verbal communication.

Communication begins at birth and includes reflexive cries, gaze aversion, and body language.[71] After four months of age, children transition to using additional sounds as they build the capacity for verbal language. They produce different types of cries and experiment with sounds such as cooing, laughing, babbling, and even yelling. Around nine to 12 months, children begin to point in order to communicate purposefully. They use combinations of gestures and vocalizations to indicate interest in objects and people.[72] These are all precursors to the words that will emerge between 12 and 15 months.

In the second year of life, children go from using first words to combining words. First words are usually two-syllable utterances such as "baba" for bottle. These are words for people and objects that are meaningful in children's lives. Often, caregivers are the only people who can make out these words as they emerge within children's context. Children also utter two-word sentences to convey meanings such as, "Daddy gone," or "Me cookie." By 36 months, children produce short, clear sentences to make statements, ask questions, and engage in back-and-forth exchanges.[73]

**Standard:** Children demonstrate the ability to understand and convey thoughts through both nonverbal and verbal expression.

**Discover how Expressive Communication is related to:**

**self-regulation**

**Emotional Regulation, p. 17**
**Attention Regulation, p. 21**

**domain 1: Social & Emotional**

**Emotional Expression, p. 35**
**Relationship with Peers, p. 47**

**domain 4: Cognitive**

**Memory, p. 97**
**Logic & Reasoning, p. 113**

**Standard:** Children demonstrate the ability to understand and convey thoughts through both nonverbal and verbal expression.

| During this age period: | **Birth to 9 months:** Children begin to experiment with sounds and other various forms of communication to show interest in and exert influence on their environment. | **7 months to 18 months:** Children's language progresses from babbling to utterances and to first words. Toward the end of this age period, babbling decreases as children begin to build their vocabulary. |
|---|---|---|
| **Telegraphic speech**, or the "two-word" stage, refers to the use of combining two words to convey meaning. These two-word sentences consist of a noun and verb and lack transitional phrases, e.g., "Mommy go." | **Indicators for children include:**<br><br>▪ Cries to signal hunger, pain, or distress<br>▪ Uses smiles and other facial expressions to initiate social contact<br>▪ Coos and uses physical movements to engage familiar others<br>▪ Babbles and experiments with all types of sounds (two-lip sounds: "p," "b," "m")<br>▪ Combines different types of babbles<br>▪ Begins to point to objects in his/her environment | **Indicators for children include:**<br><br>▪ Babbles using the sounds of the home language<br>▪ Creates long, babbled sentences<br>▪ Uses nonverbal communication to express ideas, e.g., waves bye-bye, signs "more" when eating<br>▪ Utters first words; these words are for familiar objects and people, e.g., "mama," "bottle"<br>▪ Names a few familiar objects in his/her environment<br>▪ Uses one word to convey a message, e.g., "milk" for "I want milk" |
| | **Strategies for interaction:**<br><br>▪ Engage in simple turn-taking, e.g., make a cooing sound after the child has made a similar noise<br>▪ Repeat the babbling sounds that the child makes; encourage the child to make more sounds<br>▪ Create a language-rich environment; communicate with the child throughout the day about what is happening<br>▪ Take into account the home language of the child and try to use familiar words in that particular language | **Strategies for interaction:**<br><br>▪ Acknowledge and respond to the child's communication attempts<br>▪ Expand on what the child is saying, e.g., "Milk? You want to drink milk?"<br>▪ Show appreciation when the child is attempting to use new words<br>▪ Talk and read with the child often; use words and books that reflect the home culture<br>▪ Narrate what is occurring throughout the child's day, e.g., "Let's sit down and have lunch" |

**Standard:** Children demonstrate the ability to understand and convey thoughts through both nonverbal and verbal expression.

| **16 months to 24 months:** Children continue to experiment with language and expand their vocabulary as they begin to speak in two-word utterances. | **21 months to 36 months:** Children communicate about present themes and begin to combine a few words into mini-sentences to express needs and wants. | **During this age period:** |
|---|---|---|

### Indicators for children include:

- Uses more words than gestures when speaking
- Repeats overheard words
- Has a vocabulary of approximately 80 words
- Begins to use telegraphic speech, consisting of phrases with words left out, e.g., "baby sleep" for "The baby is sleeping"

### Indicators for children include:

- Speaks in three-word utterances, e.g., "I want ball"
- Begins to use pronouns and prepositions, e.g., "He took my toy" and "on the table"
- Makes mistakes, which signal that he or she is working out complex grammar rules
- Uses adjectives in speech, e.g., "blue car"
- Uses simple sentences, e.g., "I want the yellow cup"
- Has a vocabulary of more than 300 words

### Strategies for interaction:

- Continue to engage in conversations with the child about topics meaningful to him or her
- Encourage the child when speaking and elaborate on what the child is saying
- Acknowledge and extend what the child is expressing, e.g., "Yes, I see the baby; the baby is sleeping"

### Strategies for interaction:

- Model but do not correct when the child is speaking, e.g., "Oh, Mommy went to work?" after the child expresses "Mommy goed work"
- Speak in simple sentences when communicating with the child
- Allow children to play and experiment with language through songs and word rhymes
- Expand on what the child is saying, e.g., "The baby is crying; maybe she is hungry?" after the child expresses, "The baby is crying."

# Real World Story

Christina is 36 months of age and is learning both English and Spanish. Currently, she is playing with a doll in the pretend play area. She is rocking a doll, whispering, "Shhh, no cry."

**Private speech** is children's use of self-directed language to guide, communicate, and regulate their behavior and emotions. While this self-directed language can be heard, it is not intended for others.

**Code-switching** is the practice of moving back and forth between two languages within the same dialogue or conversation.

Her caregiver, Jennifer, is sitting next to her observing while she plays. Jennifer asks, "Why is the baby crying?" Christina replies, "She hungry." Jennifer then says, "What can you give her so she is not hungry anymore?" Christina walks over to the pretend kitchen and grabs a toy bottle and holds it up, "Leche. Quiero milk." Christina pretends to give the baby a bottle and continues to rock the doll for a short time. She pretends to burp the doll and then hugs and kisses it. Christina stands up and removes the blanket and exclaims, "Baby needs diaper." She undresses the doll and says, "Shirt off." She pretends to change the diaper and puts the play clothes back on. Jennifer continues to observe Christina play and a few minutes later says, "Christina, in five minutes we are going to clean up and get ready to wash our hands." Christina looks up, and then continues to play with the doll. "Three minutes left and then we will clean up," Jennifer says. Christina mutters, "Clean up." After time is up and Jennifer lets Christina know, Christina begins to put toys away and continues to say, "Clean up." Once she is done cleaning up, Christina runs over to the sink, pushes her sleeves up, and washes her hands.

THIS EXAMPLE ILLUSTRATES different forms of language use, and caregiver strategies to further develop skills. Christina uses private speech, or self-directed talk, in two instances, both when she is undressing the doll and when she is cleaning up. Private speech helps her walk through the task that she is engaged in. In addition to private speech, Christina demonstrates an example of code-switching when she says, "Leche. Quiero milk." (Milk. Want milk.) She combines English and Spanish in one sentence, without losing the consistency of the grammatical structure.

Jennifer supports Christina's language development by asking her open-ended questions in order to extend interactions. Jennifer's advance warning before transitions supports Christina's emotional regulation because she now has time to prepare for a change in activity. Christina demonstrates the use of logic both when she follows the appropriate steps to change the doll's diaper and when she grabs the milk bottle to feed the (hungry) doll. Finally, Christina demonstrates cultural and social conventions by kissing and hugging the doll, in order to communicate feelings.

**This story also relates to:**

**self-regulation**
**Emotional Regulation, p. 17**

**domain 1: Social & Emotional**
**Emotional Expression, p. 35**

**domain 3: Language**
**Social Communication, p. 75**
**Receptive Communication, p. 79**

**domain 4: Cognitive**
**Logic & Reasoning, p. 113**

# Early Literacy

Early Literacy includes both spoken components and written forms of language.[74] Children develop early literacy skills through their everyday interactions with their caregivers. These include singing, rhyming, and reading books together. Young children explore books though looking, mouthing, and touching them. They "read" books by simply moving books around or turning pages. These early experiences are the beginning of reading and writing for young children and influence the development of their literacy skills.

During the second year of life, children show an increased interest in books. They point to certain pictures, and initiate reading together by gesturing to a particular book. Children identify pictures of certain objects that they are familiar with and name them. Children also become aware of print that is found in their environment. This includes magazines, newspapers, signs, and symbols. Scribbling and drawing also happen during the end of the second and throughout the third year. Opportunities to hold writing utensils, scribble, and draw help children develop their pre-writing skills.

New technology provides children with different opportunities to engage with print and language. For children over the age of two, *limited* use of electronic media, such as touch electronic readers, tablets, or smart phones, can be enriching, *as long* as there is interaction with adults.[75] *As in every aspect of development, meaningful interactions between children and caregivers are most beneficial for healthy development.*[76]

**Standard:** Children demonstrate interest in and comprehension of printed materials.

**Discover how Early Literacy is related to:**

**Standard:** Children demonstrate interest in and comprehension of printed materials.

| **During this age period:** | **Birth to 9 months:** Children begin to build the foundation for early literacy by exploring printed materials and building a capacity for reading printed materials. | **7 months to 18 months:** Children become participants as they actively engage in literacy activities with printed materials. |
|---|---|---|

### Indicators for children include:

- Shows awareness of printed materials, e.g., stares at a picture in a book
- Reaches out to grasp and mouth books
- Uses multiple senses to explore books, e.g., explores books with different textures
- Uses hands to manipulate printed materials, e.g., attempts to turn pages of a board book, grasps objects in hands
- Points or makes sounds while looking at picture books
- Focuses attention while looking at printed materials for brief periods of time

### Indicators for children include:

- Points to pictures in a book and reacts, e.g., smiles when sees a picture of a dog
- Initiates literacy activities, e.g., gestures toward a book or attempts to turn pages of a paper book or magazine
- Imitates gestures and sounds during activities, e.g., hand actions during singing, babbles as caregiver reads book
- Increases ability to focus for longer periods of time on printed materials
- Grasps objects and attempts to scribble, e.g., makes a slight mark with a crayon on a piece of paper

### Strategies for interaction:

- Introduce books from diverse cultures and incorporate them into the child's daily routine
- Allow the child to explore books by mouthing and turning the pages
- Share different types of printed materials with the child, e.g., board books, magazines, cereal boxes
- Name and point to objects in the child's environment
- Spend time with the child reading and looking at books together

### Strategies for interaction:

- Use songs and word rhymes; sing finger-play songs such as "pat-a-cake"
- Point and name pictures in books
- Read or sign stories that repeat words or phrases; ensure to say or sign these words or phrases in the child's primary language if possible
- Create designated areas in the classroom or at home where books are easily accessible to the child
- Provide the child with opportunities to hold different types of writing utensils in his/her hands, e.g., large crayon or thick paint brushes

**Standard:** Children demonstrate interest in and comprehension of printed materials.

| **16 months to 24 months:** Children begin to demonstrate an understanding of printed words and materials. | **21 months to 36 months:** Children engage others in literacy activities, and have an increased awareness and understanding of the variety of different types of print found in their environment | **During this age period:** |
|---|---|---|

### Indicators for children include:

- Turns the pages of a board book, one by one
- Points to familiar pictures and actions in books
- Repeats familiar words in a book when being read to
- Begins to anticipate what may happen next in a familiar book, e.g., generates sounds and movements and/or uses words for pictures
- Randomly scribbles
- Identifies a favorite book and signals familiar others to read with him or her, e.g., brings the book over, or points and gestures

### Indicators for children include:

- Imitates adult role when engages with printed materials, e.g., pretends to read a book or newspaper to stuffed animals or dolls
- Participates in early literacy activities independently, e.g., sits in a reading nook and browses through the pages
- Recites parts of a book from memory
- Scribbles in a more orderly fashion and begins to name what he or she has drawn
- Expresses what happens next when reading a familiar book with a caregiver, e.g., uses gestures, words, and/or sounds

### Strategies for interaction:

- Provide access to magazines and books throughout the child's day
- Encourage the child to repeat words and point to objects that are found in magazines and books
- Name objects in the child's environment, e.g., bed, window, table, bottle
- Spend quality time with the child during which reading is the focus; follow the child's lead during this time

### Strategies for interaction:

- Provide the child with books that he or she can connect to, e.g., a book about different foods, or about family
- Encourage the child to guess what is happening in the book or what will happen next in a story by using pictures as a guide
- Provide opportunities for the child to use art materials such as paper, paint, and crayons
- Create a special book with the child's picture and ensure that it reflects the child as a unique individual; read this book often with the child

# Real World Story

Sam is 32 months old. He is sitting in his Uncle Steve's lap and together they are looking at an electronic reader. Steve is reading an electronic book to Sam, while Sam follows along, looking at the images on the screen. Steve says, "Look, Sam, do you see the turtle?" Sam nods his head, points to the image, and says, "Turtle!" Steve moves his fingers over the screen to turn to the next page. Sam begins to attempt the same action over the screen. Steve stops reading and asks, "Do you want to try to turn the page?" Sam nods his head and attempts again. He is successful and claps his hands when he is finished. Steve exclaims, "Yay! You did it!" matching Sam's enthusiasm.

They continue to read the story and Sam turns all the pages on the screen for Steve. Sam interrupts Steve a few times to point to an image and names what he is pointing to. When they reach the end of the story, Sam says, "More book" to Steve. Steve nods and begins to read another brief story. Sam sits back in Steve's lap and listens. Steve gets to a point in the story where there is a lion's roar. Sam leaps up and begins to crawl on the floor, roaring. Steve puts the electronic reader aside, and begins to crawl on all fours with Sam. Sam laughs and chases Steve around the room.

> The American Academy of Pediatrics (AAP) recommends that children under two years of age not engage in **any** screen time and that those older than two watch or engage with no more than one to two hours a day of **quality** programming.

THIS EXAMPLE ILLUSTRATES an interaction with technology between a child and a caregiver. As previously mentioned, for children over the age of two, *limited* use of electronic media, such as touch electronic readers, tablets, or smart phones, can be enriching, *as long* as there is interaction with adults.[77] *As in every aspect of development, meaningful interactions between children and caregivers are most beneficial for healthy development.*[78]

Sam and Steve are engaged in the same manner as they would be if reading a regular book. Steve makes sure to allow Sam to lead the interaction, and follows his lead throughout. He supports Sam's fine motor development and eye-hand coordination by letting him flip the pages, using his finger and wrist in a specific way, and genuinely praises Sam when he is successful. Steve is also aware of when to stop the interaction with the electronic reader and does, once Sam disengages. They then transition to a different interaction in which they are engaged in creative movement and pretend play, building upon the story they just read.

**This story also relates to:**

**domain 1: Social & Emotional**

**Emotional Expression, p. 35**
**Relationship with Adults, p. 39**

**domain 2: Physical**

**Gross Motor, p. 57**
**Fine Motor, p. 61**

**domain 4: Cognitive**

**Symbolic Thought, p. 105**
**Creative Expression, p. 109**

## *Keep In Mind*

Child development does not occur in isolation; children reach their developmental milestones within their social and cultural contexts. However, while "how the child develops" may look different, "what the child develops" can be observed in a more universal fashion. Below are some indicators that may warrant a discussion with child's healthcare provider for closer examination.

☐ Does not smile by four months of age

☐ Does not babble, point, or make meaningful gestures by 12 months of age

☐ **Does not verbally imitate the names of familiar objects by 18 months of age**

☐ Does not use three-word phrases by age three

# Cognitive Development

The rate at which children learn during the first three years is remarkable; they will learn more in these first three years than at any other point in their lives.[79] Cognitive development in young children refers to their process of learning and the development of intelligence and other mental capabilities, such as memory, reasoning, problem solving, and thinking.

As with every aspect of development, cognitive development occurs within the context of positive and nurturing relationships. Play is also a vital tool in cognitive development. Play is used to problem-solve and is the manner in which children learn about their world and build the confidence to master new skills.

Cognitive development is observed through specific behaviors. In early infancy, children have limited capability to outwardly express mental understanding. This does not mean that they are not learning, or that they are not able to gather and process sensory information that they are receiving. Children use all of their senses to take in information and begin to form simple concepts. During the first six weeks of life, children use reflexes to learn about and impact their environment. Eventually, these involuntary skills start to become voluntary. For example, by four months, children's grasping reflex transitions to intentional grasping. After four months of age, children become more object-oriented, and use intentional movements such as reaching, grasping, and mouthing to explore and learn about objects in their environment.[80] After eight months of age, children explore simple goal-oriented behavior, imitate simple actions of others, and start to develop logic in order to plan and meet simple objectives.[81] For example, children will repeat certain actions, such as banging the table, or pushing objects off a high chair.

**Executive function** in the first three years of life refers to the emerging ability to organize and manage conscious thoughts, actions, and emotions.[82] Executive function is a process that both involves and impacts regulatory capacities and cognitive function in young children. Executive function helps children build attention, manage their impulses, think logically, reason, and problem-solve. The development of executive function in children is fostered by nurturing relationships and meaningful interactions with responsive caregivers. The Strategies for Interactions throughout the Guidelines provide examples of enriching experiences that promote the development of executive function.

An important cognitive shift that develops around eight months is the understanding that objects and people exist even when they are out of sight, or not heard. This is known as object permanence and provides children with understanding that objects have a separate and permanent existence.[83] Object permanence is necessary for children to develop **symbolic thought**, which begins at approximately 18 to 24 months of age. Children also use mobility to expand their exploration of their environment. During the second year of life, children begin to retrieve hidden objects, recognize patterns, fill and empty containers, and have a basic understanding of shapes. All of these achievements are examples of skill development in the following cognitive areas: logic and reason, memory, spatial relationships, quantity and numbers, and science concepts and exploration.

Part of cognitive development includes children's use of creative expression. They use art, music, movement, and play to discover and master new skills. Caregivers can provide opportunities for creative expression through

exposure to singing, dancing, drawing, and pretend play. Children also have increasing capacity to understand basic concepts regarding safety and well-being. While children are growing in their mental capacities, they still rely on their caregivers to structure safe and learning-rich environments. Caregivers should provide consistent and predictable daily routines in order to best support children in their exploration and play.

# Concept Development

Children use their everyday interactions to build understanding and attribute meaning to people and objects in their environment.

In infancy, children use their senses to receive information about their physical environment. They learn about object properties through physical exploration and through their interactions with their caregivers. Children begin to build schemas, or organized patterns of thought, for information they receive; these schemas soon develop into actual mental representations or concepts of objects and people.[84] Once children develop object permanence, they understand that objects and people are separate and permanent, and they have a mental, abstract representation of them. Children now can use familiar objects in the manner they are intended to be used and can identify and name familiar people and objects.

Around 18 months of age, there is a shift in children's cognitive development that enables them to think symbolically. This is marked by children's ability to use objects to represent other objects and to engage in simple pretend play. For example, children will pretend to drink milk from an empty cup, or use a toy hammer as a pretend phone. At 24 months of age, children can identify characteristics of objects and people, and are able to distinguish their different properties. Children's pretend play becomes more complex as they are able to incorporate more sophisticated aspects of symbolic thought. By 36 months, children use language and actions during play in order to explore adult roles and relationships and sort emotions. Children also begin to categorize familiar objects by their properties, such as color or type.

**Standard:** Children demonstrate the ability to connect pieces of information in understanding objects, ideas, and relationships.

**Discover how Concept Development is related to:**

**self-regulation**
Attention Regulation, p. 21

**domain 1: Social & Emotional**
Attachment Relationships, p. 31
Self-Concept, p. 43

**domain 2: Physical**
Perceptual, p. 65

**domain 3: Language**
Receptive Communication, p. 79
Expressive Communication, p. 83

**Standard:** Children demonstrate the ability to connect pieces of information in understanding objects, ideas, and relationships.

| During this age period: | **Birth to 9 months:** Children begin to receive and organize information through social interactions and sensory exploration. | **7 months to 18 months:** Children begin to recognize object characteristics, and build awareness of simple concepts through interactions and exploration. |
|---|---|---|

**Concept** refers to a general notion or an abstract idea formed in the mind, derived from specific occurrences. Early experiences form schemes, which form into concepts.

**Schemes** are early patterns and processes that organize information and help infants make sense of their environment.

### Indicators for children include:

- Turns head toward sounds
- Begins to focus on objects, sounds, and people
- Actively explores the environment through the five senses
- Attempts to repeat an action, e.g., pats the table and tries to pat it again
- Focuses and begins to distinguish between familiar and unfamiliar objects, sounds, and people

### Indicators for children include:

- Develops object permanence, aware that an object still exists even when it is not physically visible, e.g., pulls the blanket off the pacifier, cries when caregiver leaves the room
- Uses physical actions while exploring objects, e.g., rolls a ball back and forth on the floor, purposefully throws object repeatedly onto floor to be picked up
- Identifies and indicates objects and people in pictures, e.g., points
- Focuses attention on objects, people, and sounds for increasing amounts of time

### Strategies for interaction:

- Provide responsive and nurturing care; read infant's cues
- Provide objects that the child can manipulate, mouth, and grasp
- Imitate actions the child attempts to make
- Engage in play with the child; follow the child's lead

### Strategies for interaction:

- Use play to hide objects from the child, and encourage the child to find them
- Demonstrate how to make different objects move, e.g., roll a ball gently toward the child
- Name objects found in the child's environment
- Talk to the child about objects and their characteristics, e.g., "Both of these are red"
- Name objects and pictures the child points to

**Standard:** Children demonstrate the ability to connect pieces of information in understanding objects, ideas, and relationships.

**16 months to 24 months:** Children begin to understand object representation and begin to use verbal and nonverbal communication with object use.

**21 months to 36 months:** Children begin to demonstrate the ability to classify objects based on common characteristics, and begin to apply knowledge of simple concepts to new situations.

**During this age period:**

**Indicators for children include:**

- Pretends to use objects in their intended manner, e.g., holds a play phone to ear and engages in a conversation by babbling
- Begins to identify and name objects and people
- Uses an object to represent another during play, e.g., uses block as a phone
- Begins to identify characteristics of the object, e.g., "red ball"
- With assistance, groups a few objects by similar characteristics, e.g., color, shape, or size

**Indicators for children include:**

- Identifies characteristics of objects and people when named, e.g., colors
- Begins to arrange objects in a line, e.g., lines up toy cars, one after the other
- Uses symbolic representation during play, e.g., grabs a hair brush and uses it as a telephone
- Purposefully arranges similar objects, e.g., divides plastic blocks into a red group, a blue group, and a yellow group
- Identifies categories, e.g., able to point out all the animals within a picture even with different types of objects represented

**Strategies for interaction:**

- Continue labeling the child's environment for him or her; introduce new objects to the child by naming them
- Engage in play with the child; follow the child's lead
- Create a simple game where the child can try to sort objects by one attribute
- Encourage the child to identify objects that are the same, e.g., matching activities

**Strategies for interaction:**

- Incorporate learning about colors into songs, reading, and sensory play
- Provide different materials and objects of the same shape and color, e.g., blocks
- Play simple matching games with the child; provide guidance as needed
- Expand on the child's play by introducing new ways to use familiar objects
- Create a simple game where the child can try to sort objects by two or three attributes

### Symbolic Representation

**Delayed imitation,** language, and symbolic play indicate the emergence of symbolic representation in children.[85] Symbolic representation occurs when children use symbols to represent a concept that is not present or visible. Symbols include language, images, and different concrete objects. For example, children engage in symbolic representation during play. They may pretend to brush their hair with their hand, or hold up a block to their ear and pretend it's a telephone. Children may see a picture of a man and say, "daddy." As children develop, their use of symbolic representation becomes more complex. They use symbolic representation in play to explore relationships and adults' roles, in addition to managing emotions. Children may designate a "mommy" and "baby" while playing, and act out some of the behaviors attributed to those particular roles.

# Memory

Early experiences help children understand basic concepts and categories, thereby helping them make sense of the world around them.[86] Children begin to form memories through everyday interactions with

their caregivers and their environment. Prior to the development of object permanence, children become familiar with people, objects, and actions. For example, children turn their head toward a familiar voice and begin to anticipate certain patterns within their routines, such as holding a bottle, or opening their mouth when they see a spoon. Once children acquire object permanence, they have the capacity to remember that people and objects still exist even when they are out of sight. Object permanence allows children to realize that their caregivers have left the room, and provides them the ability to find hidden objects.

Children progress from anticipating the function of objects, for example, shaking a rattle with the expectation it will produce sound, to anticipating routines throughout the day. Children may demonstrate this by walking over to their chair after hearing a caregiver say, "Snack time." Children also demonstrate awareness of people or objects that are not present. Children may ask for their parents or their siblings throughout the day while in the care of others.

Around 24 months of age, children have the capacity to remember a certain sequence of events. For example, children who attend a childcare center may remember that dimming the lights, lying in their cot, and listening to a story, in that particular order, are what constitute naptime. Near 36 months of age, children can demonstrate more complex examples of sequencing as they communicate with others or while engaged in pretend play. As children continue to develop, their ability to retain long-term memories also improves.

**Discover how Memory is related to:**

**self-regulation**
**Attention Regulation, p. 21**

**domain 1: Social & Emotional**
**Attachment Relationships, p. 31**

**domain 2: Physical**
**Perceptual, p. 65**

**domain 3: Language**
**Receptive Communication, p. 79**
**Expressive Communication, p. 83**

**Standard:** Children demonstrate the ability to acquire, store, recall, and apply past experiences.

| During this age period: | **Birth to 9 months:** Children begin to form memories from their experiences and will begin to anticipate certain patterns for occurrences. | **7 months to 18 months:** Children remember familiar people, routines, actions, places, and objects. |
|---|---|---|

### Indicators for children include:

- Turns toward familiar voices, sounds, and/or objects
- Anticipates familiar events, e.g., reaches for bottle and brings to mouth
- Finds an object that it is partially hidden
- Remembers that objects and people still exist even when they are no longer physically present, e.g., looks around for parent when parent leaves the room

### Indicators for children include:

- Finds hidden objects, e.g., lifts a blanket to uncover a toy after seeing the caregiver hide it
- Shows awareness of non-present, familiar adults, e.g., while in childcare, asks for mom and dad throughout the day
- Searches for objects in their usual location, e.g., finds their favorite book on the bookshelf
- Anticipates what event comes next in his or her daily routine, e.g., sits down for a morning snack after a music activity

### Strategies for interaction:

- Provide interesting and age-appropriate toys and objects for exploration
- Engage and interact with the child frequently during the day
- Hide toys under blankets and wait for the child to respond
- Play games such as peek-a-boo, or play with a jack-in-the-box

### Strategies for interaction:

- Play with the child using various objects which they can explore
- Set routines; create picture cards with the daily routine so the child can begin to understand what his or her day will consist of
- Play simple games that include hiding a toy in a nearby location
- Respond to the child in a sensitive manner when he or she asks for someone who is not currently there, e.g., "I know you miss your Mommy; she will be back soon to pick you up."

**Standard:** Children demonstrate the ability to acquire, store, recall, and apply past experiences.

| | | **During this age period:** |
|---|---|---|
| **16 months to 24 months:** Children recognize and anticipate the series of steps in familiar activities. | **21 months to 36 months:** Children anticipate the steps in experiences and activities, and understand the sequence of events. They may also remember and recall past events and translate knowledge of past experiences to new experiences. | |

| **Indicators for children include:** | **Indicators for children include:** |
|---|---|
| ▪ Remembers several steps in familiar routines and carries out these routines with little or no prompting<br><br>▪ Recalls an event in the past, e.g., a special visitor, or a friend's birthday party<br><br>▪ Searches for objects in different places | ▪ Shares with adult what happened in school that day<br><br>▪ Carries out routines independently without being reminded what comes next in the daily routine.<br><br>▪ Uses play to communicate about previous events or experiences, including the sequence of events that took place, e.g., a friend's birthday party<br><br>▪ Translates past knowledge to new experiences, e.g., recalls a trip to the dentist, and narrates and acts out each step of the experience on a peer during play |

| **Strategies for interaction:** | **Strategies for interaction:** |
|---|---|
| ▪ Engage in conversations with the child pertaining to past experiences; ask questions<br><br>▪ Notify the child when there will be a change in the daily routine<br><br>▪ Ask the child what he or she thinks may happen next when reading a familiar story | ▪ Listen to the child's stories; ask open-ended questions<br><br>▪ Model sequencing during play, e.g., "First we will put on these hats, then we will go to the tea party, we will drink tea, and finally we will go back home"<br><br>▪ Read a story with the child; ask the child if he or she can remember what happened at a certain part<br><br>▪ Encourage the child to create a story around a picture he or she has drawn |

## Sharing Memories

When children near 36 months of age, they begin to recall experiences that are emotionally significant. For example, children can recall a birthday party or a special day with their family, or an experience that was frightening or traumatic. Children recall the sequence of these events and can communicate these experiences to others. Caregivers can encourage children to share these memories by asking them open-ended questions, therefore prompting them to expand on what they are saying, or having them draw out their experiences. Not only does this support children's memory development and language development, it also supports their emotional regulation and expression. In cases where children are sharing fears and negative experiences, the same sensitive approach is encouraged. Caregivers demonstrate empathy and understanding by validating the emotions that children express when recalling a fearful or traumatic event and should always follow the child's lead during these conversations.

# Spatial Relationships

Spatial relationships refer to children's understanding of how objects and people move in relation to each other. In infancy, children use their senses to observe and receive information about objects and people in their environment. They can see and follow people and objects with their eyes. They focus on mouthing and grasping objects to learn about their physical properties. As they grow, children use trial and error to experiment with movement. They attempt to fit objects in space, such as dropping objects into containers. With newfound mobility, children learn about their own body and its relationship to the physical environment around them. They may crawl around obstacles and over people, or move objects out of their way, to reach their intended goal.

With growing language and cognitive abilities, children understand words that characterize and describe objects in their environment. They know what a large object is versus a small one, and can understand simple prepositions. Their improving hand-eye coordination and fine motor skills allow them to use trial and error in solving more complex challenges, such as fitting puzzle pieces in their corresponding slot, or successfully dropping shapes into a shape sorter. Children are able to move their bodies in different ways to accomplish goals, such as squeezing their bodies into a small space, or bending down to retrieve an object that has rolled under the table. By 36 months, children use words to describe both people and object properties and can recognize where their bodies are in relation to others without physical trial and error.

**Standard:** Children demonstrate an awareness of how objects and people move and fit in space.

**Discover how Spatial Relationships is related to:**

**self-regulation**

Attention Regulation, p. 21

**domain 2: Physical**

Gross Motor, p. 57
Fine Motor, p. 61
Perceptual, p. 65

**domain 3: Language**

Receptive Communication, p. 79
Expressive Communication, p. 83

**approaches to learning**

Problem Solving, p. 135
Persistence, Effort, & Attentiveness, p. 143

**Standard:** Children demonstrate an awareness of how objects and people move and fit in space.

| During this age period: | **Birth to 9 months:** Children use observation and sensory exploration to begin building an understanding of how objects and people move in relationship to each other. | **7 months to 18 months:** Children begin to use trial and error in discovering how objects and people move and fit in relationship to each other. |
|---|---|---|

**Spatial relationships** refer to how objects and people are located in space in relation to other objects and people.

**Indicators for children include:**

- Observes objects and people in the immediate environment, e.g., looks at own hands and feet, tracks caregiver with eyes, turns head toward sounds
- Reaches and grasps for objects
- Explores through the use of different senses, e.g., begins to mouth and/or pat objects
- Focuses attention on an object in motion and follows it, e.g., watches a toy roll away after it falls

**Indicators for children include:**

- Puts objects in a bucket and then dumps them out; repeats this action
- Begins to identify physical obstacles and possible solutions when moving around, e.g., crawls around a chair instead of under it
- Drops objects such as toys and watches them move
- Discriminates between small and large objects, e.g., uses one hand or two hands in a variety of ways

**Strategies for interaction:**

- Provide interesting and age-appropriate toys and objects for exploration
- Engage and interact with the child frequently during the day; follow the child's lead during play

**Strategies for interaction:**

- Provide different types of objects that the child can move around, e.g., toy cars, balls, nesting cups
- Create safe play spaces in which the child can crawl, climb, and move around
- Provide time outside for the child to explore and interact

**Standard:** Children demonstrate an awareness of how objects and people move and fit in space.

| **16 months to 24 months:** Children have a clearer sense of size and direction and use this knowledge to expand their understanding of how objects move and fit in relationship to each other. | **21 months to 36 months:** Children can better predict how objects and people will fit and move in relationship to each other. Children have knowledge of object properties and apply this knowledge without having to rely on physical trial and error. | **During this age period:** |
|---|---|---|
| **Indicators for children include:** | **Indicators for children include:** | **Object properties** are observable characteristics of objects. Examples of object properties include: size, weight, shape, color, and temperature. |
| • Understands words that characterize size, e.g., big, small<br><br>• Uses simple trial and error to complete simple puzzles, e.g., matches piece, orients and attempts to turn to make a puzzle piece fit<br><br>• Recognizes the proper direction of objects, e.g., will turn over an upside-down cup<br><br>• Begins to understand simple prepositions, e.g., under, in, behind | • Uses words and gestures to describe size of objects<br><br>• Recognizes where his or her body is in relation to objects, e.g., squeezing in behind a chair<br><br>• Completes simple puzzles with less trial and error, e.g., can match a puzzle piece to its correct slot by identifying the size and shape by simply looking at it.<br><br>• Actively uses body to change where he or she is in relation to objects, e.g., climbs to sit on the couch | |
| **Strategies for interaction:** | **Strategies for interaction:** | |
| • Narrate while assisting the child in figuring out a solution, e.g., "Let's try to turn the puzzle piece this way"<br><br>• Provide the child with opportunities to problem-solve with and without your help; minimize the possibility for the child to become frustrated<br><br>• Start to ask the child to do complete simple actions that include a preposition, e.g., "Can you put the book on the table?" | • Provide puzzles and other fine-motor activities for the child to engage in<br><br>• Engage in movement activities that promote balance skills<br><br>• Describe everyday objects by size, shape, and other characteristics.<br><br>• Create a safe obstacle course where the child can run, climb, crawl, scoot, and maneuver his or her body | |

### Everyday Explorations

Children experiment with object properties from very early on. At first, they use observation to take in information from their environment. They notice contrasts in colors and patterns. They are able to make out human faces and begin to distinguish among them. As children grow, they use physical exploration to learn about object properties. Children go from simply mouthing or patting an object to turning, twisting, or shaking it in order to learn and explore. They learn to identify which objects produce specific results. For example, they can flip on and off a light switch, or press buttons on different objects to produce music or different color lights. Children continue to become more and more aware of object properties as their cognition develops. They will soon be able to name and distinguish between colors and shapes. Children will also be able to identify differences in weight and quantity. Sensory experiences, such as water and sand play, also support children in distinguishing between different textures.

# Symbolic Thought

Children learn about objects, actions, and people through observations, interaction, and exploration. They take information in through all of their senses to build a basic understanding of the world around them.

By eight months of age, children develop object permanence – they know that objects and people continue to exist even though the objects and people can no longer be seen or heard. This realization is why children cry when their caregiver leaves the room, or why they look under a blanket to uncover a toy. Children need object permanence in order to develop symbolic thought.

As they grow, children continue to explore their environment and play with objects the way they are intended to be used. Children will push a toy car around the room, or hold a toy phone up to their ear. Language development is closely related to this cognitive skill, as children use words to represent meaningful people and objects in their lives, for example, "baba" for bottle, or "dahee" for the family dog.

True symbolic thought emerges around 18 months of age with children's ability to think in images and symbols.[87] Children represent concrete objects by using images, words, gestures, or play. For example, children may use a wooden block as a phone during play. Or, they may pretend to cook food in the toy kitchen. Play becomes increasingly symbolic, as children use pretend play to make sense of the world. By 36 months, children can use symbolic play to problem-solve, sort out feelings, and explore roles and relationships.

**Standard:** Children demonstrate the understanding of concepts, experiences, and ideas through symbolic representation.

**Discover how Symbolic Thought is related to:**

**Standard:** Children demonstrate the understanding of concepts, experiences, and ideas through symbolic representation.

| During this age period: | **Birth to 9 months:** Children use observation, exploration, and social interaction to learn about objects, actions, and people. | **7 months to 18 months:** Children use social interaction to continue to gather meaning from objects, actions, and people. Children move from exploring objects to learning how to play with objects in ways they are intended to be used. Toward the end of this age period, children begin to use one object to represent another object. |
|---|---|---|

**Symbolic representation** refers to children's understanding of how an image or different objects can represent familiar objects.

**Object permanence** refers to children's understanding that objects continue to exist even though they can no longer be seen or heard.

### Indicators for children include:

- Uses senses to explore objects, e.g., observes, mouths, touches
- Interacts with caregiver(s) and the environment
- Physically manipulates objects, e.g., twists and turns toys, drops items
- Combines objects in play
- Locates an object that has been partially hidden

### Indicators for children include:

- Demonstrates object permanence, e.g., realizes objects and people still exist, even when they are not physically visible
- Imitates adult's actions, e.g., bangs a drum with a rattle, after observing an adult complete the action
- Engages in simple pretend play, e.g., pretends to drink tea from a pretend tea cup, pretends to feed baby doll with toy bottle, uses a toy block as a phone, pretends to talk to mama
- Recognizes familiar people and/or objects in photographs

### Strategies for interaction:

- Create an inviting environment for the child to explore; change materials and toys in the child's environment on a regular basis
- Interact and socially engage the child often throughout the day, e.g., use diapering and feeding times to playfully communicate with the child
- Follow the child's lead during play
- Provide toys and experiences that have a variety of colors, textures, sounds, and smells

### Strategies for interaction:

- Respond enthusiastically when the child demonstrates new uses for objects he or she has discovered
- Play with the child often; follow his or her lead
- Imitate the child during play, e.g., hold up a pretend phone to ear
- Name objects and people found in the child's environment

**Standard:** Children demonstrate the understanding of concepts, experiences, and ideas through symbolic representation.

**16 months to 24 months:** Children demonstrate the beginning of symbolic thinking as they start to label objects in everyday life. Children also use more complex social interactions and engage in imaginary play to make sense of the world around them.

**21 months to 36 months:** Children use their ability to label and think symbolically to engage in increasingly complex social interactions, exploration, and play. Children use these skills to recreate experiences, problem-solve, and explore relationships and roles.

**During this age period:**

**Indicators for children include:**

- Pretends one object is really another by using substitution, e.g., a napkin for a baby's diaper
- Finds objects after they are hidden in close proximity
- Engages in pretend play with familiar objects and experiences, e.g., places baby doll in stroller and pushes the stroller
- Identifies or names his or her drawings, e.g., points to scribble and says, "mama and dada"
- Communicates labels to familiar objects and/or people, e.g., says "dog" when seeing four-legged animals

**Indicators for children include:**

- Assigns roles to peers while engaged in imaginary play
- Builds in sequencing while engaged in play, e.g., beginning, middle, and end
- Communicates descriptors of people or objects that are not present, e.g., says "My mommy has blue eyes"
- Projects feelings and words onto stuffed animals, e.g., "The horse is sad"
- Takes on different adult roles during play and uses appropriate mannerisms, e.g., pretends to be the teacher and speaks in a more adult-like voice, while pretending to read a book to students

**Strategies for interaction:**

- Engage and play with the child; follow the child's lead
- Narrate the child's play, e.g., "Are you taking the baby for a walk to the store?"
- Repeat words that child is attempting to attach meaning to, e.g., say, "yes, baby," as the child points to a picture of a baby
- Encourage and praise the child as he or she shares accomplishments

**Strategies for interaction:**

- Interact with the child during pretend play and follow his or her lead
- Ask open-ended questions while playing with the child in order to expand on thoughts and language
- Continue to label and narrate actions, objects, and experiences for the child
- Encourage the child to use objects in creative ways to help problem-solve, e.g., using a blanket as an apron, when aprons are all being used by other children

# Real World Story

Jocelyn, 34 months old, is playing with a doll house. Her caregiver, Lauren, sits near her but does not engage with her. Jocelyn picks up a doll and moves her around in the play kitchen. She says, "Come eat!" Jocelyn puts down the doll, and grabs a smaller doll from the upstairs part of the dollhouse. She moves the doll into the kitchen and says, "Here, Mommy." Jocelyn picks up the "Mommy" doll and places them both on the table. She turns toward Lauren, and hands her a third doll. Jocelyn points to that doll and says, "Daddy." Lauren says, "Do you want me to be the Daddy?" Jocelyn nods her head and turns her attention back to the doll house. She points to the play living room and says, "Daddy sit." Lauren places the doll on the miniature couch. Jocelyn grabs both her dolls and places them next to the "Daddy" doll. She then leaves the dollhouse and walks over to the table right next to the dollhouse where there is a play cash register. She presses a few buttons, and then it opens. Jocelyn takes out a few pretend bills and hands one to Lauren. Lauren says, "Thank you! I am going to buy a piece of fruit." Jocelyn bends down, and reaches toward the basket that is under the table. She picks out a pretend apple and hands it to Lauren. She then takes the bill out of Lauren's hand and puts it back into the register.

THIS EXAMPLE HIGHLIGHTS Jocelyn's developing cognitive skills. Jocelyn first uses the dolls as a representation of her family and has them take on specific roles. She is able to demonstrate delayed imitation and symbolic thought by performing two sequences that she is familiar with: dinner and sitting together as a family. She uses language to indicate what is being represented and to engage her caregiver in play, when she hands Lauren the "Daddy" doll and again when she hands Lauren the pretend bills. Jocelyn also demonstrates her memory skills as she bends down automatically to get Lauren a piece of pretend fruit without having to look around. Finally, Jocelyn shows a basic understanding of quantity as she hands Lauren one piece of fruit, after Lauren communicates that is what she wants.

**This story also relates to:**

**domain 1: Social & Emotional**
**Relationship with Adults, p. 39**

**domain 3: Language**
**Social Communication, p. 75**

**domain 4: Cognitive**
**Concept Development, p. 93**
**Memory, p. 97**
**Quantity & Numbers, p. 117**

**approaches to learning**
**Creativity, Inventiveness, & Imagination, p. 147**

# Creative Expression

Creative expression refers to how children use music, movement, building, and play to express themselves. From a very early age,

children demonstrate an interest in sounds, colors, objects, and textures. In infancy, children engage in sensory exploration; they mouth different objects to learn about them, and use their hands to feel and move them. During this period, children are aware of different sounds and are often heard cooing and babbling. Near one year of age, children are able to clap their hands and move their bodies to music and rhythm. Children also engage in interactive play such as peek-a-boo, and can imitate simple finger plays. They may also finger paint and play with different sensory materials such as water, sand, or play dough.

During their second year, children creatively express their thoughts and feelings through symbolic play, also known as pretend play.

Children will imitate a familiar role, such as pretending to be the mommy by feeding and rocking a baby doll. Children engage in movement activities that incorporate whole body movements to express emotion. For example, children will roll around on the floor if they are being playful, or squeeze caregivers when excited. Increased hand-eye coordination and attention help them engage in art activities such as scribbling and brush painting for longer periods of time.

Children also take an eager interest in building things. Younger children will simply stack a few objects; as they near 36 months of age, children will have been building increasingly complex structures, and these activities are often intertwined with pretend play.

**Standard:** Children demonstrate the ability to convey ideas and emotions through creative expression.

**Discover how Creative Expression is related to:**

**Standard:** Children demonstrate the ability to convey ideas and emotions through creative expression.

| **During this age period:** | **Birth to 9 months:** Children build the beginnings of creative expression through everyday interactions with their caregivers. | **7 months to 18 months:** Children increasingly engage with their caregiver(s) and show enjoyment in activities and interactions that focus on music, movement, building, and play. |
|---|---|---|

### Indicators for children include:

- Actively explores sensory objects in the environment
- Participates in interactions with caregiver(s), e.g., observes, smiles, coos
- Demonstrates interest in sounds, songs, music, and colors
- Listens and moves to music
- Manipulates objects, e.g., turns, shakes, bangs

### Indicators for children include:

- Enjoys familiar songs and word rhymes
- Begins to use symbolic play while interacting, e.g., holds a play phone to ear and has a "conversation" with grandma
- Begins to stack large blocks with or without support
- Participates in music activities by performing some accompanying hand movements
- Engages in art activities such as coloring or finger painting

### Strategies for interaction:

- Provide the child with choices for exploration; follow his or her lead
- Interact in a meaningful manner with the child throughout the day
- Make music part of every day; sing songs with the child
- Provide toys and activities that encourage movement, e.g., a toy drum, a tunnel to crawl through

### Strategies for interaction:

- Sing songs with the child and model any accompanying gestures
- Provide the child with different options for creating artwork
- Demonstrate enjoyment of music and actively participate with the child as he or she sings
- Encourage the child to explore different materials while playing

**Standard:** Children demonstrate the ability to convey ideas and emotions through creative expression.

| **16 months to 24 months:** Children continue to show increasing ability as they engage with their caregiver(s) in music, movement, building, and play activities. | **21 months to 36 months:** Children initiate and engage in music, movement, building, and play activities to interact with others and express ideas, feelings, and emotions. | **During this age period:** |
|---|---|---|

### Indicators for children include:

- Imitates basic movements during an activity, e.g., places bean-bag on head
- Engages in more intricate pretend play, e.g., uses a toy banana as a phone
- Enjoys using instruments while listening to music
- Builds by using different objects and materials, e.g., lines up cars, stacks small boxes
- Enjoys breaking down what he or she has built, e.g., knocking over a stack of blocks with his or her arm
- Creates artwork; focuses and enjoys the process rather than the final product

### Indicators for children include:

- Selects movements that reflect mood, e.g., jumps up and down when excited
- Identifies and discusses characters that are meaningful to him and her
- Builds increasingly complex structures and expands upon them, e.g., uses smaller blocks to build taller towers, lines up materials and adds other components to create a "road" leading up to the tower
- Uses imaginary play to cope with fears, e.g., puts monster in a closet
- Plays dress-up and invites caregiver(s) to play along

### Strategies for interaction:

- Provide props and instruments that the child can use during music and movement
- Engage in conversations about what the child is creating during art activities
- Display the child's artwork where he or she can see it and show it off
- Provide play experiences both outdoors and indoors

### Strategies for interaction:

- Expose the child to music and dance from different cultures and backgrounds
- Provide opportunities for pretend play in which the child can dress up as various characters, e.g., a cowboy, firefighter, or princess
- Encourage the child's creative expression by genuinely praising his or her efforts
- Participate in the child's play; dress up, pretend, and play with the child

# Real World Story

Melissa is 36 months old and is sitting with her peers during circle time. Joy, their child-care provider, is reading them a story they are familiar with, "We're Going on a Bear Hunt." Melissa is moving her hands to match the movements of the children in the book. Each time Joy stands up to act out a part of the book, all the children scramble to their feet to copy the actions. Melissa squeals with excitement and moves her body to represent crawling through grass, wading through a river, stomping in mud, and crawling through a cave. Once Joy gets to the part of the story that encounters the bear, Melissa and the children automatically move from a crawling position to a full stand, and begin to run in place as fast as they can. Melissa makes the pretend movement of running up the stairs, and then flops herself to the ground to act out the part where the children crawl under their bedcovers. As Melissa lies on the floor, giggling, one of her peers has tripped over another child. Melissa stops laughing and observes Joy comfort the child. Joy then returns to her spot and places the book behind her and says, "Okay, boys and girls, show me how you can stand on your feet." Melissa and the older children stand up; some children are still giggling and moving around. Melissa is standing quietly, waiting for

Joy. Joys says, "It is time to whisper and walk quietly over to the table; we don't want to wake the sleeping bear." The children then follow Joy as she tiptoes and keeps one finger over her lips. Melissa follows along, whispering "hush," and works hard to keep her balance as she tiptoes.

THIS EXAMPLE HIGHLIGHTS how language, cognitive, and physical development can all come together in one activity. Melissa is working on her receptive language and early literacy development as she follows the story and completes the accompanying movements. She is learning to express feelings and actions with her body, thereby developing creative expression. Melissa is also working on her spatial-awareness, gross-motor, and perceptual development as she moves her body in different ways, while having to remain aware of others around her. Melissa also demonstrates behaviors that indicate the awareness of feelings in others, as she stops laughing to observe a peer who has gotten hurt.

**This story also relates to:**

| domain 1: Social and Emotional |
| --- |

Relationship with Peers, p. 47
Empathy, p. 51

| domain 2: Physical |
| --- |

Gross Motor, p. 57,
Perceptual, p. 65

| domain 3: Language |
| --- |

Receptive Communication, p. 79
Early Literacy, p. 87

| approaches to learning |
| --- |

Creativity, Inventiveness, & Imagination,
    p. 147

# Logic & Reasoning

Children use imitation, cause and effect, and trial and error to build their logic and reasoning skills. Children learn these skills through everyday interactions with their caregivers. From very early on,

children discover that their own actions and behaviors have an impact on the behaviors and actions of people and objects. For example, children cry to signal needs and their caregivers respond to meet these needs. Once they are able to grasp and manipulate objects, children use imitation to interact with objects. For example, children may bang a toy drum immediately after observing their caregivers perform the same action. They learn about cause and effect by repeating the same actions over and over in order to produce the same results. For example, they repeatedly drop an object off an elevated surface to engage their caregivers in picking it up, as well as to hear the sound it makes when it falls.

During the second year, children's logic and reasoning skills improve as they use trial and error to solve problems. They have a better understanding of patterns of, and relationships between, the impacts of certain behaviors on objects and people, and begin to use these patterns in different ways. For example, children may use different ways to move objects; at first, they may use their hands, and then attempt to use another body part, such as their feet or head. At 24 months of age, children know that selective actions affect different objects and people in different ways. They understand the intended function of objects and, by 36 months of age, can communicate cause and effect, and problem-solve more effectively.

**Standard:** Children demonstrate the ability to use knowledge, previous experiences, and trial and error to make sense of and impact their world.

**Discover how Logic & Reasoning is related to:**

**Standard:** Children demonstrate the ability to use knowledge, previous experiences, and trial and error to make sense of and impact their world.

| **During this age period:** | **Birth to 9 months:** Children begin to build awareness and use simple actions to have an impact on objects and people in their environment. | **7 months to 18 months:** Children combine specific actions to have an effect on people and objects, and interact with people and objects in different ways to discover what will happen. |
|---|---|---|

### Indicators for children include:

- Uses nonverbal and verbal communication to generate responses from caregiver(s), e.g., coos, reaches, laughs
- Repeats similar actions on different objects, e.g., shakes stuffed animal in the same manner as a rattle to hear noise
- Looks for and finds an object that has fallen

### Indicators for children include:

- Uses objects as they are intended, e.g., pretends to drink milk out of a toy bottle
- Attempts different ways to move an object to see what happens, e.g., rolls a ball gently at first and then hard to see how fast and far it will move
- Uses different actions for an intended result, e.g., builds tower with blocks and then knocks it down with his or her hand, repeats the activity and uses his/her head to make the tower tumble
- Imitates adult's body language and simple actions, e.g., puts hands on hips or pretends to brush crumbs off table

### Strategies for interaction:

- Participate in social interactions the child initiates
- Provide interesting toys that can be easily manipulated, e.g., squeezed, shaken, rattled
- Play turn-taking games with the child, e.g., peek-a-boo

### Strategies for interaction:

- Allow the child to explore a variety of toys.
- Narrate the child's play: "Look how hard you rolled that ball"
- Allow the child freedom to try new things with some support
- Demonstrate and explain the relationship between objects and/ or people

**Standard:** Children demonstrate the ability to use knowledge, previous experiences, and trial and error to make sense of and impact their world.

| | | **During this age period:** |
|---|---|---|
| **16 months to 24 months:** Children understand how purposeful and select actions can affect different objects and people. Children also begin to connect objects and ideas based on repetition and experience. | **21 months to 36 months:** Children have a greater understanding of causation and can predict and choose specific actions to attain a desired result. Children also begin to apply past experiences and knowledge to form ideas. | |

### Indicators for children include:

- Repeats actions over and over to cause desired effect, e.g., dumps out a bucket and refills it with objects
- Starts to predict the consequence of simple and familiar actions, e.g., knows that flipping the light switch will either turn on or turn off the light
- Understands functionality of objects, e.g., mop is used to clean the floor
- Begins to understand certain behaviors are related to certain contexts, e.g., behaves differently at childcare than at home

### Indicators for children include:

- Recognizes actions and objects and can generalize meaning, e.g., sees someone opening an umbrella and can attribute that to the fact that it may be raining
- Makes a prediction of what will happen next in a sequence of events
- Applies past experiences to new situations
- Expresses cause and effect in certain situations, e.g., "I fell down and now I have a boo-boo."

**Causation**

refers to the relationship between cause and effect. Children understand that specific actions and words affect objects and people in their environment in predictable ways.

### Strategies for interaction:

- Provide the child with experiences that demonstrate cause and effect, e.g., objects that produce sounds after performing a specific action
- Show and explain what objects do and what they are used for during everyday interactions
- Narrate sequencing found in everyday interactions, e.g., "First we will fill the tray with water, then we will put toys in it."

### Strategies for interaction:

- Use stories and everyday conversations to ask the child to predict what may happen next
- Use child's past experiences to bridge to new experiences, e.g., using chalk on the sidewalk to scribble instead of crayon and paper
- Discuss and experience cause and effect in everyday interactions, e.g., add food coloring to the water table and show the child what happens

# Real World Story

Quinn is 13 months old and is playing in his playroom. He is standing against a small table, playing with a toy kitchen. He is attempting to place a plastic cup inside the pretend kitchen's oven, but he is not able to shut the oven door. He becomes frustrated and throws the plastic cup on the ground. His mother, Kate, is sitting close by. She leans forward and picks up the plastic cup. She scoots closer to Quinn and says, "I can see you are frustrated; let me see if I can help you." She looks in the oven, points inside, and says, "Quinn, there is a plate in there. Can you hand me the plate?" Quinn looks at Kate, then looks at where she is pointing. He leans in and grabs the plate. He hands it to Kate, who says, "Now try," and hands him the plastic cup. Quinn moves the cup around and eventually gets it to fit inside the oven. Kate smiles, claps, and says, "You did it!" Quinn smiles, bounces up and down, and then claps his hands. He squeals with delight and opens the oven again. He grabs the cup and attempts to put it back in. He moves the cup around a few times until he gets it to go back in the oven. Once again he is successful. Kate claps and says, "Again! You did it again!" Quinn squeals, bounces up and down, and claps his hands.

THIS EXAMPLE DEMONSTRATES how logic and reasoning begins in the first year. Quinn is having a hard time figuring out how to get the cup into the oven. He is persistent but easily frustrated. Quinn does not have the expressive language to say "help," but demonstrates this need by throwing the cup. His mother reads this signal and helps him regulate by acknowledging his feelings and helping him solve the problem. Quinn demonstrates his receptive language skills by finding the plate and handing it over to his mother. He uses trial and error to accomplish his goal, as he moves the cup around until he gets it to fit. Kate supports Quinn's self-concept development, as she encourages him and genuinely shares in his accomplishment. Quinn's positive reaction demonstrates his enthusiasm and joy in reaching his goal.

**This story also relates to:**

<span style="background-color:orange">**self-regulation**</span>

**Emotional Regulation, p. 17**
**Attention Regulation, p. 21**

<span style="background-color:blue">**domain 1: Social & Emotional**</span>

**Attachment Relationships, p. 31**
**Self-Concept, p. 43**

<span style="background-color:blue">**domain 3: Language**</span>

**Receptive Communication, p. 79**

<span style="background-color:green">**approaches to learning**</span>

**Persistence, Effort, & Attentiveness, p. 143**

# Quantity & Numbers

Children have an early awareness of number concepts. In infancy, children begin to learn about quantity through interactions with their environment and their caregivers. They begin to demonstrate the understanding of "more" through body language. For example, children may lean their head forward during mealtimes to indicate they want more food. Or, they may use body language and gestures to communicate to a caregiver to repeat an enjoyable action. Young children are also aware that more than one object exists in their environment. This is indicated when children release one object to reach for another. While they are not able to determine the number of objects, they have established the foundation for the concept of "more."

Once children have the ability to verbally express themselves, they have the ability to communicate the concept of more. They may sign or say "more" during interactions. Children also use imitation and language to explore number concepts. For example, children may imitate their caregivers and say, "one, two," when engaged in play. They will not be able to match the correct quantity of objects with their words until closer to 36 months, but use imitation and play skills to build **number sense**. Around 24 months of age, children have the ability to identify very small quantities without having to count them. They can look at a small number of objects and determine if there are "one," "two," or "three" of them. By 36 months, children use language to demonstrate an understanding of progressive number order and can identify "more" when comparing groups of objects.

**Standard:** Children demonstrate awareness of quantity, counting, and numeric competencies.

**Discover how Quantity & Numbers is related to:**

**self-regulation**

**Attention Regulation, p. 21**

**domain 2: Physical**

**Perceptual, p. 65**

**domain 3: Language**

**Social Communication, p. 75**
**Expressive Communication, p. 83**

**Standard:** Children demonstrate awareness of quantity, counting, and numeric competencies.

| During this age period: | **Birth to 9 months:** Children are developing an understanding of quantity and number concepts as they explore and interact with objects and people in their everyday environment. | **7 months to 18 months:** Children begin to identify that there are different quantities of objects and people, and may attempt to match quantities with numbers through the use of words, symbols, and gestures. |
|---|---|---|

**Attributes** are characteristics or properties of objects, such as shape, color, or size.

### Indicators for children include:

- Uses sounds and body language to signal for more, e.g., begins to cry when finishing a bottle of milk and is still hungry
- Explores objects one at a time, e.g., mouths one toy and drops it to grab hold of another, or drops toys in a container
- Expresses desire for more through facial cues, sounds, gestures, and actions, e.g., bangs, opens mouth, points, reaches
- Holds on to more than one object at a time, e.g., grasps a rattle in one hand, and reaches for block

### Indicators for children include:

- Understands the concept of "more" in regard to food and play; signs or says, "more"
- Imitates counting, e.g., climbs stairs and mimics "one, two"
- Uses nonverbal and verbal communication to express more complex concepts, e.g., "some," "again," "all done"
- Begins to understand descriptive words and apply attributes to people, e.g., points to himself when asked, "Who's a big boy?"
- Begins to use number words to label quantities, even though incorrect

### Strategies for interaction:

- Respond promptly and thoughtfully to the child when he or she signals needs
- Provide multiple objects and/or materials for the child to explore
- Encourage the child to explore objects one by one, e.g., hand them one block and say "one"
- Play with the child; count out loud as you hand him or her objects
- Engage in simple finger plays with the child

### Strategies for interaction:

- Model counting and sequencing for the child through everyday interactions, e.g., "First, we are going to sit you in your chair, and then we are going to put your bib on."
- Narrate as the child gestures, e.g., "so big" as he or she raises arms in air
- Sing songs that incorporate numbers

**Standard:** Children demonstrate awareness of quantity, counting, and numeric competencies.

| **16 months to 24 months:** Children recognize various quantities of objects and people, and begin to accurately match number words to the correct amount. | **21 months to 36 months:** Children use language to demonstrate a basic understanding of number representation and quantity identification. | **During this age period:** |
|---|---|---|

### Indicators for children include:

- Communicates amount of familiar objects, e.g., sees two apples and says, "two"
- Uses nonverbal gestures to demonstrate understanding of quantities, e.g., holds up two fingers to express two of something
- Begins to use "one," "two," and "three" to identify very small quantities without counting them
- Begins to use descriptive words for people in a more complex fashion, e.g., "he big," "she baby"

### Indicators for children include:

- Understands progressive number order, e.g., recites the number series to ten
- Begins to count objects; may count objects twice and/or skip numbers
- Begins to identify quantity comparison, e.g., "Which group has more blocks?"
- Assigns meaning to numbers; understands the concept of a small number or big number, e.g., communicates "wow" when a caregiver shares that he or she is 35 years old
- Uses descriptive words when communicating about others, e.g., "She ran fast," "He is short," "Look how far away I am"

### Strategies for interaction:

- Use numerical concepts in everyday activities, e.g., "Would you like one cracker or two?"
- Use teachable moments, e.g., ask the child to pass you one crayon from the pile during art
- Acknowledge the child's attempts to use numerical concepts in everyday interactions, e.g., "Yes, you are right, you are two years old!"

### Strategies for interaction:

- Recognize that experience and exposure are factors that influence whether or not the child is familiar with numbers
- Engage the child in participating in word rhymes that incorporate numbers and math
- Use descriptive words when interacting with the child, e.g., "You are so tall!"

### "More" and "Enough"

While quantity and numbers are complex concepts in the school-age period, children build the foundation for these in the first three years. Children begin to experience quantity and numbers through everyday interactions with caregivers. The first mathematics-related concept that children seem to learn is that of "more." They are able to communicate that they need more of something, such as more milk, more food, more cuddles, or repetition of certain experiences, such as singing, or winding up the jack-in-the-box. Children are also learning the concept of "enough." They communicate no, or stop, to express when they want caregivers to end what they are doing, or when they are done with their milk or meal. At times, children adamantly communicate these concepts within their interactions. They may cry, shake their head, grab, push away, or pull caregivers toward them. Caregivers should respond accordingly to best meet children's needs.

# Science Concepts & Exploration

Children learn about science concepts through the exploration of both their indoor and outdoor environment. They use all of their five senses to take in new information and actively learn about their world.

**Standard:** Children demonstrate a basic awareness of and use scientific concepts.

As newborns, children use observation to make sense of their surroundings. They track objects with their eyes, enjoy looking at faces, and notice high-contrast patterns. When they begin to grasp objects, children explore object properties. They may mouth, shake, drop, bang, or manipulate the objects in order to learn about them. They soon discover that they enjoy an action they have performed upon the object and take great delight in repeating it over and over. For example, they drop objects onto the ground and hear a loud bang. They repeat this to continue hearing the banging noise. In this example, children are learning about cause and effect and trial and error.

By 24 months, children are active scientists, trying to discover as many new things as possible. They are interested and curious about living things, and begin to ask simple questions about nature. They enjoy spending time outside, and pick up objects to observe, such as leaves, pebbles, or flowers. They are also capable of identifying characteristics of living things they are familiar with. For example, they may share that their cat "meows." Children are also engaging in the beginning processes of classification as they can identify similar properties among objects and people. Children begin to apply past experiences to new ones, and begin to predict outcomes of certain actions.

**Discover how Science Concepts & Exploration is related to:**

**Standard:** Children demonstrate a basic awareness of and use scientific concepts.

| During this age period: | **Birth to 9 months:** Children use social interactions along with their five senses to discover and explore the world around them. | **7 months to 18 months:** Children use all of their five senses to purposefully collect and act on information received through interactions with their environment. |
|---|---|---|

**Indicators for children include:**

- Observes people and objects in his or her environment
- Engages in social interactions with familiar adults
- Actively explores new objects found in the environment, e.g., mouths, pats, grasps
- Uses all of his or her senses to explore and discover new things, e.g., reaches out to touch rain or snow

**Indicators for children include:**

- Actively explores objects and experiences their properties through the different senses, e.g., color, texture, weight, taste
- Repeats actions that attracts his or her attention, e.g., drops object onto floor to hear the sound it makes
- Experiments with different textures found in the outside environment, e.g., runs fingers through dirt, crumbles dry leaves

**Strategies for interaction:**

- Create an inviting environment for the child to explore; change materials and toys in the child's environment on a regular basis
- Follow the child's lead during play
- Provide toys and experiences that have a variety of colors, textures, sounds, and smells
- Allow the child to explore his or her outdoor environment, e.g., go on stroller walks, have the child crawl on grass

**Strategies for interaction:**

- Provide opportunities for the child to explore and play outside
- Engage in conversations with the child about nature, animals, and other living things; introduce books that cover those topics
- Provide the child plenty of opportunities for sensory play, e.g., pudding, shaving cream, water, sand

**Standard:** Children demonstrate a basic awareness of and use scientific concepts.

**During this age period:**

**16 months to 24 months:** Children begin to use experimentation to interact and engage with their environment in different ways. In addition, a new, distinct interest in living things emerges.

**21 months to 36 months:** Children use their communication skills to indicate interests in observations, experiences, and engagement with the world around them. Children actively experiment with their environment to make new discoveries happen.

**Indicators for children include:**

- Shows interest in own body; may know names for certain body parts
- Begins simple categorizing, e.g., cats and dogs are animals
- Asks simple questions about nature
- Attempts new tasks during familiar activities, e.g., plays at the water table, and instead of using hands, tries to use head to make the water move
- Uses motion and sound to represent an observation, e.g., "snake, ssssss!"

**Indicators for children include:**

- Begins to identify characteristics of animals, e.g., "The dog barks"
- Identifies various attributes of objects, food, and materials, e.g., color, shapes, size
- Draws on past experience to describe and communicate about observations and experiences, e.g., knows what happens when one blows on a candle, discusses what happens to snow when the temperature is warmer
- Engages in processes to reach an outcome, e.g., mixes three different colors of paint to see what color emerges

**Strategies for interaction:**

- Provide opportunities for the child to engage in sensory play
- Talk to the child about different animals, their size, where they live, and what sounds they make
- Allow the child to explore flowers, insects, and other living things while outside

**Strategies for interaction:**

- Begin to ask the child "w" questions: what, where, when, and why
- Incorporate science and inquiry questions in the child's daily routine
- Provide activities and experiences that allow the child to problem-solve and reach conclusions, e.g., building, experimenting with changes from solids to liquids
- Create themes and activities that focus on nature, e.g., share with the child the life cycle of a butterfly through both books and real-life experiences

## The great outdoors!

Children learn through all of their senses, and what better place to engage all of those senses than the outdoors. There are many opportunities for children to see different animals, colors, and people. Children can experience different textures as they explore puddles, dried leaves, and flowers. They can feel raindrops and wind, and hear cars and trucks. These early experiences provide children with exciting and meaningful ways to learn about nature, science, and the community they live in. The outdoors is also a place where children are able to practice and master physical skills such as walking, running, jumping, and climbing. They experiment with throwing objects, such as a ball, and moving their bodies in different ways, such as spinning while they chase bubbles. Outdoor experiences provide children with positive outlets to expend energy, get messy, and learn about the world around them.

# Safety & Well-Being

In the first few years of life, children depend on their caregivers to keep them safe and healthy for proper development. Children are beginning to grow in their capacity to recognize potentially unsafe or unhealthy situations, but will need a lot of caregiver support. Children build this capacity by establishing trust in responsive and nurturing caregivers who are consistent in meeting their needs. Children also look to their caregivers to establish what is acceptable and what is not.

At birth, children are not completely defenseless. They enter the world with a set of reflexes designed to signal basic survival needs to caregivers.[88] As they grow, children become aware of their own bodies and their environment. They become purposeful in how they interact with their environment and actively practice all the new skills they develop. The challenging aspect is finding the right balance of active exploration and learning, and keeping children safe in their environment.

With new skills come risky behaviors that are developmentally appropriate. Children lunge forward with no regard for anything in their way, or pick up everything possible off the floor and place it in their mouths. Children do not have the ability to control their impulses, and will test safety limits that have been put in place by caregivers. Children's growing cognitive abilities help them process why safety rules are in place, along with building memory for what is allowed and what is not. While they may pay attention to safety rules, children still need constant supervision to stay safe.

**Standard:** Children demonstrate the emerging ability to recognize risky situations and respond accordingly.

**Discover how Safety & Well-Being is related to:**

**self-regulation**

Attention Regulation, p. 21
Behavior Regulation, p. 25

**domain 1: Social & Emotional**

Attachment Relationships, p. 31

**domain 2: Physical**

Self-Care, p. 69

**approaches to learning**

Confidence & Risk-Taking, p. 139

**Standard:** Children demonstrate the emerging ability to recognize risky situations and respond accordingly.

| During this age period: | **Birth to 9 months:** Children first rely on their natural reflexes to signal basic survival needs to their caregiver(s). Toward the end of this age period, an emerging awareness in their own bodies and trust in their caregiver(s) support children in meeting needs and protecting them in uncertain and potentially unsafe situations. | **7 months to 18 months:** Children's increasing physical abilities allow them to explore new ways of interacting with the environment around them. Motivated by these new skills, children take risks to explore and learn, and demonstrate through nonverbal and verbal communication trust in their caregiver(s) to keep them safe. |
|---|---|---|

**Social Referencing** is the term used to describe how young children take their cues from familiar others in deciding what emotions and actions are appropriate.

### Indicators for children include:

- Signals needs through reflexes and sounds, e.g., demonstrates rooting reflex when hungry, cries when uncomfortable
- Actively observes and explores environment
- Demonstrates interest in own body, e.g., stares at hands, mouths feet, pokes at belly button
- Uses physical movements to explore environment, e.g., reaching, sitting, rolling
- Demonstrates trust in caregiver(s), e.g., reaches for adult, comforted when soothed, looks for caregiver in novel situations

### Indicators for children include:

- Uses social referencing to assess uncertain situations, e.g., looks at a caregiver for social cues as to whether or not to proceed
- Actively climbs to reach for wanted objects during play
- Responds to cues from caregiver in uncertain and unsafe situations
- Hesitates and demonstrates caution in new and/or changing situations, e.g., stops crawling when reaches the edge of an uneven surface
- Responds to warnings and changes in tone of voice; needs assistance and redirection to stop unsafe behavior, e.g., looks up after hearing a stern "no" but does not necessarily stop the behavior or action

### Strategies for interaction:

- Meet the child's needs in a prompt and sensitive manner
- Respond thoughtfully when interacting with the child
- Provide a safe, child-proof environment, while providing constant supervision
- Soothe and comfort the child as needed, e.g., hold, cuddle, rock
- Interact with the child; sit on the floor with the child and engage in exploration and play

### Strategies for interaction:

- Use facial clues and gestures to communicate to the child in uncertain situations, e.g., nod head yes, and smile to encourage the child to crawl toward the new toy
- Establish boundaries and limits; remain consistent and firm
- Provide a safe, child-proof environment, while providing constant supervision
- Explain to children why certain rules are in place

**Standard:** Children demonstrate the emerging ability to recognize risky situations and respond accordingly.

| **16 months to 24 months:** Children begin to build a basic understanding of their physical limits and unsafe situations. Children are still motivated to interact and explore the environment with little regard to risks, and continue to rely on caregiver(s) to help manage their impulses | **21 months to 36 months:** Children will begin to demonstrate a limited ability to internalize what caregiver(s) communicates in relation to safety, rules, and well-being. Children continue to act upon impulses but begin to develop strategies to protect themselves in uncertain and potentially unsafe situations. | **During this age period:** |

**Indicators for children include:**

- Understands when "no" and "stop" is communicated through either words or gestures
- Responds to warnings and begins to change behavior accordingly, e.g., moves away from the outlet after caregiver communicates "no"
- Seeks comfort when fearful
- Imitates adults' actions during play, e.g., tells baby doll "no touch" when walking by the pretend stove

**Indicators for children include:**

- Pays attention to safety rules but still needs supervision to keep self safe
- Communicates to an adult if something is wrong, e.g., a peer is hurt or missing
- Remembers and begins to apply past experiences to future situations, e.g., walks carefully and slowly when there is snow on the ground
- Reminds younger peers of rules, e.g., holds hands with a younger peer while walking outside

**Strategies for interaction:**

- Provide a safe, child-proof environment, while providing constant supervision
- Model safe practices and behaviors for the child, e.g., do not stand on chairs when attempting to reach for objects
- Support the child in new situations; allow him or her time to warm up to new people, objects, and activities

**Strategies for interaction:**

- Provide constant supervision and guidance
- Talk with the child about unsafe situations and what he or she should do to get help
- Respect the child's expressed fears
- Establish boundaries and limits; remain consistent and firm

## *Keep In Mind*

Child development does not occur in isolation; children reach their developmental milestones within their social and cultural contexts. However, while "how the child develops" may look different, "what the child develops" can be observed in a more universal fashion. Below are some indicators that may warrant a discussion with the child's healthcare provider for closer examination.

☐ Does not display object permanence by 12 months of age

☐ Does not babble, point, or make meaningful gestures by 12 months of age

☐ Does not know the simple functions of common objects, e.g., a cup, telephone, by 24 months of age

☐ Does not engage in symbolic play by 36 months

## Keeping Children Safe

The concept of "No" is used often by caregivers in the first three years. "Don't touch," "Stop," "No hitting," are all part of daily interactions with toddlers. Young children are unable to control their impulses; therefore it is important for caregivers to have realistic expectations of children when it comes their understanding what is safe or what is unsafe. Safety in the first three years is very important, and caregivers work tirelessly to ensure that children are well taken care of and safe. During this period, constant supervision, consistent care, and redirection are what support children in staying safe. While children are building their cognitive capacities to understand what they can and cannot do, they are not able to control their actions. Caregivers often find themselves repeating the same words and actions over and over, and while it may be frustrating, young children need those constant reminders. Children's ability to remember is still developing, and they rely heavily on structure, routines, and consistency to build their understanding of safety and well-being.

# Approaches to Learning

Children are born ready to learn, and the first three years are the time when children develop the habits in how they approach and explore their world.[89] Depending on the quality of their early experiences, children either form healthy or unhealthy attitudes toward learning.

Children's earliest relationships, cultural and societal contexts, and individual influences directly impact their approach and feelings about learning. Children who have nurturing and secure relationships with meaningful people in their lives demonstrate a positive attitude toward learning. They tend to be interested in exploring the world around them and share delight in discovering new things. These positive "approaches" set the foundation for children's learning styles and better prepare them to learn when they enter school.[90]

Healthy and secure relationships are the foundation for all areas of development, and children's approaches toward learning are no different. Children who feel safe and trust in their world can explore their world with increasing confidence. They feel supported by their caregivers and are more willing to try new things and take appropriate risks while they explore. Caregivers who engage with children and support them in discovering their world and solving tasks foster positive feelings of mastery and self-esteem. These positive feelings are important to how children engage with peers, handle new tasks, build attention, and form their own self-concept.

Culture influences how children learn, and shapes what learning qualities and experiences are encouraged and appreciated. Some cultures may prefer persistence and attentiveness over curiosity or risk-taking. Some children may not

be encouraged to get messy while exploring their outdoor environment. Their caregivers may believe that children who are neat reflect positive parenting. Different cultures may encourage children to experience activities through all of their senses, and are accepting if children do get messy.[91] These differences are important to keep in mind. All children can benefit from environments that promote learning in positive and meaningful ways. Most important, however, is to nurture the qualities that children are most comfortable with and respect the cultural wishes of their families.

Individual influences such as temperament and developmental abilities also contribute to how children learn.[92] Some children learn by observing their surroundings. They seem to "take in" all the information they are receiving. Other children will jump right in and physically explore everything. Neither approach is right or wrong. Instead, they highlight the unique personality traits of each child. Caregivers should be sensitive to children's temperament and ensure that they interact and encourage children in ways that best match their unique style. Developmental abilities also influence the ways children learn. For example, some children may not have the ability to physically walk around their environment but can still benefit from the same experiences as children who can. Caregivers can modify the environment to meet the needs of all children. Therefore, it is important to recognize children's natural abilities and provide support when needed.

All children are naturally interested in the world around them. The attitudes or "approaches" children have toward learning are dependent on their everyday experiences. Caregivers can support the development of healthy learning attitudes by providing enriching environments, encouraging and supporting children in problem solving, and genuinely sharing in their achievements. Caregivers are children's first and most important teachers as they set the foundation for future learning and development.

# Curiosity & Initiative

Children are born with a natural interest in the people and objects found in their environment. After all, they are seeing things for the first time! Children use all of their senses to take in all this new information and use their developing skills to make sense of what they are seeing, hearing, tasting, smelling, and touching. Secure relationships build the trust that children need to exercise their curiosity. Caregivers who consistently respond to children's signals model positive and responsive interaction. Children use these early models to build the self-confidence they need to initiate exploration, attempt new experiences, and engage with objects and people.

As children develop new skills, exploration becomes increasingly purposeful and meaningful. When children are able to sit up, they have a different perspective on their world. They can look around in different directions and reach for objects. Their developing fine motor skills help children satisfy their curiosity through mouthing, grasping, and manipulating objects. Mobile children begin to choose what objects they want to engage with, and can move near caregivers to initiate contact. With the emergence of language, children are able to express their preferences and can use simple words to initiate, engage, and maintain social interactions in order to learn about their world. By 36 months, children will ask questions during interactions. They appear to be curious about everything and need to understand how the world works. Children also become increasingly interested in and curious about their peers, and continue to broaden out their participation in new experiences.

**Standard:** Children demonstrate interest and eagerness in learning about their world.

**Discover how Curiosity & Initiative is related to:**

**Standard:** Children demonstrate interest and eagerness in learning about their world.

| During this age period: | **Birth to 9 months:** Children are discovering the world through exploration and social interaction. Children react with special interest to new objects, people, and experiences. | **7 months to 18 months:** Children's newly acquired physical control allows them to explore and initiate interactions in a more purposeful and meaningful manner. |
|---|---|---|
| **Curiosity** is an instinctive drive to learn about the world. Children are naturally inquisitive, and use exploration to learn. | **Indicators for children include:**<br><br>▪ Observes the environment and people; tracks a toy as it moves from one point to another<br><br>▪ Shows interest in him- or herself, e.g., gazes at hands, places feet in mouth<br><br>▪ Actively explores new objects found in the environment, e.g., touches, pats, and mouths<br><br>▪ Attempts to initiate interaction with others, e.g., smiles, reaches for a caregiver<br><br>▪ Participates in joint attention with caregiver(s), e.g., focuses on the same object | **Indicators for children include:**<br><br>▪ Demonstrates an interest in new objects by manipulating and turning the object<br><br>▪ Uses familiar objects in new ways, e.g., places a toy basket on head<br><br>▪ Moves toward a new activity by crawling or walking<br><br>▪ Begins to demonstrate preferences for objects and/or materials, e.g., selects a book to read when given options<br><br>▪ Engages familiar adults in meaningful interactions, e.g., points to favorite toy, brings a book over to be read |
| | **Strategies for interaction:**<br><br>▪ Create an inviting environment for the child to explore; change materials and toys in the child's environment on a regular basis<br><br>▪ Create opportunities in which the child can explore his or her outside environment; talk with the child about what is happening<br><br>▪ Provide a variety of sensory materials, e.g., books that incorporates different textures, toys that shake or rattle<br><br>▪ Respond thoughtfully and promptly to the child's attempts for interaction | **Strategies for interaction:**<br><br>▪ Provide an environment that allows the child to pick and choose what activity or toys he or she would like to play with<br><br>▪ Provide materials and objects that can be used in more than one way<br><br>▪ Encourage activities that are meaningful to the child, e.g., a favorite book or a favorite song |

**Standard:** Children demonstrate interest and eagerness in learning about their world.

| 16 months to 24 months: Children become increasingly curious about new experiences and activities that include peers and adults; they begin to interact and seek involvement with others. | 21 months to 36 months: Children demonstrate initiative by participating and maintaining engagement in novel experiences. Children use observation, communication, and inquiry to make sense of these experiences. | **During this age period:** |
| --- | --- | --- |

**Indicators for children include:**

- Demonstrates an interest in new activities and a willingness to try out new experiences
- Engages in active exploration in new environments, e.g., walks over to a toy shelf in an unfamiliar home or classroom
- Initiates play with others, e.g., a grandparent, sibling, or teacher
- Experiments with different ways to use materials and objects

**Indicators for children include:**

- Observes other children in play
- Enjoys accomplishing simple goals, e.g., completing a puzzle, blowing a bubble
- Asks questions while interacting with others, e.g., "why," "what," "how"
- Participates in a broader array of experiences, e.g., outdoor jungle gyms, art projects

**Strategies for interaction:**

- Provide the child with different choices for play and activities throughout the day
- Encourage the child to participate in a new activity but do not force
- Model positive interaction with the child throughout the day
- Encourage the child to notice what other children are doing, e.g., "Annie and Steve are making a pizza out of their play dough"

**Strategies for interaction:**

- Encourage the child when he or she is trying something new and/or taking reasonable risks; remain sensitive to the child's temperament and provide support as needed
- Engage in conversations with the child and answer their questions clearly and honestly
- Build upon the child's interest by introducing books and other activities
- Extend interactions by introducing novel or alternate ways to use materials, objects, or toys

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## More About Curiosity

Curiosity can be described as a natural interest that humans have in the world around them. Cultural context plays a large part in nurturing children's curiosity. The term "curiosity" is not universal, and cultures vary in the degree to which they value and promote curiosity. However, what is universal is children's inquisitive nature.[93] They use all of their senses to take in information, and enjoy discovering new objects and actions. This interest in the world provides children with opportunities to interact and engage in meaningful experiences. They use communication to inquire and seek answers. Children point, gesture, and use sounds to indicate questioning. Once verbal language emerges, they start to combine words to ask simple questions. Caregivers nurture this natural emotion; however, depending on cultural beliefs, how they nurture and support curiosity looks different. The most important take-away is that children's interest should be acknowledged and encouraged to support future learning.

# Problem Solving

Children build the foundation for problem-solving skills through nurturing relationships, active exploration, and social interactions.

In infancy, children learn that their actions and behaviors have an effect on others. For example, children cry to signal hunger to their caregivers; in turn, their caregivers feed them. Caregivers' consistent responses to children's communication attempts teach children the earliest forms of problem solving. Children learn that they have the ability to solve a problem by completing certain actions. Children build this knowledge and translate it into how they interact and problem-solve in future situations.

Children discover that their actions and behaviors also have an impact on objects. They learn that certain actions produce certain results. For example, children may bang a toy over and over as they notice the sound that it makes. This behavior is intentional and purposeful; children learn that they have the ability to make something happen. As they get older, children will experiment with different ways to solve problems, such as moving puzzle pieces in different ways to place them correctly. They will use trial and error to find solutions to the tasks they are working on, and use communication skills to ask or gesture for help from caregivers.

By 36 months, children are able to decrease the amount of trial and error they use when solving problems. Their cognitive skills are maturing and they are able to use logic and reasoning when working through challenges. Increased attention allows children to focus for longer periods of time when working through challenges. Children still depend on their caregivers for help, but are likely to attempt problem solving on their own before asking someone for help.

**Standard:** Children attempt a variety of strategies to accomplish tasks, overcome obstacles, and find solutions to tasks, questions, and challenges.

**Discover how Problem Solving is related to:**

**Standard:** Children attempt a variety of strategies to accomplish tasks, overcome obstacles, and find solutions to tasks, questions, and challenges.

**During this age period:**

**Birth to 9 months:** Children are building the foundation for problem solving through active exploration and social interaction.

**7 months to 18 months:** Children begin to discover that certain actions and behaviors can be solutions to challenges and obstacles they encounter. Children also recognize how to engage their caregiver(s) to assist in managing these challenges.

### Indicators for children include:

- Focuses on getting a caregiver's attention through the use of sounds, cries, gestures, and facial expressions
- Enjoys repeating actions, e.g., continues to drop toy from high-chair after it is picked up by a caregiver or sibling
- Communicates the need for assistance through verbal and/or nonverbal cues, e.g., pointing, reaching, vocalizing

### Indicators for children include:

- Repeats actions over and over again to figure out how an object works
- Begins to recognize that certain actions will draw out certain responses, e.g., laughing and smiling will often result in an adult responding in the same manner
- Attempts a variety of physical strategies to reach simple goals, e.g., pulls the string of a toy train to move it closer or crawls to get a ball that has rolled away

### Strategies for interaction:

- Respond thoughtfully and promptly to the child's attempts for attention
- Provide interesting and age-appropriate toys and objects for exploration
- Engage and interact with the child frequently during the day

### Strategies for interaction:

- Demonstrate how to try things in different ways and encourage the child to do the same, e.g., using a plastic bucket as a drum
- Gently guide the child in discovering and exploring, while allowing him or her enough independence to try new things
- Respond thoughtfully and promptly to the child's communication attempts

> **Standard:** Children attempt a variety of strategies to accomplish tasks, overcome obstacles, and find solutions to tasks, questions, and challenges.

| **16 months to 24 months:** Children have an enhanced capacity to solve challenges they encounter through the use of objects and imitation. Children may take on a more autonomous role during this stage, yet, reach out to caregiver(s) in most instances. | **21 months to 36 months:** Children begin to discriminate which solutions work, with fewer trials. Children increasingly become more autonomous and will attempt to first overcome obstacles on their own or with limited support from caregiver(s). | **During this age period:** |
|---|---|---|

**Indicators for children include:**

- Imitates a caregiver's behavior to accomplish a task, e.g., attempts to turn a doorknob
- Increases ability to recognize and solve problems through active exploration, play, and trial and error, e.g., tries inserting a shape at different angles to make it fit in a sorter
- Uses objects in the environment to solve problems, e.g., uses a pail to move numerous books to the other side of the room
- Uses communication to solve problems, e.g., runs out of glue during an art project and gestures to a caregiver for more

**Indicators for children include:**

- Asks for help from a caregiver when needed
- Begins to solve problems with less trial and error
- Refuses assistance, e.g., calls for help but then pushes a hand away
- Shows pride when accomplishing a task
- Uses increasingly refined skills while solving problems, e.g., uses own napkin to clean up a spill without asking an adult for help

**Strategies for interaction:**

- Validate and praise the child's attempts to find solutions to challenges
- Narrate while assisting the child in figuring out a solution, e.g., "Let's try to turn the puzzle piece this way"
- Provide the child with opportunities to solve problems with and without your help; minimize the possibility for the child to become frustrated
- Respond to the child's communication efforts

**Strategies for interaction:**

- Follow the child's lead and pay attention to his or her cues when assisting in a task
- Share in the child's joy and accomplishments
- Model and narrate problem-solving skills through play
- Provide the child with blocks of uninterrupted time to work on activities
- Be available for the child and recognize when he or she needs guidance

# Real World Story

Sebastian, who is 25 months old, is engaged in a fine-motor activity provided by his caregiver. He is holding large, plastic tweezers and is attempting to use them to pick up big, fuzzy balls off a plastic plate and move them into a plastic cup. He is holding the plastic tweezers in one hand, and holds the plate steady on the table. He repeatedly tries to use one hand, but cannot pinch the tweezers tightly enough to pick up one of the balls. Sebastian pauses, looks around, and picks up the balls with his thumb and forefinger. Holding the plastic tweezers in one hand and the ball in the other, Sebastian places the ball in the tweezers and then pinches it closed. He moves it over to the plastic cup and drops it inside. He then grabs another fuzzy ball and places it in the tweezers. Again, he pinches it tightly and transfers it to the cup. Sebastian engages in the same method until all the fuzzy balls on his plate are now inside his cup. Once he is done, he empties out the cup onto the plate and starts all over. After successfully completing the process again, he holds out his full cup toward his caregiver, Maria. She sees him, smiles, and gives two thumbs up. Sebastian grabs his cup and walks over to her. He hands Maria the cup and walks away from the table.

THIS EXAMPLE HIGHLIGHTS how children use physical trial and error to solve problems. Sebastian is not successful in his initial attempts to pick up the small objects with his tweezers. However, he pauses to think about possible ways to work on this problem, and then changes his process. Instead of pinching the tweezers to grab the ball, he places the ball in between the tweezers and then pinches it closed. This is easier for him, as he is still developing the fine motor skills necessary to be able to complete this task. Once he realizes he is successful in accomplishing his goal, he engages in this task until he has finished placing every ball on his plate into the cup. He then repeats the activity all over again. Sebastian's ability to successfully problem solve builds his self-confidence. Maria's positive acknowledgment of his accomplishment further supports his social and emotional development. A positive self-concept and increasing self-confidence is very important for Sebastian's future learning and overall healthy development.

## This story also relates to:

**self-regulation**
**Attention Regulation, p. 21**

**domain 1: Social & Emotional**
**Self-Concept, p. 43**

**domain 2: Physical**
**Fine Motor, p. 61**
**Perceptual, p. 65**

**domain 4: Cognitive**
**Logic & Reasoning, p. 113**

# Confidence & Risk-Taking

Children build their confidence through their relationships with nurturing and responsive caregivers. Caregivers who are attuned to children's needs and respond consistently and promptly, nurture feelings of self-worth in children. Children learn to feel that they are important, and they learn to trust. This builds the self-confidence that is needed for them to take on developmentally appropriate risks. These risks include developmental tasks such as crawling, walking, playing, trying new experiences, and building relationships with peers.

At first, children use their confidence to take on physical risks. Between nine and 12 months of age, children experiment with moving objects in different ways, such as pushing and throwing. They also master skills such as crawling and walking. They attempt and work on these skills in the context of secure relationships. Once children accomplish skills, caregivers can share in children's excitement, further building their confidence and sense of mastery for new skills to come. Around 18 to 24 months of age, they begin to take on emotional risks. They begin to play farther and farther away from their caregivers, but will still check in as needed. Between 24 and 36 months, children initiate interaction with peers, and attempt to tackle challenges on their own before reaching out to caregivers.

Caregivers play an important role in fostering confidence in children. They need to be sensitive to children's temperament and comfort levels in new situations. Children can become overwhelmed with their growing abilities and may display frustration or fear at times. When caregivers are sensitive to children's temperament, feelings, and comfort level, children feel safe and supported, and confidently engage in new experiences at their own pace.

**Standard:** Children demonstrate a willingness to participate in new experiences and confidently engage in risk-taking.

**Discover how Confidence & Risk-Taking is related to:**

**self-regulation**
Emotional Regulation, p. 17
Behavior Regulation, p. 25

**domain 1: Social & Emotional**
Attachment Relationships, p. 31
Self-Concept, p. 43

**domain 2: Physical**
Gross Motor, p. 57
Fine Motor, p. 61

**domain 3: Cognitive**
Spatial Relationships, p. 101
Safety & Well-Being, p. 125

**Standard:** Children demonstrate a willingness to participate in new experiences and confidently engage in risk-taking.

| During this age period: | **Birth to 9 months:** Children begin to build confidence through the everyday interactions they experience with their caregivers. These interactions form special relationships, which in turn build the "secure base" for children to take risks and try new experiences. | **7 months to 18 months:** Children begin to use their developing confidence to engage in simple risk-taking behavior as they physically explore their environment in the context of a secure relationship. |
|---|---|---|

**Secure base behavior** is described as children's ability to use their primary caregiver(s), as both a physical and emotional base while exploring their environment. This behavior emerges between seven and 18 months of age.

### Indicators for children include:

- Cries and/or uses body language to signal and get needs met, e.g., averts gaze, arches back
- Explores new objects with eagerness, e.g., squeals and/or squeezes a toy
- Uses different approaches for accomplishing a simple task, e.g., reaching, kicking, vocalizing
- Attempts new skills on his or her own while "checking in" with a familiar adult, e.g., a new crawler begins to move, then turns toward the caregiver for reassurance before crawling away

### Indicators for children include:

- Begins to take great risks with little regard for danger, e.g., lunging off a couch to reach for an object
- Becomes more intentional and confident when playing and interacting, e.g., grabs, pushes, throws
- Uses trial and error to solve a problem, e.g., tries different angles when attempting to place a shape in a shape sorter

### Strategies for interaction:

- Provide nurturing and consistent care in order to build the child's self-confidence
- Create an environment where the child has access to age-appropriate toys
- Use nonverbal and verbal cues to encourage and support the child as he or she engages in a new activity, e.g., smile, nod, clap
- Provide support in new situations, while allowing the child room to explore new objects

### Strategies for interaction:

- Provide an interesting and safe environment for the child to explore; remain watchful and intervene when needed to keep the child safe
- Recognize that the child needs time to adjust to new skills, e.g., the child can suddenly become frightened by his or her expanding capabilities
- Encourage the child to try new ways of doing things

**Standard:** Children demonstrate a willingness to participate in new experiences and confidently engage in risk-taking.

| **16 months to 24 months:** Children increase their confidence in the context of a secure relationship, and begin to engage in more complex tasks and seek out new situations. | **21 months to 36 months:** Children use their confidence to begin taking emotional risks in addition to physical risks, with support from their caregiver(s). | **During this age period:** |
|---|---|---|

### Indicators for children include:

- Plays and explores farther away from attachment figure; continues to "check in" for reassurance, e.g., plays across the room and glances toward caregiver, then re-engages in playing
- Seeks out assistance and reassurance from familiar others
- Demonstrates confidence in abilities and achievements, e.g., cheers or claps when accomplishing a goal such as completing a simple puzzle
- Joins in a new activity after cautiously observing at first

### Indicators for children include:

- Attempts to independently resolve social conflicts without automatically running to the caregiver, e.g., tries to retrieve an object that was taken away by a peer
- Demonstrates eagerness and determination when problem-solving during new tasks, e.g., the child who pushes the caregiver's hand away and refuses help until he or she is ready to ask for it

### Strategies for interaction:

- Remain available for the child during play; use reassuring cues to encourage the child to explore, e.g., smile, nod, and clap
- Provide materials and activities that are challenging but not frustrating, e.g., large blocks, a simple puzzle
- Be sensitive to the child's temperament; recognize that the child may need some time to engage in a new experience; allow the child to observe until he or she is ready to take part

### Strategies for interaction:

- Validate the emotions the child is feeling, e.g., "I can see you are upset that your toy was taken away from you."
- Model thoughtful and polite behavior through everyday interactions
- Provide the child with opportunities to problem-solve on their own, intervening only when the child appears to become frustrated and/or asks for help

## A Perspective on Risk-Taking

The term "risk-taking" can be a bit unsettling for caregivers. Caregivers work hard to ensure that children always remain safe and secure. However, developmentally appropriate risk-taking is a positive and natural behavior in children. When children feel trust in their caregivers and feel confident in their own abilities, they take on the necessary risks to learn new skills. With caregivers' support and encouragement, children attempt to master new skills and, when they are successful, build feelings of pride and self-worth. Risk-taking refers not only to physical risks such as crawling and walking. Risk-taking also refers to the emotional risks that children take through their relationships with others. For example, a 12-month-old takes on an emotional risk when he or she relies on another person, different from their caregiver, to provide care. These are important risks children need to take to develop healthy social relationships in the future.

# Persistence, Effort, & Attentiveness

Children use sensory exploration and social interaction to learn about their world. While young children do not have the capacity to attend to objects or people for very long periods of time, they are building this skill with early experiences. Children demonstrate an initial interest in their world by simply observing. They focus on faces, high-contrast patterns, sounds, and eventually, specific objects. As they get older, children start to physically explore their environment. They use their hands to twist, shake, and move objects. They find delight in repeating actions that they enjoy, such as shaking a rattle or banging a toy drum. Engagement in these experiences promotes the development of persistence, effort, and attentiveness.

After 12 months of age, children become increasingly focused on completing simple tasks. For example, they may sit for brief periods of time, drop objects into a bucket, dump them out, and then repeat the entire process over and over again. Children also start to become very persistent when trying to accomplish a goal. They do not have the language or the regulatory capacity to control their emotions and will act out in frustration when they encounter challenges. Caregivers are there to support children through this process and encourage them to keep trying, while helping them problem-solve along the way. While children's ability to remain focused is increasing, they are still easily distracted. Caregivers can support children's learning by setting up an enriching learning environment that promotes interaction and minimizes disruptions.

**Standard:** Children demonstrate the ability to remain engaged in experiences and develop a sense of purpose and follow-through.

**Discover how Persistence, Effort, & Attentiveness is related to:**

**Standard:** Children demonstrate the ability to remain engaged in experiences and develop a sense of purpose and follow-through.

**During this age period:**

**Birth to 9 months:** Children observe, explore, attend and interact with the world around them.

**7 months to 18 months:** Children begin to become more persistent in interacting with people, exploring objects, and accomplishing tasks. While their ability to sustain attention increases, they are still easily distracted by other objects and events in the environment.

**Persistence** is the ability to see a process through in order to accomplish a particular goal. Children demonstrate persistence when they work through challenges to complete tasks and/or actions.

**Indicators for children include:**

- Establishes and sustains eye contact with caregiver(s)
- Focuses attention on sounds, people, and objects
- Repeats interesting actions over and over
- Indicates preferences by using nonverbal cues, e.g., turning head, kicking feet

**Indicators for children include:**

- Participates in back-and-forth interactions, e.g., plays peek-a-boo with an adult
- Repeats activities over and over, e.g., successfully inserts all the shape sorter's pieces, dumps them out, and starts again
- Begins to attempt assisting in self-help activities, e.g., feeding, grooming
- Demonstrates preferences, e.g., gestures to the bean bag and says "no" when presented with something else

**Strategies for interaction:**

- Engage and play with the child often
- Provide interesting and age-appropriate toys and objects for exploration without overstimulating the child; limit the number of toys, colors, and sounds found in the environment
- Acknowledge and respond thoughtfully to the child's communication efforts

**Strategies for interaction:**

- Share in the accomplishments of the child; encourage him or her throughout the process of working through tasks
- Engage and play with the child on a daily basis
- Follow the child's lead when engaging in activities
- Allow the child to help in self-help activities when he or she demonstrates an interest
- Acknowledge when the child demonstrates a preference, e.g., "You want the blue cup, here it is." Or "I can see that you want to read a book, but now it is time to eat."

**Standard:** Children demonstrate the ability to remain engaged in experiences and develop a sense of purpose and follow-through.

| **16 months to 24 months:** Children increase their ability to remain focused on goal-oriented tasks. At this stage, persistence is evidenced by the process the child engages in to discover how to accomplish the goal, instead of by the end result. | **21 months to 36 months:** Children can attend to tasks for longer periods of time, and their ability to persist in increasingly difficult tasks increases. In addition, children are now able to attend to more than one event in their environment; this skill enables them to stay focused even when there are distractions. | **During this age period:** |
|---|---|---|

| **Indicators for children include:** | **Indicators for children include:** |
|---|---|
| ▪ Focuses for longer periods of time on activities<br><br>▪ Engages for longer periods of time when trying to work through tasks, e.g., fits puzzle pieces together<br><br>▪ Repeats experiences he or she enjoys, e.g., says "more" after reading his or her favorite book<br><br>▪ Demonstrates preferences for activities, e.g., reads with a caregiver, plays at the sand table, prefers to sit by certain caregivers | ▪ Makes choices based on preferences, and at times, in opposition to adult choices, e.g., "No milk, want juice"<br><br>▪ Attempts to try a difficult task for an increasing amount of time<br><br>▪ Practices an activity many times in order to master it, even if setbacks occur<br><br>▪ Shows interest in completing routine tasks independently, e.g., zips up coat, puts on shoes |

| **Strategies for interaction:** | **Strategies for interaction:** |
|---|---|
| ▪ Provide the child with different manipulatives that he or she can explore independently, e.g., puzzles, peg boards, books<br><br>▪ Celebrate the child's accomplishment in a genuine manner<br><br>▪ Offer support and guidance if the child becomes frustrated when playing; respond promptly if the child calls for assistance<br><br>▪ Recognize the child's favorite activities and use them to identify other toys and materials that he or she will be interested in | ▪ Allow the child to make certain choices throughout the day<br><br>▪ Provide the child with blocks of uninterrupted time to work on activities<br><br>▪ Support the child in building attention by extending interactions, e.g., adding a new experience to the current interaction<br><br>▪ Assess how to best support the child in completing complex tasks; take into account varying abilities of each child<br><br>▪ Provide the child with a small amount of responsibility, e.g., setting the cups out for snack time or holding the door for peers |

# Real World Story

Ava is 13 months old. She is sitting in her play room, placing blocks, one by one, back into a basket. She remains engaged in this particular activity until she puts all of the blocks back in where they belong. After she is done, she walks over to the corner of the playroom and attempts to move her push toy away from the wall. Her mom, Liz, is sitting on the floor, observing her. Ava pushes the cart forward; unfortunately, this action just moves the cart into the wall. She tries the same action and gets the same result. Ava stops, kneels down, and looks at the buttons on the cart. She stands up and again attempts to move the cart by pushing it forward. After hitting the wall once again, Ava shakes the cart and grunts. She looks at her mom and points at the cart. Liz moves close to Ava and says, "Let's try moving it this way." Liz places her hands over Ava's and guides her in moving the cart backward. Ava is not yet steady on her feet, so walking backward is extremely challenging. Ava falls. Liz stops and says, "Mommy is going to turn it around for you." Liz turns the cart around, and Ava stands up. Ava walks behind the cart and places herself in the correct position to push the cart forward. She moves the cart and smiles. Liz claps her hands and says, "You did it, my big girl!" Ava continues to walk forward, successfully pushing the cart as she moves.

IN THIS EXAMPLE Ava demonstrates her ability to accomplish two tasks. As Ava places all the blocks back in the basket, she shows how she is able to attend for a brief period of time by putting all of the blocks away. Ava demonstrates the beginning of number concept and quantity as she reaches back each time for another block until there are no more. The second task that Ava engages in highlights how she attempts to solve a challenge repeatedly to achieve her goal. While she is not able to turn the push cart on her own, she tries a few times before communicating for help. Liz supports Ava's emerging abilities by placing her hands over Ava's to guide her. However, she recognizes that Ava is not quite ready, and moves the cart around so Ava can push it successfully. Once Ava is successful, Liz shares in her accomplishment.

**This story also relates to:**

**self-regulation**

**Attention Regulation, p. 21**

**domain 1: Social & Emotional**

**Attachment Relationships, p. 31**
**Self-Concept, p. 43**

**domain 2: Physical**

**Gross Motor, p. 57**
**Fine Motor, p. 61**
**Perceptual, p. 65**

**domain 4: Cognitive**

**Quantity & Numbers, p. 117**

# Creativity, Inventiveness, & Imagination

Children are active learners when exploring their environment. They first observe the world around them. They pay attention to sounds, colors, movement, and engage in interactions with their caregivers.

As they grow, children become more purposeful when engaging with their environment. They mouth and manipulate objects in order to learn about them. Children repeat actions in order to produce outcomes they enjoy, such as smiling at a caregiver to get a smile in return. Around one year of age, children become more creative in how they interact with people and objects. They start to experiment with new ways of doing things, and expand how they interact with objects and people. For example, at six months, children will hold a toy car in their hands and play by mouthing the object. At 13 months, children will hold the car and push it around the floor. This demonstrates growth in children's cognitive development, as they use objects the way they are intended to be used.

While this knowledge is not translated into innovative actions, it does set the stage for the development of creativity in the future.

Once children develop symbolic thought, their play becomes increasingly creative and inventive. Children will use objects in new and unexpected ways. They might place a basket on their head, or use their feet to move an object. Children begin to imitate adult actions and use objects to represent things they are familiar with. For example, children may pretend to drink milk out of a cup, or pretend to brush their hair with their hands. Children's developing language abilities also provide new ways to explore creativity. Children use language to pretend play, engage others in playful interaction, and express feelings and inventive ideas.

**Standard:** Children demonstrate the ability to use creativity, inventiveness, and imagination to increase their understanding and knowledge of the world.

**Discover how Creativity, Inventiveness, & Imagination is related to:**

**self-regulation**

**Attention Regulation, p. 21**

**domain 1: Social & Emotional**

**Emotional Expression, p. 35**
**Relationship with Adults, p. 39**

**domain 3: Language**

**Social Communication, p. 75**
**Expressive Communication, p. 83**

**domain 4: Cognitive**

**Symbolic Thought, p. 105**
**Creative Expression, p. 109**

**Standard:** Children demonstrate the ability to use creativity, inventiveness, and imagination to increase their understanding and knowledge of the world.

| During this age period: | **Birth to 9 months:** Children observe and interact with their surrounding environment, and begin to build the skills needed to manipulate objects and materials in different ways. | **7 months to 18 months:** Children first begin using most objects and materials for their intended use. As they develop, children begin to experiment with using these objects and materials in new and unexpected ways. |
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**Symbolic representation** refers to children's understanding of how an image or different objects can represent familiar objects.

### Indicators for children include:

- Observes materials, objects, and people with curiosity
- Actively explores new objects found in the environment by touching, patting, and mouthing
- Reaches for objects in close proximity
- Imitates sounds, movements, and facial expressions, e.g., moves body up and down after caregiver initially moves in that manner

### Indicators for children include:

- Imitates a peer's actions, e.g., bangs on table with cup
- Uses objects as they're intended to be used, e.g., rolls a toy car
- Spends increasing amounts of time exploring and learning about objects, e.g., will attend to a new toy for longer periods of time in order to make sense of it
- Begins to use objects in new and unexpected ways, e.g., places a basket on head
- Imitates actions of other people in a playful manner, e.g., wags finger at baby doll and says, "no, no, no"

### Strategies for interaction:

- Create an inviting environment for the child to explore; change materials and toys in the child's environment on a regular basis
- Follow the child's lead during play
- Engage with the child while he or she is exploring, e.g. demonstrate what the object or toy does
- Provide toys and experiences that have a variety of colors, textures, sounds, and smells

### Strategies for interaction:

- Respond enthusiastically when the child demonstrates new uses for objects he or she has discovered
- Provide materials that can be used in more than one way
- Change objects and toys frequently for the child
- Play with the child often and encourage creativity
- Imitate the child in a genuine manner during play

**Standard:** Children demonstrate the ability to use creativity, inventiveness, and imagination to increase their understanding and knowledge of the world.

| **16 months to 24 months:** Children begin to expand how they use creativity, imagination, and inventiveness through the use of symbolic representation in play. | **21 months to 36 months:** Children incorporate their use of creativity, inventiveness, and imagination in a more complex manner while they play, communicate, and problem-solve. | **During this age period:** |
|---|---|---|

### Indicators for children include:

- Pretends one object is really another by using substitution, e.g., using a toy car to brush hair
- Engages in pretend play with familiar objects and experiences, e.g., places baby doll in stroller and pushes the stroller
- Engages familiar adults in pretend play, e.g., hands the adult a play cup and pretends to pour "tea" into it
- Communicates in creative ways, e.g., plays with words by rhyming, chanting, or making up songs; uses movement and dance

### Indicators for children include:

- Expands use of objects and toys in new and unexpected ways; makes a road out of a few blocks; or substitutes an object for another to solve a problem
- Takes on familiar roles during play, e.g., cooks in the pretend kitchen
- Expresses inventive ideas to peers while playing; becomes directive, e.g., "You will be the police officer and you have to wear this."
- Creates an art project and creates a simple story to accompany the artwork

### Strategies for interaction:

- Play with the child; follow the child's lead
- Narrate the child's play, e.g., "Are you taking the baby for a walk to the store?"
- Encourage the child's creative and inventive attempts
- Actively engage with the child while playing; demonstrate enthusiasm and delight

### Strategies for interaction:

- Interact with the child during pretend play and follow his or her lead
- Ask open-ended questions while playing with the child in order to expand on thoughts and language
- Encourage the child to think of new ideas, e.g., "What do you think happens after the butterfly flies away?"

# Appendices

# Horizontal Alignment

## Where do the Illinois Early Learning Guidelines fit into the Fabric of Birth-to-Three Programs and Service Systems?

Horizontal alignment demonstrates how developmental guidelines are interconnected with the implementation of program components across a multitude of service systems. The Early Learning Guidelines are intended to support and enhance the ability of professionals to implement program curriculum, program standards, and child assessment. This implementation should be appropriate to the given service delivery type, model, or mechanism, through programs such as home visiting, child care, early intervention, and others. Rather than replace any of the essential components for implementing high-quality programs for infants and toddlers, which include curriculum, program standards, and assessments, the Guidelines fit into a coherent framework and are aligned with these essential components. All the elements are nested in a system of professional development. These guidelines were designed to support infant-toddler practitioners regardless of program setting. The developmental progression of what children should know and be able to do within stages outlined in this document are the same for all children, taking into consideration individual developmental needs and trajectory, and apply irrespective of the settings

in which children are being cared for. When all practitioners responsible for this care are operating from the same base of knowledge and speaking from the same "play book," we will be able to create a more unified language amongst those practitioners. This will help practitioners engage with the parents and each other around developmentally appropriate expectations for learning and growth in children.

## How Supports for Quality Programming Fit Together:

**Early Learning Guidelines** describe **what** children should know and be able to do along a continuum, including indicators to help show how development can be seen in everyday behavior. Guidelines, age descriptors, and indicators are based in the extensive child development research literature. The Illinois Early Learning Guidelines provide practitioners with a "line of sight" for development in the first three years of life, describing how children progress along the developmental trajectory.

**Curriculum** helps outline **how** practitioners go about teaching young children and supporting their development in their practices.

Curriculum is usually designed for the specific setting or program type (e.g., home visiting, center-based early care and education, etc.). Research-based curricula are rooted in the same developmental science underlying the growth and learning expectations described in these guidelines.

**Child Assessments** are a way to measure and understand **where** children are along a developmental continuum and can help to identify where developmental learning needs to be further supported. Assessments are also rooted in the same science describing what children should know and be able to do that informs this document. Specific assessments tie into some curricula, while other assessments can be used independently across curricula.

**Program Standards** describe required structural elements of specific programs that need to be in place to achieve stated program goals. These are frequently determined by program funders or models, and can include requirements such as specific ratios and/or group sizes, teacher/practitioner qualifications and/or training, and the use of a research-based curriculum. The Illinois Early Learning Guidelines can be

implemented in conjunction with program standards through requirements such as specific trainings on the guidelines.

## How Implementation Happens:

Implementation of the Illinois Early Learning Guidelines happens as practitioners become better acquainted with the knowledge of development in the first three years of life, using it as they do the work of program implementation, and ultimately interacting with young children and their families. To this end, **professional preparation and pre- and in-service training and technical assistance systems** play a critical role in quality implementation of these Guidelines. Training on the Guidelines must be tailored to professionals based on the context of the setting in which they are delivering services. The Guidelines must also be integrated into ongoing professional development and coaching at all levels, so that program leaders can support staff in embedding developmentally appropriate practices throughout all their work.
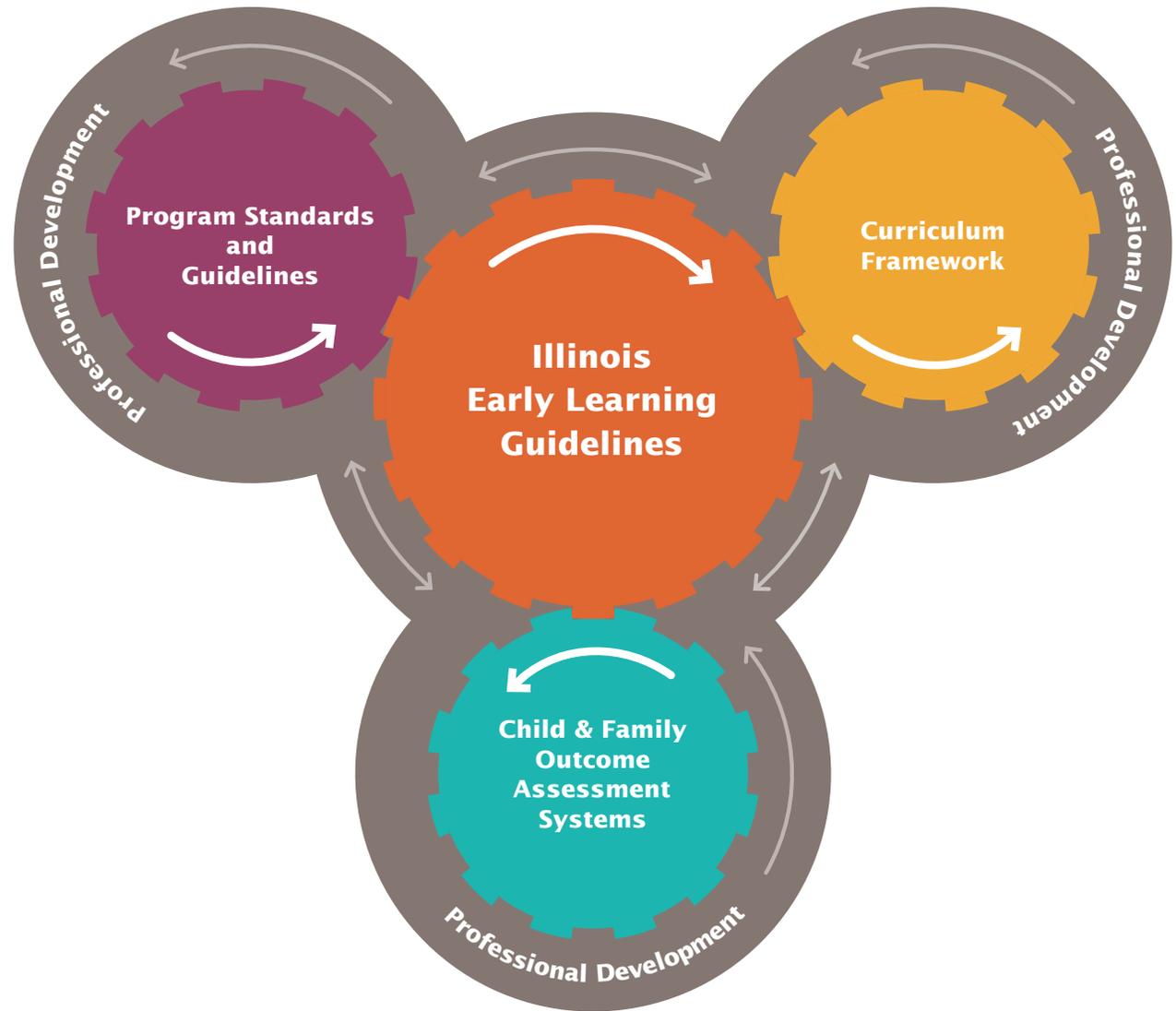
# Vertical Alignment

## Illinois Early Learning Guidelines: The Foundation for Later Learning

The growth that happens in the first three years of life lays the foundation for later learning; therefore it is important to consider the alignment of the Early Learning Guidelines with the learning standards and guidelines for children in older age groups. Vertical alignment refers to the process of ensuring guidelines for one age period are in sync with guidelines from the age periods that come before it and/or those periods that follow after. An understanding of the learning and growth from birth to three is fundamental to understanding and supporting the growth and development expected in all future age periods. In general, while the Standards and Guidelines for the younger ages are more oriented toward a developmental approach to learning and growth, standards for the K–12 period become more oriented toward academic or subject matter content.

Ensuring "vertical" alignment was a priority throughout the development of these Guidelines. This was done through content configuration and the careful consideration of age appropriate indicators. The content of the Early Learning Guidelines outlines growth and development from birth to age three and is the essential building block upon which all other development progresses.

Just as the domains of development cannot be fully detangled from one another, the

| Set of Standards | Includes: | |
|---|---|---|
| **Illinois Learning Standards** including new **Common Core Standards** *(Early Elementary through High School)* | Fine Arts<br>Foreign Language<br>Language Arts (Common Core K–12)<br>Mathematics (Common Core K–12) | Physical Development and Health<br>Science<br>Social Science<br>Social Emotional Learning |
| **Illinois Early Learning Standards for Kindergarten** *(Age 5 to 6)* | Fine Arts<br>Foreign Language<br>Language Arts<br>Mathematics | Physical Development and Health<br>Science<br>Social/Emotional Development<br>Social Science |
| **Head Start Child Outcome Framework** *(Age 3 to 5)* | Approaches to Learning<br>Creative Arts<br>Language Development<br>Literacy | Mathematics<br>Physical Health and Development<br>Science<br>Social and Emotional Development |
| **Illinois Early Learning Standards for 3- to 4-Year-Olds** *(Age 3 to 4)* | Fine Arts<br>Foreign Language<br>Language Arts<br>Mathematics | Physical Development and Health<br>Science<br>Social/Emotional Development<br>Social Science |
| **Illinois Early Learning Guidelines for Children Birth to Age 3** *(Birth to age 3)* | Approaches to Learning<br>Cognitive Development<br>Language Development, Communication, & Literacy | Physical Development & Health<br>Self-Regulation<br>Social & Emotional Development |

Career and College Readiness

Illinois Learning Standards
(includes Common Core)
*Early Elementary through High School*

Illinois Early Learning Standards for Kindergarten
*Age 5 to 6*

Illinois Early Learning Standards
*Age 3 to 4*

Head Start Child Outcome Framework
*Ages 3 to 5*

Illinois Early Learning Guidelines
*Birth to Age 3*

learning that happens within a specific domain of the early learning guidelines for children birth to three informs learning and development beyond any one other specific domain in the learning standards for later ages. For example, while there is a direct correlation between language development happening from birth to three years and the fulfillment of the Language Arts benchmarks outlined in the Illinois State Board of Education's standards for Kindergarteners, the acquisition of language that happens in the first three years of life allows for all learning that happens subsequently far beyond those specific benchmarks for Language Arts—including, at minimum, Math, Science, Social Studies, Fine Arts, and Foreign Language.

In Illinois, the guidelines and standards in place for children from three to four years old include the Illinois Early Learning Standards and the Head Start Child Outcomes Framework. Next, vertical alignment considers the Illinois Early Learning Standards for Kindergarten and the content areas covered by these standards, which are designed for children age five and six. Following these standards are the Illinois Learning Standards that cover elementary through high school and include Social Emotional Learning, and the Common Core Standards.

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# Glossary

**Alignment** refers to how these early learning standards relate to the sets of standards in place for older children. It also illustrates the interconnectedness of these standards within state systems and early childhood programs, producing healthy outcomes.

**Attachment figures** refer to a few, select caregivers, with whom children have an attachment relationship. Attachment figures can include parents, grandparents, relatives, and childcare providers.

**Attachment** refers to the bond between a child and their primary caregiver(s). The **secure attachment relationship** provides emotional and physical security for the child, and is the foundation for development and learning.

**Attending** refers to children's ability to remain focused on objects and people for brief periods of time. As they get older, children can attend, or remain engaged, for longer periods of time.

**Attention** is the ability to focus and concentrate on something in the environment.

**Attributes** are characteristics or properties of objects, such as shape, color, or size.

**Bio-behavioral shifts** are changes in behavior triggered by biological changes in the brain. These shifts allow children to grow and gain new skills.

**Biological rhythms** are patterns that occur within people's bodies. These include sleeping, waking, eliminating, and maintaining normal body temperature.

**Caregivers** are those who are primarily responsible for the care of the child. Caregivers include parents, grandparents, other relatives, and childcare providers.

**Causation** refers to the relationship between cause and effect. Children understand that specific actions and words affect objects and people in their environment.

**Code-switching** is the practice of moving back and forth between two languages within the same dialogue or conversation.

**Concept** refers to a general notion or an abstract idea formed in the mind, derived from specific occurrences. Early experiences form schemes, which form into concepts.

**Co-regulator** refers to the child's primary caregiver(s) who assist the child in achieving regulation through responses, interactions, and communication.

**Cultural variations** refer to the differences in beliefs, practices, and attitudes within the same cultural group.

**Culture** consists of the beliefs, behaviors, objects, and other characteristics common to the members of a particular group or society.

**Curiosity** is an instinctive drive to learn about the world.

**Delayed imitation** occurs when a child imitates an action after a significant amount of time has passed.

**Early literacy** encompasses the foundation for reading and writing.

**External states** refer to what the environment demands, such as sounds, actions, touch, or objects.

**Familiar others** are people who are a common presence in the life of the child. These may include family members, additional childcare providers, family friends, occasional caregivers, and neighbors.

**Fine motor** refers to the movement and coordination of small muscles, such as those in the hands, wrists, and fingers.

**Gaze aversion** is the child's purposefully looking away and avoiding eye contact.

**Gross motor** refers to the control and movement of large muscle groups such as the torso, head, legs, and arms.

**Habituation** refers to becoming accustomed to and not distracted by stimuli occurring in the environment.

**Homeostasis** refers to the infant's ability to remain regulated and form basic cycles of sleep, wakefulness, feeding, and eliminating.

**Intentional** or goal-directed behaviors are purposeful and deliberate. Intentional behaviors become increasingly complex as children grow.

**Internal states** refer to bodily conditions, such as hunger, discomfort, or tiredness.

**Joint attention** is the shared experience of looking at an object, person, or event, established by pointing, gesturing, or the use of language and/or vocalizations.

**Large muscles** refer to the muscles found in the arms and legs. Large muscle movements include crawling, kicking, walking, running, and throwing.

**Linguistic variations** are slight differences within a language and/or dialect.

**Object permanence** refers to children's understanding that objects continue to exist even though they can no longer be seen or heard.

**Object properties** are observable characteristics that define objects. Examples of object properties include: size, weight, shape, color, and temperature.

**Overstimulation** refers to excessive sounds, textures, temperatures, and sights that impede children's ability to make a meaningful connection with others or objects.

**Perceptual development** refers to taking in and interpreting sensory stimuli; it is through these stimuli that children learn about and interact with their environment.

**Persistence** is the ability to see a process through in order to accomplish a particular goal. Children demonstrate persistence when they work through challenges to complete tasks and/or actions.

**Pincer grasp** refers to grasping small objects with the index finger and thumb.

**Play** is integral in how children learn about and make sense of their world. Play is enjoyable and spontaneous, and children use play to discover, pretend, and problem-solve.

**Private speech** is children's use of self-directed language to guide, communicate, and regulate their behavior and emotions. While this self-directed language can be heard, it is not intended for others.

**Proximity–seeking behaviors** are those that the child uses to remain physically and emotionally connected to a caregiver, e.g., crawling over, making eye contact.

**Schemes** are early frameworks that organize information and help infants make sense of their environment.

**Secure base behavior** is described as the child's ability to use their primary caregiver(s) as both a physical and emotional base while exploring their environment. This behavior emerges between seven and 18 months of age.

**Self-concept** refers to the child's developing ability in realizing that one's body, mind, and actions are separate from those of others.

**Self-regulation** is the ability to regulate or control attention, thoughts, emotions, and behaviors.

**Sensory stimuli** are sounds, textures, tastes, sights, and temperatures found in children's environments.

**Separation anxiety** begins to occur between nine and 14 months and is expressed in tears, sadness, or anger when a child is physically separated from his or her primary caregiver(s).

**Small muscles** refer to the muscles found in the hands, fingers, feet, and toes.

**Social referencing** is the term for the way young children take their cues from familiar others in deciding what emotions and actions are appropriate.

**Soothe** is the action of providing comfort and reassurance.

**Spatial relationships** refer to where objects and people are located in space in relation to other objects and people, and how they move in relation to each other.

**Spontaneous** refers to an action that is not preplanned.

**Stimulation** refers to any number of sounds, textures, temperatures, tastes, and sights that impact a child's senses or development.

**Stimuli** are sounds, textures, tastes, sights, and temperatures found in children's environments.

**Stranger anxiety** is a normal part of development where children may cling to a familiar adult, cry, or look frightened when an unfamiliar person appears too soon or too close.

**Symbolic representation** refers to children's understanding of how an image or different objects can represent familiar objects.

**Telegraphic speech** is known as the "two-word" stage and is the use of combining two words to convey meaning, e.g., "Daddy go."

**Temperament** refers to the unique personality traits that children are born with and that influence how they interact with their environment and with others.

**Textures** refer to the different feel, appearance, and/or consistency of objects, surfaces, or substances.

**Toxic stress** is detrimental to the developing child and includes exposure to physical or emotional abuse, chronic neglect, extreme poverty, constant parental substance abuse, and family and community violence.

**Transitions** are changes in children's activities or locations. Transitions are hard for young children, as they may feel out of control. Therefore, it is essential caregivers prepare children for transitions.

**Trial and error** refers to a child's use of different strategies while attempting to solve a problem.

**Tummy time** is the time babies spend lying and playing on their stomachs while awake. This time is important for the development of head control and neck strength.

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Positive Parenting DuPage – Educational Materials and Information http://positiveparentingdupage.org/educational.php