



# Perceptual and Motor Development





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Some of the most memorable moments for **caregivers** who observe a child's early growth and development revolve around the new perceptual and motor skills **infants and toddlers** develop. When an infant starts to recognize the voice or face of a caregiver, they are using their developing perceptual skills to recognize faces or sounds. When an infant successfully rolls over by themselves or learns to sit up without help, they are demonstrating that they have gained increasing control over muscles in their neck, arms, torso, and legs to accomplish this new **gross motor skill**. Similarly, when a toddler develops the ability to grip a crayon to scribble their first piece of art, they are demonstrating greater control of the muscles in their hands and fingers, which is part of developing **fine motor skills**. These are just some examples of the remarkable and dramatic changes seen from birth to 36 months in the Perceptual and Motor Development domain.

**Perceptual Development** refers to children's ability to select, organize, and interpret information coming through their senses to understand their world. When talking about the senses, most people refer to touch, sight, smell, hearing, and taste. In addition, most humans also have a sense of balance and movement, which helps them establish awareness of where their body is in relation to other things (**proprioception**), and the ability to sense pain, hunger, and temperature (**interoception**). All of these sensory systems are part of perceptual development.

Infants and toddlers use perceptual information as part of their daily exploration and interactions with others. For example, children use various senses when recognizing faces (Reynolds & Roth, 2018), objects, voices, and the sounds of songs and chants; their senses of taste and smell when identifying their favorite foods (Beauchamp & Mennella, 2011; Forestell, 2017; Werner & Lipsitt, 1981); and their sense of touch when preferring a warm touch or soft clothes (Bremner & Spence, 2017; Johnson & Hannon, 2015; Piek, 2006). These early abilities to recognize consistent patterns and **routines** in their daily experiences help infants learn about the world around them (Bahrick & Lickliter, 2003).



A major aspect of perceptual development involves integrating information across the senses (Bahrick & Lickliter, 2003; Johnson, 2011; Watson et al., 2014). For example, an infant’s early experiences seeing and touching different shaped blocks help them recognize what size are the blocks, what sides are smooth, and which parts have corners. Integrating this information in their brain helps them later place the blocks correctly in a shape sorter. Similarly, a child who is blind or has low vision may integrate sound, touch, and proprioception to play with an object or find a peer during playtime.

**Motor Development** describes children’s growing ability to control and move their bodies. Motor development skills are often described as gross motor or fine motor skills. Children’s early gross motor development includes motor skills that involve the use of large limbs (these include head,

neck, arms, torso, and legs) or the whole body. Skills such as lifting their head while lying on their tummy, rolling over, sitting, crawling, and walking are common gross motor skills that children learn during infancy and toddlerhood. Each new gross motor skill provides new opportunities for learning. Changes in an infant’s posture, such as sitting, crawling, or standing, dramatically affect what an infant can experience in their **environment** (Franchak et al., 2018; Kretch et al., 2014; Soska et al., 2015). When children can move longer distances, either by scooting, crawling, walking or by using an **assistive technology device** (a device or tool that helps maintain, gain, or improve daily functioning, like a scooter board, wheelchair, or walker), their ability to move around expands their access to places, people, and things that are farther away (Adolph & Tamis-LeMonda, 2014).





Fine motor skills refer to the use of smaller muscles in the hands and fingers. Skills such as grasping with the whole hand or more precise grasping using only a few fingers to pick up something small, scribbling and drawing, and using eating utensils are all part of fine motor development. Early fine motor skills, such as grasping, allow infants to explore objects and learn about them: what they look like, sound like, feel like, and can do. Exploring can include behaviors like **mouth**ing, banging, dropping, and throwing. With more experience and time, infants use both their hands, together, to learn about the function of objects. For example, a child shaking

a plastic screw-top jar, as part of pretending to cook during play, may hold the jar with one hand and use their other hand to try to unscrew the lid. Gaining control of the muscles in the hands helps children with **activities of daily living** (the basic activities and routines that are part of everyday life). For example, when a child picks up a small piece of food to eat using their fingers, this action involves using fine motor skills. Infants and toddlers who need additional support with fine motor skills benefit from having available adapted materials or assistive technology devices, such as crayons or pencils with thicker grips, loop scissors, or books with thicker pages.

Although perceptual, gross motor, and fine motor development are often described separately, these three areas grow hand in hand. Motor actions are guided by and generate perceptual information. This means that motor actions like reaching, crawling, or walking are frequently guided by our senses. For example, an infant hears a nearby object make a sound (perceptual) and based on this sensory information, they turn their head and body (motor) to find where the noise is coming from. At the same time, the motor actions in this sequence provide a stream of new perceptual information. Once the infant turns around, they can look directly at the object and determine how close it is to them. The infant can then use their perceptual and fine motor skills together (also known as **hand-eye coordination**) to reach out and grasp the object.



## Perceptual and Motor Development During the First Four Months

Prior to birth, infants have had multiple months of sensory and motor experience in the womb (Johnson & Hannon, 2015; Piek, 2006). Kicking; arm movements; changes in position; and even reactions to sounds, tastes, and light are part of the roots of perceptual and motor development in the womb. After birth, infants continue to use their senses and movement to explore their social and physical environment. Infants' earliest movements, like spontaneously waving their arms and legs, turning their head from one side to another, or lifting their head while lying on their tummy, all help form the foundation for later motor skills like sitting, reaching, grasping, crawling, or walking (Adolph & Berger, 2007; Michel et al., 2013). These early sensory and motor experiences lay the groundwork for children's later perceptual and motor development skills.

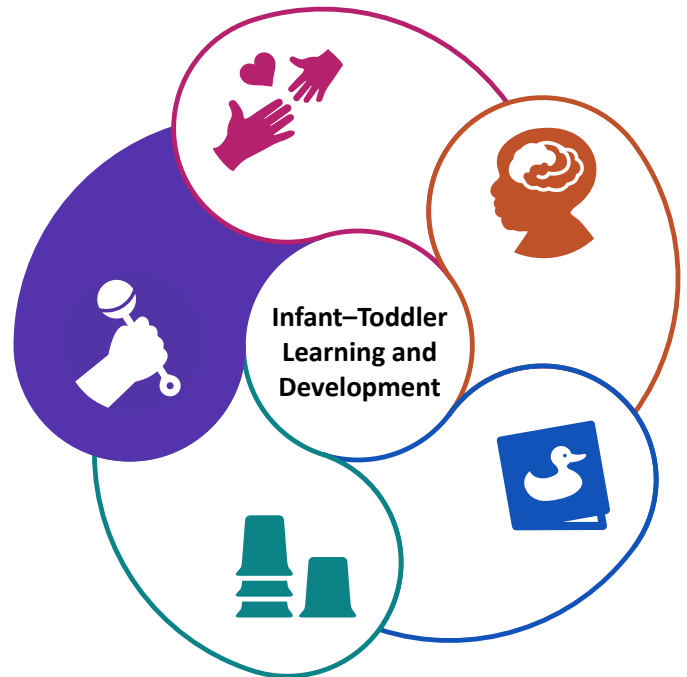




## Perceptual and Motor Development Is Connected to Development in Other Domains

Perceptual and Motor Development is connected to the other domains described in the Infant–Toddler Learning and Development Foundations (ITLDF). Infants and toddlers use all their available perceptual and motor skills as part of exploring and learning about everyday objects, engaging in play and other activities, navigating their environment, and interacting with others.

For language development, perceptual information related to sights and sounds is a crucial part of how children come to understand and say or sign words. Recent research has found that changes in motor skills, like learning to walk, are linked to learning new words (Gonzalez et al., 2019; Libertus & Violi, 2016; Walle, 2016). Although researchers are still investigating exactly how these changes are related, the new motor skills children learn may provide new opportunities for hearing and learning words. For example, when an infant can reach and grasp an object, a caregiver might talk about what the child is doing. For example, a caregiver might say, “You grabbed the block!” or “It looks like you are going to stack the cups,” or describe the object by talking about its shape or color, which can help support the infant’s language development (West & Iverson, 2017; West et al., 2022, 2023). Infants’ and toddlers’ changing perceptual and motor skills can also support social and emotional development. Changes in vision, hearing,



and even smell allow infants to recognize the familiar faces, soothing voices, and comforting smell of caregivers. Changes in children’s motor skills can lead to new ways of interacting with other people as part of everyday play. Recent research demonstrates that when infants learn to walk, they are more likely to move farther distances to interact with a caregiver and share an object or interact with them (Karasik et al., 2012; Walle, 2016). Similarly, fine motor skills can lead to interactions with peers and caregivers during daily activities and routines like eating or dressing, experiences that strengthen relationships with adults and peers.



Perceptual and motor development is also central in children’s exploration of the physical world, supporting learning and problem-solving. For example, an infant’s ability to perceive the different features of objects through their senses and active fine motor exploration (grasping, poking, banging) is important for learning about the properties of objects (like shape, quantity, size, and color) and their functions (Eppler, 1995; Soska et al., 2010). Everyday problem-solving and exploration of physical objects, using perceptual

and motor skills, support children’s cognitive development and approaches to learning. For example, when children explore “risky” situations, like sliding down a slide, they use their perceptual and motor skills together to decide whether it is safe to use the slide (Adolph et al., 1993). A toddler may look at and touch the slide and bang on it to learn whether it is firm and safe. They may also use their motor skills to figure out whether the slide is safe by choosing to scoot, crawl, or walk to get closer to the slide.





## The Context for Early Perceptual and Motor Development

**Relationships with caregivers have an important role in children’s perceptual and motor development.** Very early in development, some of infants’ most notable perceptual skills revolve around learning to recognize familiar caregivers’ faces, voices, or smells. Children’s consistent daily sensory experiences of caregivers, like seeing the faces of their closest caregivers often or hearing their voices repeatedly, allow children to quickly distinguish a stranger’s face or voice from that of a familiar caregiver’s. Using auditory information, they can even distinguish a familiar person’s voice from a voice they have not heard before.

Relationships with caregivers also shape children’s motor development. For children to confidently explore and practice their gross and fine motor skills, they need nurturing and

supportive caregivers who provide infants and toddlers a sense of emotional and physical safety while also allowing them to explore and practice their skills. For example, when children **cruise**, by taking early steps sideways while holding on to a stable object (like a table or couch), a supportive caregiver relationship can provide a safe environment and a secure base for the child to explore this new ability. When infants are starting to learn a new skill, caregivers protect them from risky situations. For example, a toddler who just learned to crawl and is curious to use their new gross motor skill to go up the stairs is guided by a caregiver to move away from the stairs because it is unsafe. Or the caregiver might take that opportunity to help the child practice going up the stairs, providing guidance on what to do and how, while being watchful and safe. Taking every opportunity to show children how to be safe creates further opportunities for children to build confidence in their own abilities. Caregivers also help shape children’s fine motor skills. For example, while participating in daily activities and routines like eating or dressing, caregivers provide verbal and physical support for children to successfully use their fine motor skills, such as showing them how to button their shirt or twist off a lid (Kaplan et al., 2023).

**The development of perceptual and motor skills is closely related to culture and language.** Part of learning spoken languages requires us to perceive and distinguish specific sounds. This is called **speech perception** (Werker, 2018). Different languages categorize and use different sounds. With increased exposure to their home language and the languages in their community, infants get better at perceiving the categories and sound patterns specific to the languages they most often hear. This process is called **perceptual narrowing**





(Byers-Heinlein & Fennell, 2014; Werker, 2018). For children who hear more than one language, this perceptual narrowing happens across all the languages they hear daily. In fact, the ability to notice the unique categories of sounds across all of their languages is a strength that can help them maintain their home languages while also learning a new language. This **cognitive flexibility** may contribute to future cognitive benefits (Bialystok, 2020; Brito et al., 2021) and can help children maintain a connection to various cultures and identities.

Differences in cultural norms and family practices mean that children’s daily experiences vary, which may influence the timing or the ways children learn and demonstrate their perceptual and motor skills (Sara et al., 2013). For example, family or cultural preferences for movement and exploration may be related to differences in when children learn different gross motor skills, like sitting or walking (Adolph & Hoch, 2019). Expectations and practices around feeding can also vary between families and cultures. Some families may prefer to have a caregiver feed the child during mealtimes, while other families may prefer to encourage self-feeding earlier in development. Cultures may also vary in the

types of eating utensil they use during mealtimes or whether they use their hands to eat. These cultural differences in experiences mean that children may not always demonstrate very specific skills that a majority culture expects (like using a fork if their home culture doesn’t encourage fork use). However, they may be demonstrating the foundational perceptual and motor skills in other ways (like showing greater precision when grasping a small item to stack to make a tower). It is important to be open and learn about each child’s family traditions and preferences to understand the whole child, particularly how their culture and experiences shape their development.

**An important influence on children’s perceptual and motor development is access to environments, objects, and activities where they can explore, practice, and develop skills.** Safe and supervised environments that support the use of certain gross motor skills like small stairs, slides, and uncluttered open spaces can help support children as they learn and practice. While having ample space to move is important, so is having toys or everyday objects that encourage movement throughout a play space (Hoch et al., 2019, 2024). Even in environments where space may be limited, spreading out toys and



objects that are attractive to infants and toddlers throughout the play space (like on a visible low shelf or uncluttered floor) can encourage infants and toddlers to move from one place to another. To use their fine motor skills on their own successfully, all children need access to items that are appropriate in size, like age-appropriately sized cups for drinking, toothbrushes, and clothing. Pencils, crayons, and paintbrushes can have thicker grips to make them easier for young children to use for scribbling, drawing, and painting. It is also important to note that infants and toddlers use their perceptual and motor skills to play with everyday objects that caregivers may not think of as toys, such as boxes, food, cups, pots, or pans—the list can go on (Herzberg et al., 2022)! Children’s play does not always have to be restricted to toys. Exposure to everyday items in a supervised environment can help children learn about an object’s properties and everyday use as part of perceptual and motor development.

**Lived experiences related to trauma or poverty can influence children’s physical and brain development**, which can have lasting effects on perceptual and motor development. **Malnutrition**, meaning lack of proper nutrition, can result in stunted physical growth and other

impacts on development. Recent research indicates that malnutrition is related to delays in achieving certain motor skills like sitting, crawling, and walking (Cavagnari et al., 2023). Consistent opportunities for healthy snacks and meals can help mitigate the impact of malnutrition for children experiencing poverty.

**Children from all socioeconomic backgrounds need access to a variety of opportunities to use their perceptual and motor skills.** These opportunities for learning happen daily in everyday environments and activities (during feeding time, walking outside on the sidewalk, shopping in the grocery store). Enriching opportunities for perceptual and motor learning can happen with everyday objects (boxes, cups, paper) and do not require elaborate toys or gadgets (Herzberg et al., 2022). The partnership between families and **infant–toddler care educators** (care educators) can be especially helpful in understanding the best ways to work together to ensure that, whether at **home** or in the **early learning and care setting**, infants and toddlers are encouraged to explore their environment for the benefit of developing motor and perceptual skills.



## Individual Differences in Perceptual and Motor Development

The foundations are written to illustrate the variability in children’s development, acknowledging that children learn and develop at different rates both within a domain and across domains of development. In addition, each child is unique and demonstrates their development in a variety of ways. In certain situations, some children may have diverse abilities that could benefit from alternate methods of demonstrating their development.

### Variability in Development

The skills that infants and toddlers learn as part of their perceptual and motor development are sometimes described as “milestones.” **Milestones** refers to a significant qualitative change in development or the attainment of a skill, such as crawling or walking (Adolph & Robinson, 2013). As most caregivers know, all children develop differently and at their own unique pace. Yet, it can sometimes be tempting to compare the timing and types of skills one child learns to other children. It is important for caregivers to know that there is a lot of expected **variability** for when children achieve milestones. Variability means that development is not one size fits all!

For example, an infant may learn to sit at a younger age than their peers. One child may crawl on their hands and knees while a different child prefers to scoot on their bottom and another child belly crawls using their arms and upper body to move from place to place. Some children may skip crawling altogether and begin walking once they can stand on their own.

Children vary in their perceptual and motor development. Their physical and biological characteristics, temperament, culture, and other unique life experiences all contribute to **individual differences** in children’s perceptual and motor development.

For caregivers, it is important to be aware that variability is common across children’s development and, in fact, expected. Knowing this, one can more fully support each child’s unique needs and development.





While variability in perceptual and motor development is expected for all children, there are cases where a child is specifically diagnosed at birth or later with a perceptual or motor disability. When the child has an Individualized Family Service Plan (IFSP), care educators should consult and collaborate with the family and the rest of the IFSP team. This collaboration will support the outcomes included on the IFSP as part of inclusive learning experiences. Care educators can implement adaptations and modifications as specified in a child’s IFSP. If the child doesn’t have an IFSP, and care educators have a concern that a child’s perceptual or motor development is delayed, they can connect with the child’s family and collaborate in making a referral for a comprehensive developmental assessment. Development for children with disabilities may follow a different trajectory. Children with disabilities, like all children, still thrive under conditions where they can use their perceptual and motor skills to interact with caregivers and peers and explore their environment and the objects in it. These behaviors and skills may just look different or require different types of supports. Building trusting relationships with families helps care educators better understand the child’s individual development and ways to support the child. By doing so, families and care educators can identify areas where early intervention may be beneficial.

**Assistive technology and applications are increasingly available to help children with various disabilities.**<sup>4</sup> Children who are Deaf or Hard of Hearing can be supported using sign language or **augmentative and alternative communication (AAC) devices**. Children

with visual impairments may require glasses, magnifiers, or other assistive technology devices early in development to help them navigate their environment. Other assistive technology like mobility devices can give children with gross motor disabilities the opportunity to demonstrate skills like locomoting. For children who move with assistive devices, it is important to support their exploration by ensuring that they have access to appropriate technology and safe spaces where they can engage in exploration and play. For children with disabilities related to fine motor development, recent advances in three-dimensional printing allow many people to access everyday objects with adaptations specific to their unique fine motor development. Children who have sensory issues may also require adaptations to their environment, like changes in lighting or noise level, depending on their unique development. Similarly, children with low vision or who are blind may also benefit from adaptations to their environment, such as reducing clutter in areas to allow for uninterrupted and safe movement and maintaining consistency in the location of furniture and objects.

Overall, working with a team (family, early intervention providers, healthcare providers) that is familiar with the child can help care educators adapt the early care program environment and activities to be more inclusive of children with disabilities. It is important to support children with disabilities through providing adaptations to the environment and access technologies as early as possible so that they can participate with their peers and have more equitable access to the physical and social world.

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<sup>4</sup> For additional resources related to assistive technology, care educators can refer to their state assistive technology center. The Assistive Technology Act requires every U.S. state and territory to have an assistive technology center. [Ability Tools](https://www.abilitytools.org/) (<https://www.abilitytools.org/>) is the assistive technology center that serves California and is a useful resource for care educators and families.



## Perceptual and Motor Development Foundations

The foundations statements are intended to help care educators identify how they can support children’s growth in specific areas. Children develop the behaviors and skills described in these foundations at different times and in different ways within their home, various child care settings, and community contexts. Though foundations are focused on the child’s development, each foundation should be considered as developing in the context of relationships with caregivers who provide nurturance and support. It is important to keep in mind that the foundations are all related to each other and work together rather than in isolation. The skills and knowledge described in the Perceptual and Motor Development domain are organized into the following two strands:

- **Perceptual Development:** This strand describes the continuous process of taking in, organizing, and interpreting information drawn from the senses.
- **Motor Development:** This strand describes changes over time in children’s ability to control and move their bodies.

Though it is helpful to organize the foundations into separate strands, the skills and behaviors described in both the perceptual and motor development strands are closely interrelated. For example, a child’s perceptual abilities, such as using their sense of touch or sight to learn about objects in their environment, also guide their motor behaviors. Similarly, as children learn new motor skills like sitting or grasping, their perceptual skills also shift and change. When reviewing the foundations, care educators can consider how the strands are connected in practice.



Each strand starts with a description of foundational skills in the first four months followed by specific foundations related to the strand. Each foundation includes indicators and examples for three age periods across infancy and toddlerhood: 4 through 11 months, 11 through 23 months, and 23 through 36 months. Table 5 provides an overview of the foundations in perceptual and motor development for children 4 to 36 months organized by strand.

**Table 5. Perceptual and Motor Development Strands and Foundations 4 to 36 Months**

Strands	Foundations
<b>1.0: Perceptual Development</b>	<ul style="list-style-type: none"><li>• <b>1.1: Perceptual Development.</b> The developing ability to use information from the senses to understand and interact with the social and physical environment.</li></ul>
<b>2.0: Motor Development</b>	<ul style="list-style-type: none"><li>• <b>2.1: Gross Motor Development.</b> The developing ability to control the large muscles to move and explore.</li><li>• <b>2.2: Fine Motor Development.</b> The developing ability to use the small muscles of their fingers and hands to explore objects and accomplish tasks.</li></ul>



## Strand 1.0: Perceptual Development

This strand includes the following foundation:

- [Foundation 1.1: Perceptual Development](#)



### First Four Months

From birth, infants' daily experiences of processing novel sounds, sights, sensations, smells, and tastes set the foundation for how they learn about their world. Through information from the senses, infants learn about people, routines, culture, languages, and much more. In the first four months, young infants may show skills related to Perceptual Development as they experience the following:

- respond by calming down when rocked, touched, or bounced
- track a moving face, person, or object with their eyes
- turn their head toward a loud sound
- react to changes in temperature (for example, is startled by cold water)
- maintain their vision on high-contrast objects, like books with black-and-white pictures or patterns



## Foundation 1.1: Perceptual Development

The developing ability to use information from the senses to understand and interact with the social and physical environment.

### First Four Months

Refer to [Strand 1.0: Perceptual Development](#).

#### 4 through 11 months

Children use information from different senses to explore and learn about objects and people in their environment.

**For example, a child may:**

- Turn their head toward a caregiver who is singing a familiar comfort song in the child’s home language.
- Hold an object in their hand and switch from touching to mouthing to looking at the object as they explore it.
- Crawl or turn their body toward a familiar person who is calling their name.
- Place their hand on a touch-and-feel book to feel the different textures.
- React with their facial expressions and body movements when tasting new food.

#### 11 through 23 months

Children use the information across different senses to plan actions and adjust the ways they explore and interact with objects, people, and environments.

**For example, a child may:**

- Touch something wet and wipe their hand on their clothes to dry off.
- Sway back and forth to the beat of a song.
- Walk without help on flat surfaces like the floor but switch to crawling when moving across a soft and uneven surface like a mat or couch cushion.
- Stop pouring sand into a bucket that is already full.
- Try to fit a shape into the correct hole on a shape sorter and is sometimes successful after turning the shape in the correct direction.

#### 23 through 36 months

Children can quickly and easily use information across different senses to plan and accomplish tasks as part of play, social interactions, or daily routines.

**For example, a child may:**

- Talk louder to another child when there is too much noise during playtime.
- Fit a shape into the correct hole in a shape sorter on the first try.
- Move slowly when holding a full cup that might spill.
- Press harder on a clump of clay than on play dough.
- If the child is blind or has low vision, use their hands and arms to touch and detect obstacles in their way and adjust their reach accordingly while reaching for a water bottle.



## Strand 2.0: Motor Development

This strand includes the following foundations:

- [Foundation 2.1: Gross Motor Development](#)
- [Foundation 2.2: Fine Motor Development](#)

### First Four Months

Early on, infants' motor skills focus on gaining basic control and strength of their larger muscles (head, arms, and torso) through spontaneous, repetitive, uncontrolled movements (wiggling, flailing, and bouncing). These movements help strengthen muscles and allow infants to explore their body's capabilities. At the same time, infants are also gradually gaining control of their smaller muscles (hands and fingers). At birth, it's common for infants to have tight, closed fists. Over time, they open their hands more often, and they slowly gain more control over their individual fingers. In the first four months, young infants may show early motor skills as they engage in the following:

- move both arms and legs spontaneously
- open their hands more frequently (from usually closed, tight fists)
- hold their head steady when sitting with support
- touch a nearby object with their hands when waving their arms
- grasp and hold on to an object placed directly in their hand
- bring their hands and objects to their mouth to explore how they feel
- lift their head (or push up on elbows) when placed on tummy





## Foundation 2.1: Gross Motor Development

The developing ability to control the large muscles to move and explore.

### First Four Months

Refer to [Strand 2.0: Motor Development](#).

#### 4 through 11 months

Children develop increasing control of large muscle groups, such as their neck, arms, torso, and legs, helping them maintain or change positions or move short distances.

##### For example, a child may:

- Roll from back to tummy or from tummy to back without help.
- Sit upright, initially sitting with the support of an object or a person.
- Show signs of wanting to move short distances, like shuffling on their bottom while on the floor or pulling themselves along on a mat while on their tummy.
- Crawl on hands and knees for short distances.
- Hold on to nearby furniture or a familiar person to help pull themselves up to stand and take a few steps.

#### 11 through 23 months

Children coordinate large muscle groups to move from one place to another, adjusting their movement as needed to adapt to different surfaces and places.

##### For example, a child may:

- Crawl across a room on hands and knees to reach a familiar person.
- Walk or “cruise” while holding on to furniture or a familiar person’s hands.
- Use an assistive mobility device (such as an adaptive walker) to walk on a sidewalk.
- Walk across a room without holding on to anything.
- Climb up and down a couch, with some help from a familiar person.
- Run in short bursts as part of playing.

#### 23 through 36 months

Children demonstrate increasingly complex ways of coordinating their large muscle groups to move and explore in various ways (such as running, jumping, dancing).

##### For example, a child may:

- Walk up and down the playground steps.
- Jump with both feet off the ground.
- Participate in dance time by waving their arms, shaking their head, and/or moving their wheelchair in different directions.
- Try to kick a ball toward their friend, with some success.
- Run longer distances as part of playing.
- Use an assistive mobility device (such as an adaptive walker) to walk over uneven outdoor surfaces like grass.



## Foundation 2.2: Fine Motor Development

The developing ability to use the small muscles of their fingers and hands to explore objects and accomplish tasks.

### First Four Months

Refer to [Strand 2.0: Motor Development](#).

#### 4 through 11 months

Children use their hands and fingers to explore objects through activities like reaching, grasping, shaking, banging, and poking.

**For example, a child may:**

- Hold on to a rattle after it is placed in their hand and shake it to make a sound.
- Reach and grasp a block in front of them with one of their hands.
- Bring both hands together in front of them to hold a big stuffed animal.
- Hold a small cup in one hand and explore by banging it on a surface, turning it, mouthing it, or moving it to their other hand.
- Use their whole hand to press down on a button of a pop-up box toy.
- Use their whole hand to pick up large food pieces to eat.

#### 11 through 23 months

Children use both hands, together, to manipulate objects.

**For example, a child may:**

- Use their thumb and index finger to pick up small pieces of food to eat.
- Turn pages of a board book, sometimes turning more than one page at once.
- Press an adaptive switch to activate a toy that moves and makes sounds.
- Hold a cup in one hand and use their other hand to pull out an object that is stuck inside of it.
- Scribble on a paper using a thick crayon or a crayon with an adapted foam grip, sometimes holding the paper down with their other hand.

#### 23 through 36 months

Children use both hands together to manipulate objects and tools in intricate ways, allowing them to accomplish tasks more precisely and efficiently as part of play and learning.

**For example, a child may:**

- Use one hand to hold a bottle and their other hand to unscrew the lid.
- Turn pages of a book one at a time.
- Use an age-appropriate spoon or adaptable grip spoon to feed themselves.
- Build a tower using multiple blocks.
- Fold a piece of paper in half, making a crease.
- Draw some simple shapes that resemble, for example, lines or circles.
- Bang along to a song on their drum, with one hand holding the drumstick and the other hand holding the drum.



## **Foundation 2.2: Fine Motor Development** *(continued)*

**The developing ability to use the small muscles of their fingers and hands to explore objects and accomplish tasks.**

### **4 through 11 months**

- Hold an object in one hand and use the other hand to touch or poke it.

### **11 through 23 months**

- Use one hand to stack a ring on a post, while holding the post with the other.
- Use both hands to hold a cup and drink from it, while sometimes spilling the cup's contents.

### **23 through 36 months**