

Developmental Domain 4: Cognitive Development

**Concept
Development** CD

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

- 1 Birth to 9 months CD.1
 - 1 Turns head toward sounds CD.1.1
 - 2 Begins to focus on objects, sounds, and people CD.1.2
 - 3 Actively explores the environment through the five senses CD.1.3
 - 4 Attempts to repeat an action, e.g., pats the table and tries to pat it again CD.1.4
 - 5 Focuses and begins to distinguish between familiar and unfamiliar objects, sounds, and people CD.1.5
 - 2 7 months to 18 months CD.2
 - 1 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 CD.2.1
 - 2 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 CD.2.2
 - 3 Identifies and indicates objects and people in pictures, e.g., points CD.2.3
 - 4 Focuses attention on objects, people, and sounds for increasing amounts of time CD.2.4
 - 3 16 months to 24 months CD.3
 - 1 Pretends to use objects in their intended manner, e.g., holds a play phone to ear and engages in a conversation by babbling CD.3.1
 - 2 Begins to identify and name objects and people CD.3.2
 - 3 Uses an object to represent another during play, e.g., uses block as a phone CD.3.3
 - 4 Begins to identify characteristics of the object, e.g., “red ball” CD.3.4
 - 5 With assistance, groups a few objects by similar characteristics, e.g., color, shape, or size CD.3.5
 - 4 21 months to 36 months CD.4
 - 1 Identifies characteristics of objects and people when named, e.g., colors CD.4.1
 - 2 Begins to arrange objects in a line, e.g., lines up toy cars, one after the other CD.4.2
 - 3 Uses symbolic representation during play, e.g., grabs a hair brush and uses it as a telephone CD.4.3
 - 4 Purposefully arranges similar objects, e.g., divides plastic blocks into a red group, a blue group, and a yellow group CD.4.4
 - 5 Identifies categories, e.g., able to point out all the animals within a picture even with different types of objects represented CD.4.5
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Children demonstrate the ability to acquire, store, recall, and apply past experiences.

- 1 Birth to 9 months M.1
 - 1 Turns toward familiar voices, sounds, and/or objects M.1.1
 - 2 Anticipates familiar events, e.g., reaches for bottle and brings to mouth M.1.2
 - 3 Finds an object that it is partially hidden M.1.3
 - 4 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 M.1.4
 - 2 7 months to 18 months M.2
 - 1 Finds hidden objects, e.g., lifts a blanket to uncover a toy after seeing the caregiver hide it M.2.1
 - 2 Shows awareness of non-present, familiar adults, e.g., while in childcare, asks for mom and dad throughout the day M.2.2
 - 3 Searches for objects in their usual location, e.g., finds their favorite book on the bookshelf M.2.3
 - 4 Anticipates what event comes next in his or her daily routine, e.g., sits down for a morning snack after a music activity M.2.4
 - 3 16 months to 24 months M.3
 - 1 Remembers several steps in familiar routines and carries out these routines with little or no prompting M.3.1
 - 2 Recalls an event in the past, e.g., a special visitor, or a friend's birthday party M.3.2
 - 3 Searches for objects in different places M.3.3
 - 4 21 months to 36 months M.4
 - 1 Shares with adult what happened in school that day M.4.1
 - 2 Carries out routines independently without being reminded what comes next in the daily routine. M.4.2
 - 3 Uses play to communicate about previous events or experiences, including the sequence of events that took place, e.g., a friend's birthday party M.4.3
 - 4 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 M.4.4
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Children demonstrate an awareness of how objects and people move and fit in space.

- 1 Birth to 9 months SR.1
 - 1 Observes objects and people in the immediate environment, e.g., looks at own hands and feet, tracks caregiver with eyes, turns head toward sounds SR.1.1
 - 2 Reaches and grasps for objects SR.1.2
 - 3 Explores through the use of different senses, e.g., begins to mouth and/or pat objects SR.1.3
 - 4 Focuses attention on an object in motion and follows it, e.g., watches a toy roll away after it falls SR.1.4
 - 2 7 months to 18 months SR.2
 - 1 Puts objects in a bucket and then dumps them out; repeats this action SR.2.1
 - 2 Begins to identify physical obstacles and possible solutions when moving around, e.g., crawls around a chair instead of under it SR.2.2
 - 3 Drops objects such as toys and watches them move SR.2.3
 - 4 Discriminates between small and large objects, e.g., uses one hand or two hands in a variety of ways SR.2.4
 - 3 16 months to 24 months SR.3
 - 1 Understands words that characterize size, e.g., big, small SR.3.1
 - 2 Uses simple trial and error to complete simple puzzles, e.g., matches piece, orients and attempts to turn to make a puzzle piece fit SR.3.2
 - 3 Recognizes the proper direction of objects, e.g., will turn over an upside-down cup SR.3.3
 - 4 Begins to understand simple prepositions, e.g., under, in, behind SR.3.4
 - 4 21 months to 36 months SR.4
 - 1 Uses words and gestures to describe size of objects SR.4.1
 - 2 Recognizes where his or her body is in relation to objects, e.g., squeezing in behind a chair SR.4.2
 - 3 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. SR.4.3
 - 4 Actively uses body to change where he or she is in relation to objects, e.g., climbs to sit on the couch SR.4.4
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Children demonstrate the understanding of concepts, experiences, and ideas through symbolic representation .

- 1 Birth to 9 months **ST.1**
 - 1 Uses senses to explore objects, e.g., observes, mouths, touches **ST.1.1**
 - 2 Interacts with caregiver(s) and the environment **ST.1.2**
 - 3 Physically manipulates objects, e.g., twists and turns toys, drops items **ST.1.3**
 - 4 Combines objects in play **ST.1.4**
 - 5 Locates an object that has been partially hidden **ST.1.5**
 - 2 7 months to 18 months **ST.2**
 - 1 Demonstrates object permanence , e.g., realizes objects and people still exist, even when they are not physically visible **ST.2.1**
 - 2 Imitates adult’s actions, e.g., bangs a drum with a rattle, after observing an adult complete the action **ST.2.2**
 - 3 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 **ST.2.3**
 - 4 Recognizes familiar people and/or objects in photographs **ST.2.4**
 - 3 16 months to 24 months **ST.3**
 - 1 Pretends one object is really another by using substitution, e.g., a napkin for a baby’s diaper **ST.3.1**
 - 2 Finds objects after they are hidden in close proximity **ST.3.2**
 - 3 Engages in pretend play with familiar objects and experiences, e.g., places baby doll in stroller and pushes the stroller **ST.3.3**
 - 4 Identifies or names his or her drawings, e.g., points to scribble and says, “mama and dada” **ST.3.4**
 - 5 Communicates labels to familiar objects and/or people, e.g., says “dog” when seeing four-legged animals **ST.3.5**
 - 4 21 months to 36 months **ST.4**
 - 1 Assigns roles to peers while engaged in imaginary play **ST.4.1**
 - 2 Builds in sequencing while engaged in play, e.g., beginning, middle, and end **ST.4.2**
 - 3 Communicates descriptors of people or objects that are not present, e.g., says “My mommy has blue eyes” **ST.4.3**
 - 4 Projects feelings and words onto stuffed animals, e.g., “The horse is sad” **ST.4.4**
 - 5 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 **ST.4.5**
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Children demonstrate the ability to convey ideas and emotions through creative expression.

- 1 Birth to 9 months **CE.1**
 - 1 Actively explores sensory objects in the environment **CE.1.1**
 - 2 Participates in interactions with caregiver(s), e.g., observes, smiles, coos **CE.1.2**
 - 3 Demonstrates interest in sounds, songs, music, and colors **CE.1.3**
 - 4 Listens and moves to music **CE.1.4**
 - 5 Manipulates objects, e.g., turns, shakes, bangs **CE.1.5**
 - 2 7 months to 18 months **CE.2**
 - 1 Enjoys familiar songs and word rhymes **CE.2.1**
 - 2 Begins to use symbolic play while interacting, e.g., holds a play phone to ear and has a “conversation” with grandma **CE.2.2**
 - 3 Begins to stack large blocks with or without support **CE.2.3**
 - 4 Participates in music activities by performing some accompanying hand movements **CE.2.4**
 - 5 Engages in art activities such as coloring or finger painting **CE.2.5**
 - 3 16 months to 24 months **CE.3**
 - 1 Imitates basic movements during an activity, e.g., places beanbag on head **CE.3.1**
 - 2 Engages in more intricate pretend play, e.g., uses a toy banana as a phone **CE.3.2**
 - 3 Enjoys using instruments while listening to music **CE.3.3**
 - 4 Builds by using different objects and materials, e.g., lines up cars, stacks small boxes **CE.3.4**
 - 5 Enjoys breaking down what he or she has built, e.g., knocking over a stack of blocks with his or her arm **CE.3.5**
 - 6 Creates artwork; focuses and enjoys the process rather than the final product **CE.3.6**
 - 4 21 months to 36 months **CE.4**
 - 1 Selects movements that reflect mood, e.g., jumps up and down when excited **CE.4.1**
 - 2 Identifies and discusses characters that are meaningful to him and her **CE.4.2**
 - 3 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 **CE.4.3**
 - 4 Uses imaginary play to cope with fears, e.g., puts monster in a closet **CE.4.4**
 - 5 Plays dress-up and invites caregiver(s) to play along **CE.4.5**
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Children demonstrate the ability to use knowledge, previous experiences, and trial and error to make sense of and impact their world.

- 1 Birth to 9 months LR.1
 - 1 Uses nonverbal and verbal communication to generate responses from caregiver(s), e.g., coos, reaches, laughs LR.1.1
 - 2 Repeats similar actions on different objects, e.g., shakes stuffed animal in the same manner as a rattle to hear noise LR.1.2
 - 3 Looks for and finds an object that has fallen LR.1.3
 - 2 7 months to 18 months LR.2
 - 1 Uses objects as they are intended, e.g., pretends to drink milk out of a toy bottle LR.2.1
 - 2 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 LR.2.2
 - 3 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 LR.2.3
 - 4 Imitates adult's body language and simple actions, e.g., puts hands on hips or pretends to brush crumbs off table LR.2.4
 - 3 16 months to 24 months LR.3
 - 1 Repeats actions over and over to cause desired effect, e.g., dumps out a bucket and refills it with objects LR.3.1
 - 2 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 LR.3.2
 - 3 Understands functionality of objects, e.g., mop is used to clean the floor LR.3.3
 - 4 Begins to understand certain behaviors are related to certain contexts, e.g., behaves differently at childcare than at home LR.3.4
 - 4 21 months to 36 months LR.4
 - 1 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 LR.4.1
 - 2 Makes a prediction of what will happen next in a sequence of events LR.4.2
 - 3 Applies past experiences to new situations LR.4.3
 - 4 Expresses cause and effect in certain situations, e.g., "I fell down and now I have a boo-boo." LR.4.4
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Children demonstrate awareness of quantity, counting, and numeric competencies.

- 1 Birth to 9 months QN.1
 - 1 Uses sounds and body language to signal for more, e.g., begins to cry when finishing a bottle of milk and is still hungry QN.1.1
 - 2 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 QN.1.2
 - 3 Expresses desire for more through facial cues, sounds, gestures, and actions, e.g., bangs, opens mouth, points, reaches QN.1.3
 - 4 Holds on to more than one object at a time, e.g., grasps a rattle in one hand, and reaches for block QN.1.4
- 2 7 months to 18 months QN.2
 - 1 Understands the concept of “more” in regard to food and play; signs or says, “more” QN.2.1
 - 2 Imitates counting, e.g., climbs stairs and mimics “one, two” QN.2.2
 - 3 Uses nonverbal and verbal communication to express more complex concepts, e.g., “some,” “again,” “all done” QN.2.3
 - 4 Begins to understand descriptive words and apply attributes to people, e.g., points to himself when asked, “Who’s a big boy?” QN.2.4
 - 5 Begins to use number words to label quantities, even though incorrect QN.2.5
- 3 16 months to 24 months QN.3
 - 1 Communicates amount of familiar objects, e.g., sees two apples and says, “two” QN.3.1
 - 2 Uses nonverbal gestures to demonstrate understanding of quantities, e.g., holds up two fingers to express two of something QN.3.2
 - 3 Begins to use “one,” “two,” and “three” to identify very small quantities without counting them QN.3.3
 - 4 Begins to use descriptive words for people in a more complex fashion, e.g., “he big,” “she baby” QN.3.4
- 4 21 months to 36 months QN.4
 - 1 Understands progressive number order, e.g., recites the number series to ten QN.4.1
 - 2 Begins to count objects; may count objects twice and/or skip numbers QN.4.2
 - 3 Begins to identify quantity comparison, e.g., “Which group has more blocks?” QN.4.3
 - 4 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 QN.4.4
 - 5 Uses descriptive words when communicating about others, e.g., “She ran fast,” “He is short,” “Look how far away I am” QN.4.5

Science Concepts & Exploration SCE

Children demonstrate a basic awareness of and use scientific concepts.

- 1 Birth to 9 months SCE.1
 - 1 Observes people and objects in his or her environment SCE.1.1
 - 2 Engages in social interactions with familiar adults SCE.1.2
 - 3 Actively explores new objects found in the environment, e.g., mouths, pats, grasps SCE.1.3
 - 4 Uses all of his or her senses to explore and discover new things, e.g., reaches out to touch rain or snow SCE.1.4
 - 2 7 months to 18 months SCE.2
 - 1 Actively explores objects and experiences their properties through the different senses, e.g., color, texture, weight, taste SCE.2.1
 - 2 Repeats actions that attracts his or her attention, e.g., drops object onto floor to hear the sound it makes SCE.2.2
 - 3 Experiments with different textures found in the outside environment, e.g., runs fingers through dirt, crumbles dry leaves SCE.2.3
 - 3 16 months to 24 months SCE.3
 - 1 Shows interest in own body; may know names for certain body parts SCE.3.1
 - 2 Begins simple categorizing, e.g., cats and dogs are animals SCE.3.2
 - 3 Asks simple questions about nature SCE.3.3
 - 4 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 SCE.3.4
 - 5 Uses motion and sound to represent an observation, e.g., “snake, ssssss!” SCE.3.5
 - 4 21 months to 36 months SCE.3
 - 1 Begins to identify characteristics of animals, e.g., “The dog barks” SCE.3.1
 - 2 Identifies various attributes of objects, food, and materials, e.g., color, shapes, size SCE.3.2
 - 3 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 SCE.3.3
 - 4 Engages in processes to reach an outcome, e.g., mixes three different colors of paint to see what color emerges SCE.3.4
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Children demonstrate the emerging ability to recognize risky situations and respond accordingly.

- 1 Birth to 9 months SWB.1
 - 1 Signals needs through reflexes and sounds, e.g., demonstrates rooting reflex when hungry, cries when uncomfortable SWB.1.1
 - 2 Actively observes and explores environment SWB.1.2
 - 3 Demonstrates interest in own body, e.g., stares at hands, mouths feet, pokes at belly button SWB.1.3
 - 4 Uses physical movements to explore environment, e.g., reaching, sitting, rolling SWB.1.4
 - 5 Demonstrates trust in caregiver(s), e.g., reaches for adult, comforted when soothed, looks for caregiver in novel situations SWB.1.5
- 2 7 months to 18 months SWB.2
 - 1 Uses social referencing to assess uncertain situations, e.g., looks at a caregiver for social cues as to whether or not to proceed SWB.2.1
 - 2 Actively climbs to reach for wanted objects during play SWB.2.2
 - 3 Responds to cues from caregiver in uncertain and unsafe situations SWB.2.3
 - 4 Hesitates and demonstrates caution in new and/or changing situations, e.g., stops crawling when reaches the edge of an uneven surface SWB.2.4
 - 5 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 SWB.2.5
- 3 16 months to 24 months SWB.3
 - 1 Understands when “no” and “stop” is communicated through either words or gestures SWB.3.1
 - 2 Responds to warnings and begins to change behavior accordingly, e.g., moves away from the outlet after caregiver communicates “no” SWB.3.2
 - 3 Seeks comfort when fearful SWB.3.3
 - 4 Imitates adults’ actions during play, e.g., tells baby doll “no touch” when walking by the pretend stove SWB.3.4
- 4 21 months to 36 months SWB.4
 - 1 Pays attention to safety rules but still needs supervision to keep self safe SWB.4.1
 - 2 Communicates to an adult if something is wrong, e.g., a peer is hurt or missing SWB.4.2
 - 3 Remembers and begins to apply past experiences to future situations, e.g., walks carefully and slowly when there is snow on the ground SWB.4.3
 - 4 Reminds younger peers of rules, e.g., holds hands with a younger peer while walking outside SWB.4.4