

North Carolina Foundations for Early Learning and Development

# **Cognitive Development (CD)**

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### Construction of Knowledge: Thinking and Reasoning

- Goal CD-1.** Children use their senses to construct knowledge about the world around them. **GOAL CD-1**
- CD-1h.** Explore objects, tools, and materials systematically to learn about their properties (weigh an object, observe something from the top of the object to the bottom). **CD-1H**
  - CD-1i.** Express knowledge gathered through their senses using play, art, language, and other forms of representation. **CD-1I**
  - CD-1j.** Group familiar objects that go together (shoe and sock, brush and paint, hammer and nail). **CD-1J**
  - CD-1k.** Explore objects, tools, and materials systematically to learn about their properties (weigh an object, observe something from the top of the object to the bottom). **CD-1K**
  - CD-1l.** Express knowledge gathered through their senses using play, art, language, and other forms of representation. **CD-1L**
  - CD-1m.** Distinguish appearance from reality (the person behind a mask is still the same person; recognize that a fantasy story could not be real). **CD-1M**
  - CD-1n.** Organize and use information through matching, grouping, and sequencing. **CD-1N**
- Goal CD-2.** Children recall information and use it for new situations and problems. **GOAL CD-2**
- CD-2o.** Recognize whether a picture or object is the same as or different from something they have seen before. **CD-2O**
  - CD-2p.** Apply what they know about everyday experiences to new situations (look for the seatbelt on the bus). **CD-2P**
  - CD-2q.** Describe or act out a memory of a situation or action, with adult support. **CD-2Q**
  - CD-2r.** Make predictions about what will happen using what they know. **CD-2R**
  - CD-2s.** Introduce ideas or actions in play based on previous knowledge or experience. **CD-2S**
  - CD-2t.** Ask questions about why things happen and try to understand cause and effect. **CD-2T**
  - CD-2u.** Demonstrate their ability to apply what they know about everyday experiences to new situations. **CD-2U**
  - CD-2v.** Describe past events in an organized way, including details or personal reactions. **CD-2V**
  - CD-2w.** Improve their ability to make predictions and explain why things happen using what they know. **CD-2W**

**CD-2x.** Introduce more elaborate or detailed ideas or actions into play based on previous knowledge or experience. **CD-2X**

**CD-2y.** Try to reach logical conclusions (including conclusions regarding cause and effect) about familiar situations and materials, based on information gathered with their senses. **CD-2Y**

**Goal CD-3.** Children demonstrate the ability to think about their own thinking: reasoning, taking perspectives, and making decisions. **GOAL CD-3**

**CD-3f.** Use language to identify pretend or fantasy situations (say, “Let’s pretend we’re going on a trip.” “That’s a pretend story.”). **CD-3F**

**CD-3g.** Use words like “think” and “know” to talk about thoughts and beliefs. **CD-3G**

**CD-3h.** Recognize that beliefs and desires can determine what people do (e.g., a person will look for a missing object based on where they think it is rather than where it actually is). **CD-3H**

**CD-3i.** Use language to identify pretend or fantasy situations (say, “Let’s pretend we’re going on a trip.” “That’s a pretend story.”). **CD-3I**

**CD-3j.** Express understanding that others may have different thoughts, beliefs, or feelings than their own (“I like ketchup and you don’t.”). **CD-3J**

**CD-3k.** Use language to describe their thinking processes with adult support. **CD-3K**

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## Creative Expression

**Goal CD-4.** Children demonstrate appreciation for different forms of artistic expression. **GOAL CD-4**

- CD-4g.** Express pleasure in different forms of art (call something “pretty,” express preferences, choose to look at book of photographs or listen to music again). **CD-4G**
- CD-4h.** Participate in, describe and ask questions about art, music, dance, drama, or other aesthetic experiences (describe dancers spinning round and round; talk about colors in a painting). **CD-4H**
- CD-4i.** Express pleasure in different forms of art (call something “pretty,” express preferences, choose to look at book of photographs or listen to music again). **CD-4I**
- CD-4j.** Participate in, describe and ask questions about art, music, dance, drama, or other aesthetic experiences (describe dancers spinning round and round; talk about colors in a painting). **CD-4J**
- CD-4k.** Use art-specific vocabulary to express ideas and thoughts about artistic creations more clearly (say, “We need a stage for our puppet show.”). **CD-4K**

**Goal CD-5.** Children demonstrate self-expression and creativity in a variety of forms and contexts, including play, visual arts, music, drama, and dance. **GOAL CD-5**

- CD-5m.** Choose to participate and express themselves through a variety of creative experiences, such as art, music, movement, dance, and dramatic play. **CD-5M**
- CD-5n.** Show creativity and imagination when using materials and assuming roles during pretend play. **CD-5N**
- CD-5o.** Explore the properties of art materials and use them with purpose to draw, paint, sculpt, and create in other ways. **CD-5O**
- CD-5p.** Show awareness of different musical instruments, rhythms, and tonal patterns as they make music or participate in music activities. **CD-5P**
- CD-5q.** Show awareness of various patterns of beat, rhythm, and movement through music and dance activities. **CD-5Q**
- CD-5r.** Choose to participate and express themselves through a variety of creative experiences, such as art, music, movement, dance, and dramatic play. **CD-5R**
- CD-5s.** Plan and act out scenes based on books, stories, everyday life, and imagination. **CD-5S**
- CD-5t.** Plan and complete artistic creations such as drawings, paintings, collages, and sculptures. **CD-5T**
- CD-5u.** Recall and imitate different musical tones, rhythms, rhymes, and songs as they make music or participate in musical activities (clap

previous beat to a new song). CD-5U

**CD-5v.** Recall and imitate patterns of beat, rhythm, and movement as they create dances or participate in movement and dance activities. CD-5V

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## Social Connections

- Goal CD-6.** Children demonstrate knowledge of relationships and roles within their own families, homes, classrooms, and communities. **GOAL CD-6**
- CD-6h.** Talk about close family members, name their relationships to each other, and describe family routines (“Marika is my sister.” “My grandma takes care of me at night.”). **CD-6H**
  - CD-6i.** Adopt roles of family and community members during play, given support and realistic props. **CD-6I**
  - CD-6j.** Recognize and identify the roles of some community helpers (police, fire fighters, garbage collectors). **CD-6J**
  - CD-6k.** Talk about a wide circle of family members and other people important to the family, their relationships to each other, and shared experiences. **CD-6K**
  - CD-6l.** Adopt roles of a wide variety of family and community members during dramatic play, using props, language, and actions to add detail to their play. **CD-6L**
  - CD-6m.** Recognize and identify the roles of a wide variety of community helpers (police, fire fighters, garbage collectors, doctors, dentists). **CD-6M**
- Goal CD-7.** Children recognize that they are members of different groups (e.g., family, preschool class, cultural group). **GOAL CD-7**
- CD-7d.** Identify self as a part of a specific family, preschool class, or other familiar group (e.g., point to picture and say, “That’s my family,” or “I’m in Ms. Emily’s class.”). **CD-7D**
  - CD-7e.** Identify and express self as a part of several groups (e.g., family, preschool class, faith community). **CD-7E**
- Goal CD-8.** Children identify and demonstrate acceptance of similarities and differences between themselves and others. **GOAL CD-8**
- CD-8d.** Show acceptance of people who are different from themselves as well as people who are similar. **CD-8D**
  - CD-8e.** Given support and guidance, explore different cultural practices during play and planned activities. **CD-8E**
  - CD-8f.** Show acceptance of people who are different from themselves as well as people who are similar. **CD-8F**
  - CD-8g.** Talk about how other children have different family members and family structures than their own (“I live with my Grandma and Shanika lives with her Mom and Dad.” “David’s dad works but my Daddy stays home and takes care of me.”). **CD-8G**
  - CD-8h.** Show acceptance of different cultures through exploration of varying customs and traditions, past and present (how people dress, how people speak, food, music, art, etc.). **CD-8H**

**Goal CD-9.** Children explore concepts connected with their daily experiences in their community. **GOAL CD-9**

**CD-9b.** Describe characteristics of the places where they live and play (say, “My house is big and there are trees in my yard.” “The playground has swings and a sandbox.”). **CD-9B**

**CD-9c.** Notice changes that happen over time (seasons, self or others growing bigger). **CD-9C**

**CD-9d.** Notice and talk about weather conditions. **CD-9D**

**CD-9e.** With prompting and support, participate as a member of a democratic classroom community (vote for name of class pet, wait turn to paint when easels are full). **CD-9E**

**CD-9f.** Describe characteristics of the places where they live and play (say, “My house is big and there are trees in my yard.” “The playground has swings and a sandbox.”). **CD-9F**

**CD-9g.** Observe and talk about changes in themselves and their families over time. **CD-9G**

**CD-9h.** Observe and talk about how people adapt to seasons and weather conditions (put out salt in icy weather, wear rain gear). **CD-9H**

**CD-9i.** Show awareness of the basic needs all families have (food, shelter, clothing) and how needs are met (work, help each other). **CD-9I**

**CD-9j.** Demonstrate positive social behaviors and take personal responsibility as a member of a group (share, take turns, follow rules, take responsibility for classroom jobs). **CD-9J**

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## Mathematical Thinking and Expression

- Goal CD-10.** Children show understanding of numbers and quantities during play and other activities. **GOAL CD-10**
- CD-10j.** Rote count in order to 10 with increasing accuracy. **CD-10J**
- CD-10k.** Count up to 5 objects arranged in a line using one-to-one correspondence with increasing accuracy, and answer the question “How many?” **CD-10K**
- CD-10l.** Compare visually two groups of objects that are obviously equal or unequal in quantity and communicate that they are the same or different, and which one has more (choose a plate with four cookies rather than a plate with one cookie). **CD-10L**
- CD-10n.** Rote count in order to 20 with increasing accuracy. **CD-10N**
- CD-10o.** Without counting, state the number of objects in a small collection (1-3) (when a friend holds up two fingers, look at her hand and say, “Two fingers” without counting). **CD-10O**
- CD-10p.** Count up to 10 objects arranged in a line using one-to-one correspondence with increasing accuracy, and answer the question “How many?” **CD-10P**
- CD-10q.** Given a number 0-5, count out that many objects. **CD-10Q**
- CD-10r.** Compare the amount of items in small sets of objects (up to 5 objects) by matching or counting and use language such as “more than” and “less than” to describe the sets of objects. **CD-10R**
- Goal CD-10.** Children show understanding of numbers and quantities during play and other activities. **GOAL CD-10**
- CD-10m.** Show they understand that adding objects to a group will make a bigger group, and taking away objects will make a smaller group. **CD-10M**
- CD-10s.** Show they understand that putting two groups of objects together will make a bigger group and that a group of objects can be taken apart into smaller groups. **CD-10S**
- CD-10t.** Write numerals or number-like forms during play and daily activities. **CD-10T**
- CD-10u.** Match numerals 1-5 to sets of objects, with guidance and support. **CD-10U**
- CD-10v.** Recognize some numerals and attempt to write them during play and daily activities. **CD-10V**
- CD-10w.** Show understanding of first, next, and last during play and daily activities (answer questions about who is first and last to slide down the slide; say, “The engine is first, and the caboose is last” when making a train). **CD-10W**

**Goal CD-11.** Children compare, sort, group, organize and measure objects and create patterns in their everyday environment. **GOAL CD-11**

**CD-11f.** Use descriptive language for size, length, or weight (short, tall, long, heavy, big). **CD-11F**

**CD-11g.** Use simple measurement tools with guidance and support to measure objects (a ruler, measuring cup, scale). **CD-11G**

**CD-11h.** Compare the size or weight of two objects and identify which one is longer/ taller/heavier than the other (“That rock is heavier than this one; I can’t lift it.” “A snake is longer than a worm.”). **CD-11H**

**CD-11i.** Identify familiar objects as the same or different. **CD-11I**

**CD-11j.** Sort familiar objects into categories with increasing accuracy (tools for woodworking and utensils for cooking; rectangle blocks on one shelf and square blocks on another shelf). **CD-11J**

**CD-11k.** Recognize simple repeating patterns and attempt to create them during play (repeat a movement pattern during a song, make a line of blocks in alternating colors). **CD-11K**

**CD-11l.** Use descriptive language for size, length, or weight (short, tall, long, heavy, big). **CD-11L**

**CD-11m.** Use simple measurement tools with guidance and support to measure objects (a ruler, measuring cup, scale). **CD-11M**

**CD-11n.** Directly compare more than two objects by size, length, or weight (“That rock is heavier than these others; I can’t lift it.” Look at three strings that are different lengths and select the longest string). **CD-11N**

**CD-11o.** Put a few objects in order by length (arrange a group of 3 blocks in order from the shortest to the longest). **CD-11O**

**CD-11p.** Sort a group of objects (0-10) using one attribute (color, size, shape, quantity) with increasing accuracy (sort blocks by shape and place like-shaped blocks on the shelf; sort beads by color). **CD-11P**

**CD-11q.** Duplicate and extend simple patterns using concrete objects (look at a pattern of beads and tell what bead comes next in the pattern). **CD-11Q**

**Goal CD-12.** Children identify and use common shapes and concepts about position during play and other activities. **GOAL CD-12**

**CD-12h.** Show they understand positions in space by using position words during play and by following directions from an adult (say, “Stand behind the chair.” “Put the ball in the box.”). **CD-12H**

**CD-12i.** Use 2- and 3-dimensional shapes to create pictures, designs, or structures. **CD-12I**

**CD-12j.** Find shapes in the environment and describe them in their own words. **CD-12J**

- CD-12k.** Consistently use a variety of words for positions in space, and follow directions using these words. **CD-12K**
- CD-12l.** Use 2- and 3-dimensional shapes to represent realworld objects (say, “We are building a castle and we need a round block for the tunnel.” “I glued a circle and a square on my picture to make a house.”). **CD-12L**
- CD-12m.** Name basic shapes and describe their characteristics using descriptive and geometric attributes (“That’s a triangle; it’s pointy.” “It’s a circle because it’s round.”). **CD-12M**

**Goal CD-13.** Children use mathematical thinking to solve problems in their everyday environment. **GOAL CD-13**

- CD-13b.** Seek answers to questions by using mathematical thinking during play and daily activities (determine who is taller by standing next to classmate; find two smaller blocks to replace larger block). **CD-13B**
- CD-13c.** Use observation and counting (not always correctly) to find out how many things are needed during play and other daily activities (figure out how many spoons are needed for snack, find enough dolls so each person has one when playing in the dramatic play area). **CD-13C**
- CD-13d.** Use drawing and concrete materials to represent mathematical ideas (draw many circles to show “lots of people,” put Popsicle® sticks in a pile to show the number of children who want crackers for snack). **CD-13D**
- CD-13e.** Seek answers to questions during play and daily activities using an increasing variety of mathematical strategies. **CD-13E**
- CD-13f.** Use observation and counting with increasing accuracy to answer questions such as “How many do we need?” and “How many more do we need?” during play and other daily activities (count new children to see how many more plates are needed for snack; return extra drinks to cooler at picnic to arrive at the correct number). **CD-13F**
- CD-13g.** Use drawing and concrete materials to represent an increasing variety of mathematical ideas (draw shapes to represent pattern; stack different-colored blocks to represent classmates’ answers to a survey question). **CD-13G**
- CD-13h.** Begin to explain how a mathematical problem was solved (“I saw that there was always a blue flower after a red flower so I knew to put a blue one next.” “I counted four friends who didn’t have cookies so I got four more.”). **CD-13H**

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## Scientific Exploration and Knowledge

- Goal CD-14.** Children observe and describe characteristics of living things and the physical world. **GOAL CD-14**
- CD-14e.** Participate in the care of living things, with guidance and support (water plants, help to feed classroom pet). **CD-14E**
  - CD-14f.** Notice and react to the natural world and the outdoor environment. **CD-14F**
  - CD-14g.** Notice and describe characteristics of plants and animals, such as appearance, similarities, differences, behavior, and habitat. **CD-14G**
  - CD-14h.** Notice and describe current weather conditions. **CD-14H**
  - CD-14i.** Notice and describe properties of materials and changes in substances (water freezes into ice, pudding thickens, clay hardens). **CD-14I**
  - CD-14j.** Participate in activities that help to care for the environment, with guidance and support (pick up trash, recycle paper). **CD-14J**
  - CD-14k.** Collect items from nature (rocks, leaves, insects) and classify them using physical characteristics (color, size, shape, texture). **CD-14K**
  - CD-14l.** Notice and react to the natural world and the outdoor environment. **CD-14L**
  - CD-14m.** Describe some things plants and animals need to live and grow (sunlight, water, food). **CD-14M**
  - CD-14n.** Take responsibility for the care of living things (independently feed classroom pet as daily chore, water plant when dry, weed vegetable garden). **CD-14N**
  - CD-14o.** Notice and describe weather conditions, position of the sun and moon at different times, and seasonal changes. **CD-14O**
  - CD-14p.** Notice, describe, and attempt to explain properties of materials and changes in substances (metal railing is hot because the sun shines on it; ice melts when it gets warmer). **CD-14P**
  - CD-14q.** Participate in activities that help to care for the environment and explain why they are important with guidance and support (gathering cans for recycling, planting trees). **CD-14Q**
- Goal CD-15.** Children explore the world by observing, manipulating objects, asking questions, making predictions, and developing generalizations. **GOAL CD-15**
- CD-15i.** Represent what they learn during scientific exploration through drawing, modeling, building, movement, or other methods. **CD-15I**

- CD-15j.** Observe objects, materials, and phenomena and describe what they notice (temperature, texture, size, weight, color, etc.). **CD-15J**
- CD-15k.** Ask questions to find out more about the natural world. **CD-15K**
- CD-15l.** Use simple tools to investigate objects and materials, with guidance and support (magnifying glass, sifter, ramps for rolling balls and cars). **CD-15L**
- CD-15m.** Describe and predict changes that take place when mixing and manipulating materials. **CD-15M**
- CD-15n.** Represent what they learn during scientific exploration through drawing, modeling, building, movement, or other methods. **CD-15N**
- CD-15o.** Ask questions and identify ways to find answers (look in a book, use the computer, try something and watch what happens). **CD-15O**
- CD-15p.** Compare objects, materials, and phenomena by observing and describing their physical characteristics. **CD-15P**
- CD-15q.** Use an increasing variety of tools to investigate the world around them (measuring tools, balance, prism, droppers). **CD-15Q**
- CD-15r.** Make and check predictions through observations and experimentation, with adult support and guidance. **CD-15R**
- CD-15s.** Manipulate the environment to produce desired effects and invent solutions to problems (attach a piece of string to the light switch so they can independently turn off the lights). **CD-15S**