## IELG Standards - Cognitive Development

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
0-9 months	Concept Development	Children begin to receive and organize information through social interactions and sensory exploration.	<ul> <li>Turns head toward sounds</li> <li>Begins to focus on objects, sounds, and people</li> <li>Actively explores the environment through the five senses</li> <li>Attempts to repeat an action, e.g., pats the table and tries to pat it again</li> <li>Eocuses and begins to distinguish between familiar and unfamiliar objects, sounds, and people</li> </ul>	<ul> <li>Provide responsive and nurturing care; read infant's cues</li> <li>Provide objects that the child can manipulate, mouth, and grasp</li> <li>Imitate actions the child attempts to make</li> <li>Engage in play with the child; follow the child's lead</li> </ul>
7-18 months	Concept Development	Children begin to recognize object characteristics, and build awareness of simple concepts through interactions and exploration.	•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 •Eocuses attention on objects, people, and sounds for increasing amounts of time	<ul> <li>Use play to hide objects from the child, and encourage the child to find them</li> <li>Demonstrate how to make different objects move, e.g., roll a ball gently toward the child</li> <li>Name objects found in the child's environment</li> <li>Talk to the child about objects and their characteristics, e.g.,</li> <li>"Both of these are red"</li> <li>Name objects and pictures the child points to</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
16-24 months	Concept Development	Children begin to understand object representation and begin to use verbal and nonverbal communication with object use.	<ul> <li>Pretends to use objects in their intended manner, e.g., holds a play phone to ear and engages in a conversation by babbling</li> <li>Begins to identify and name objects and people</li> <li>Uses an object to represent another during play, e.g., uses block as a phone</li> <li>Begins to identify characteristics of the object, e.g., "red ball"</li> <li>With assistance, groups a few objects by similar characteristics, e.g., color, shape, or size</li> </ul>	<ul> <li>Continue labeling the child's environment for him or her; introduce new objects to the child by naming them</li> <li>Engage in play with the child; follow the child's lead</li> <li>Create a simple game where the child can try to sort objects by one attribute</li> <li>Encourage the child to identify objects that are the same, e.g., matching activities</li> </ul>
21-36 months	Concept Development	Children begin to demonstrate the ability to classify objects based on common characteristics, and begin to apply knowledge of simple concepts to new situations.	•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	<ul> <li>Incorporate learning about colors into songs, reading, and sensory play</li> <li>Provide different materials and objects of the same shape and color, e.g., blocks</li> <li>Play simple matching games with the child; provide guidance as needed</li> <li>Expand on the child's play by introducing new ways to use familiar objects</li> <li>Create a simple game where the child can try to sort objects by two or three attributes</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
0-9 months	Memory	Children begin to form memories from their experiences and will begin to anticipate certain patterns for occurrences.	<ul> <li>Turns toward familiar voices, sounds, and/or objects</li> <li>Anticipates familiar events, e.g., reaches for bottle and brings to mouth</li> <li>Einds an object that it is partially hidden</li> <li>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</li> </ul>	<ul> <li>Provide interesting and age-appropriate toys and objects for exploration</li> <li>Engage and interact with the child frequently during the day</li> <li>Hide toys under blankets and wait for the child to respond</li> <li>Play games such as peek-a-boo, or play with a jack-in-the-box</li> </ul>
7-18 months	Memory	Children remember familiar people, routines, actions, places, and objects.	•Einds 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	<ul> <li>Play with the child using various objects which they can explore</li> <li>Set routines; create picture cards with the daily routine so the child can begin to understand what his or her day will consist of</li> <li>Play simple games that include hiding a toy in a nearby location</li> <li>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."</li> </ul>
16-24 months	Memory	Children recognize and anticipate the series of steps in familiar activities.	•Remembers several steps in familiar routines and carries out these routines with little or no prompting •Recalls an event in the past, e.g., a special visitor, or a friend's birthday party •Searches for objects in different places	<ul> <li>Engage in conversations with the child pertaining to past experiences; ask questions</li> <li>Notify the child when there will be a change in the daily routine</li> <li>Ask the child what he or she thinks may happen next when reading a familiar story</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
21-36 months	Memory	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.	•Shares with adult what happened in school that day •Carries out routines independently without being reminded what comes next in the daily routine. •Uses play to communicate about previous events or experiences, including the sequence of events that took place, e.g., a friend's birthday party •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	<ul> <li>Listen to the child's stories; ask open-ended questions</li> <li>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"</li> <li>Read a story with the child; ask the child if he or she can remember what happened at a certain part</li> <li>Encourage the child to create a story around a picture he or she has drawn</li> </ul>
0-9 months	Spatial Relationships	Children use observation and sensory exploration to begin building an understanding of how objects and people move in relationship to each other.	•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 •Eocuses attention on an object in motion and follows it, e.g., watches a toy roll away after it falls	<ul> <li>Provide interesting and age-appropriate toys and objects for exploration</li> <li>Engage and interact with the child frequently during the day; follow the child's lead during play</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
7-18 months	Spatial Relationships	Children begin to use trial and error in discovering how objects and people move and fit in relationship to each other.	<ul> <li>Pluts objects in a bucket and then dumps them out; repeats this action</li> <li>Begins to identify physical obstacles and possible solutions when moving around, e.g., crawls around a chair instead of under it</li> <li>Drops objects such as toys and watches them move</li> <li>Discriminates between small and large objects, e.g., uses one hand or two hands in a variety of ways</li> </ul>	<ul> <li>Provide different types of objects that the child can move around, e.g., toy cars, balls, nesting cups</li> <li>Create safe play spaces in which the child can crawl, climb, and move around</li> <li>Provide time outside for the child to explore and interact</li> </ul>
16-24 months	Spatial Relationships	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.	•Understands words that characterize size, e.g., big, small •Uses simple trial and error to complete simple puzzles, e.g., matches piece, orients and attempts to turn to make a puzzle piece fit •Recognizes the proper direction of objects, e.g., will turn over an upside-down cup •Begins to understand simple prepositions, e.g., under, in, behind	<ul> <li>Narrate while assisting the child in figuring out a solution, e.g.,</li> <li>"Let's try to turn the puzzle piece this way"</li> <li>Provide the child with opportunities to problem-solve with and without your help; minimize the possibility for the child to become frustrated</li> <li>Start to ask the child to do complete simple actions that include a preposition, e.g., "Can you put the book on the table?"</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
21-36 months	Spatial Relationships	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.	objects •Recognizes where his or her body is in relation to objects, e.g., squeezing in behind a chair •Completes simple puzzles with less trial and error, e.g., can	<ul> <li>Provide puzzles and other fine-motor activities for the child to engage in</li> <li>Engage in movement activities that promote balance skills</li> <li>Describe everyday objects by size, shape, and other characteristics.</li> <li>Create a safe obstacle course where the child can run, climb, crawl, scoot, and maneuver his or her body</li> </ul>
0-9 months	Symbolic Thought	Children use observation, exploration, and social interaction to learn about objects, actions, and people.	<ul> <li>•Uses senses to explore objects, e.g., observes, mouths, touches</li> <li>•Interacts with caregiver(s) and the environment</li> <li>•Physically manipulates objects, e.g., twists and turns toys, drops items</li> <li>•Combines objects in play</li> <li>•Locates an object that has been partially hidden</li> </ul>	<ul> <li>Create an inviting environment for the child to explore; change materials and toys in the child's environment on a regular basis</li> <li>Interact and socially engage the child often throughout the day,</li> <li>e.g., use diapering and feeding times to playfully communicate with the child</li> </ul>

Follow the child's lead during play
Provide toys and experiences that have a variety of colors, textures,

sounds, and smells

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
7-18 months	Symbolic Thought	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.	•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	<ul> <li>Respond enthusiastically when the child demonstrates new uses for objects he or she has discovered</li> <li>Play with the child often; follow his or her lead</li> <li>Imitate the child during play, e.g., hold up a pretend phone to ear</li> <li>Name objects and people found in the child's environment</li> </ul>
16-24 months	Symbolic Thought	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.	<ul> <li>Pretends one object is really another by using substitution, e.g., a napkin for a baby's diaper</li> <li>Finds objects after they are hidden in close proximity</li> <li>Engages in pretend play with familiar objects and experiences, e.g., places baby doll in stroller and pushes the stroller</li> <li>Identifies or names his or her drawings, e.g., points to scribble and says, "mama and dada"</li> <li>Communicates labels to familiar objects and/or people, e.g., says "dog" when seeing four-legged animals</li> </ul>	<ul> <li>Engage and play with the child; follow the child's lead</li> <li>Narrate the child's play, e.g., "Are you taking the baby for a walk to the store?"</li> <li>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</li> <li>Encourage and praise the child as he or she shares accomplishments</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
21-36 months	Symbolic Thought	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.	•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	<ul> <li>Interact with the child during pretend play and follow his or her lead</li> <li>Ask open-ended questions while playing with the child in order to expand on thoughts and language</li> <li>Continue to label and narrate actions, objects, and experiences for the child</li> <li>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</li> </ul>
0-9 months	Creative Expression	Children build the beginnings of creative expression through everyday interactions with their caregivers.	<ul> <li>Actively explores sensory objects in the environment</li> <li>Participates in interactions with caregiver(s), e.g., observes, smiles, coos</li> <li>Demonstrates interest in sounds, songs, music, and colors</li> <li>Listens and moves to music</li> <li>Manipulates objects, e.g., turns, shakes, bangs</li> </ul>	<ul> <li>Provide the child with choices for exploration; follow his or her lead</li> <li>Interact in a meaningful manner with the child throughout the day</li> <li>Make music part of every day; sing songs with the child</li> <li>Provide toys and activities that encourage movement, e.g., a toy drum, a tunnel to crawl through</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
7-18 months	Creative Expression	Children increasingly engage with their caregiver(s) and show enjoyment in activities and interactions that focus on music, movement, building, and play.	<ul> <li>Enjoys familiar songs and word rhymes</li> <li>Begins to use symbolic play while interacting, e.g., holds a play phone to ear and has a "conversation" with grandma</li> <li>Begins to stack large blocks with or without support</li> <li>Participates in music activities by performing some accompanying hand movements</li> <li>Engages in art activities such as coloring or finger painting</li> </ul>	<ul> <li>Sing songs with the child and model any accompanying gestures</li> <li>Provide the child with different options for creating artwork</li> <li>Demonstrate enjoyment of music and actively participate with the child as he or she sings</li> <li>Encourage the child to explore different materials while playing</li> </ul>
16-24 months	Creative Expression	Children continue to show increasing ability as they engage with their caregiver(s) in music, movement, building, and play activities.	•Imitates basic movements during an activity, e.g., places beanbag 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	<ul> <li>Provide props and instruments that the child can use during music and movement</li> <li>Engage in conversations about what the child is creating during art activities</li> <li>Display the child's artwork where he or she can see it and show it off</li> <li>Provide play experiences both outdoors and indoors</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
21-36 months	Creative Expression	Children initiate and engage in music, movement, building, and play activities to interact with others and express ideas, feelings, and emotions.	•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	<ul> <li>Expose the child to music and dance from different cultures and backgrounds</li> <li>Provide opportunities for pretend play in which the child can dress up as various characters, e.g., a cowboy, firefighter, or princess</li> <li>Encourage the child's creative expression by genuinely praising his or her efforts</li> <li>Participate in the child's play; dress up, pretend, and play with the child</li> </ul>
0-9 months	Logic & Reasoning	Children begin to build awareness and use simple actions to have an impact on objects and people in their environment.	•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	<ul> <li>Participate in social interactions the child initiates</li> <li>Provide interesting toys that can be easily manipulated, e.g., squeezed, shaken, rattled</li> <li>Play turn-taking games with the child, e.g., peek-a-boo</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
7-18 months	Logic & Reasoning	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.	•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	<ul> <li>Allow the child to explore a variety of toys.</li> <li>Narrate the child's play: "Look how hard you rolled that ball"</li> <li>Allow the child freedom to try new things with some support</li> <li>Demonstrate and explain the relationship between objects and/or people</li> </ul>
16-24 months	Logic & Reasoning	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.	•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	<ul> <li>Provide the child with experiences that demonstrate cause and effect, e.g., objects that produce sounds after performing a specific action</li> <li>Show and explain what objects do and what they are used for during everyday interactions</li> <li>Narrate sequencing found in everyday interactions, e.g., "First we will fill the tray with water, then we will put toys in it."</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
21-36 months	Logic & Reasoning	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.	<ul> <li>Recognizes actions and objects and can generalize meaning,</li> <li>e.g., sees someone opening an umbrella and can attribute that</li> <li>to the fact that it may be raining</li> <li>Makes a prediction of what will happen next in a sequence of</li> <li>events</li> <li>Applies past experiences to new situations</li> <li>Expresses cause and effect in certain situations,</li> <li>e.g., "I fell down and now I have a boo-boo."</li> </ul>	<ul> <li>Use stories and everyday conversations to ask the child to predict what may happen next</li> <li>Use child's past experiences to bridge to new experiences, e.g., using chalk on the sidewalk to scribble instead of crayon and paper</li> <li>Discuss and experience cause and effect in everyday interactions, e.g., add food coloring to the water table and show the child what happens</li> </ul>
0-9 months	Quantity & Numbers	Children are developing an understanding of quantity and number concepts as they explore and interact with objects and people in their everyday environment.	•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	<ul> <li>Respond promptly and thoughtfully to the child when he or she signals needs</li> <li>Provide multiple objects and/or materials for the child to explore</li> <li>Encourage the child to explore objects one by one, e.g., hand them one block and say "one"</li> <li>Play with the child; count out loud as you hand him or her objects</li> <li>Engage in simple finger plays with the child</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
7-18 months	Quantity & Numbers	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.	•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	<ul> <li>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."</li> <li>Narrate as the child gestures, e.g., "so big" as he or she raises arms in air</li> <li>Sing songs that incorporate numbers</li> </ul>
16-24 months	Quantity & Numbers	Children recognize various quantities of objects and people, and begin to accurately match number words to the correct amount.	•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"	<ul> <li>Use numerical concepts in everyday activities, e.g., "Would you like one cracker or two?"</li> <li>Use teachable moments, e.g., ask the child to pass you one crayon from the pile during art</li> <li>Acknowledge the child's attempts to use numerical concepts in everyday interactions, e.g., "Yes, you are right, you are two years old!"</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
21-36 months	Quantity & Numbers	Children use language to demonstrate a basic understanding of number representation and quantity identification.	<ul> <li>•Understands progressive number order, e.g., recites the number series to ten</li> <li>•Begins to count objects; may count objects twice and/or skip numbers</li> <li>•Begins to identify quantity comparison, e.g., "Which group has more blocks?"</li> <li>•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</li> <li>•Uses descriptive words when communicating about others, e.g., "She ran fast," "He is short," "Look how far away I am"</li> </ul>	<ul> <li>Recognize that experience and exposure are factors that influence whether or not the child is familiar with numbers</li> <li>Engage the child in participating in word rhymes that incorporate numbers and math</li> <li>Use descriptive words when interacting with the child, e.g., "You are so tall!"</li> </ul>
0-9 months	Science Concepts &	Children use social interactions along with their five senses to discover and explore the world around them.	<ul> <li>Observes people and objects in his or her environment</li> <li>Engages in social interactions with familiar adults</li> <li>Actively explores new objects found in the environment, e.g., mouths, pats, grasps</li> <li>Uses all of his or her senses to explore and discover new things, e.g., reaches out to touch rain or snow</li> </ul>	<ul> <li>Create an inviting environment for the child to explore; change materials and toys in the child's environment on a regular basis</li> <li>Follow the child's lead during play</li> <li>Provide toys and experiences that have a variety of colors, textures, sounds, and smells</li> <li>Allow the child to explore his or her outdoor environment, e.g., go on stroller walks, have the child crawl on</li> </ul>

grass

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
7-18 months	Science Concepts &	Children use all of their five senses to purposefully collect and act on information received through interactions with their environment.	•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	<ul> <li>Provide opportunities for the child to explore and play outside</li> <li>Engage in conversations with the child about nature, animals, and other living things; introduce books that cover those topics</li> <li>Provide the child plenty of opportunities for sensory play, e.g., pudding, shaving cream, water, sand</li> </ul>
16-24 months	Science Concepts &	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.	•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!"	<ul> <li>Provide opportunities for the child to engage in sensory play</li> <li>Talk to the child about different animals, their size, where they live, and what sounds they make</li> <li>Allow the child to explore flowers, insects, and other living things while outside</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
21-36 months	Science Concepts &	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.	•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	<ul> <li>Begin to ask the child "w" questions: what, where, when, and why</li> <li>Incorporate science and inquiry questions in the child's daily routine</li> <li>Provide activities and experiences that allow the child to problemsolve and reach conclusions, e.g., building, experimenting with changes from solids to liquids</li> <li>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</li> </ul>
0-9 months	Safety & Well-Being	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.	•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	<ul> <li>Meet the child's needs in a prompt and sensitive manner</li> <li>Respond thoughtfully when interacting with the child</li> <li>Provide a safe, child-proof environment, while providing constant supervision</li> <li>Soothe and comfort the child as needed, e.g., hold, cuddle, rock</li> <li>Interact with the child; sit on the floor with the child and engage in exploration and play</li> </ul>

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
7-18 months	Safety & Well-Being	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.	•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	<ul> <li>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</li> <li>Establish boundaries and limits; remain consistent and firm</li> <li>Provide a safe, child-proof environment, while providing constant supervision</li> <li>Explain to children why certain rules are in place</li> </ul>
16-24 months	Safety & Well- Being	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	•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	<ul> <li>Provide a safe, child-proof environment, while providing constant supervision</li> <li>Model safe practices and behaviors for the child, e.g., do not stand on chairs when attempting to reach for objects</li> <li>Support the child in new situations; allow him or her time to</li> </ul>

touch" when walking by the pretend stove

caregiver(s) to help

manage their impulses.

warm up to new people, objects, and activities

Age	Sub-domain	Age Descriptor	Indicators for children	Strategies for interaction
21-36 months	Safety & Well-Being	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.	•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	<ul> <li>Provide constant supervision and guidance</li> <li>Talk with the child about unsafe situations and what he or she should do to get help</li> <li>Respect the child's expressed fears</li> <li>Establish boundaries and limits; remain consistent and firm</li> </ul>