Introduction to Cognitive Development Domain for Young Infants

Domain Components:
CD1 Approaches to Learning
CD2 Executive Function
CD3 Logic and Reasoning

Here are some important things to know about young infants and their cognitive development.

- They use their senses to explore the environment. They grasp, touch, look, listen and smell things in their world.
- They begin to show awareness that people and objects still exist when they are out of sight and sound (object permanence).
- They begin to use their own movements and actions to solve simple problems or reach goals (e.g., rolls to the side to reach an interesting object.)
- They learn that they can make things happen. For example, if they shake a rattle, it makes noise or if they squeeze a rubber duck it will squeak.
- They need to have positive relationships with adults, secure environments and developmentally appropriate learning opportunities that foster their cognitive development.

By knowing these special things about young infants, families and caregivers can better understand how to promote their cognitive development.

Here is what happens when families and other caregivers support the young infant’s cognitive development:

- They will be curious and willing to try new things.
- They are learning to apply knowledge to new situations.
- They are beginning to hold information in memory.
- They are developing strategies for solving problems.
- They are showing an increasing ability to focus and sustain attention.
Connecting with Young Infants

CD Activity: “The Rattle Game”

Learning Goal: CD2.1 Focuses and sustains attention

You will need: Three rattles of different sizes, shapes and sounds
You and an infant

Before you begin:

- Select a soft area and place the infant so he can see your hands.

Nurturing Ritual!

- Hold one of the rattles in front of the infant and shake it gently.
- Sing a song as you shake the rattle. Try the following to the tune of “Old MacDonald.”
  
  \[
  \text{Rattle, rattle, shake, shake, shake, E-I-E-I-O}
  \]
  
  \[
  \text{Rattle, rattle, shake, shake, E-I-E-I-O}
  \]
- Move the rattle slowly to one side and sing the song again.
- Continue to move the rattle to different places in the room and watch as the infant moves his head and his eyes in the direction of the sound.
- Try it again with another rattle sound.
- Stop the activity when your notice that the infant is getting tired or losing interest.

At another time, try this:

- Gain the infant’s attention by describing what the infant is seeing. For example, say, “Nina, you are looking at me. I’m going to move. Can you follow me?”
- Continue to talk while moving out of the infant’s visual path.
- Observe to see if the infant is moving any part of her body to visually locate you. If she does, reinforce this by saying, “Nina, you can still see me. You moved your head so you could see me.” If she did not respond, move back into her line of vision to regain her attention, then repeat the activity three or four times.
Connecting with Young Infants

CD Activity: “A Sensational Trip”

Learning Goal: CD2.1 Focuses and sustains attention

You will need: You and an infant, time together

Before you begin:

- Kneel or get on the floor beside the infant to look at what he can see at his eye level.
- Think of ways to expand the infant’s view of his world.

Try this!

- Lift up the infant so that he can see out the window. Talk to him about what you see outside. “Look at the pretty red flowers!”
- Carry him through the room and talk about the pictures that are on the wall. “Nicholas, here is a picture of you and your grandmother. She’s holding you in her lap.” “Here is a picture of a dog.”
- Stop in front of a mirror and show him his reflection.

Try this activity!

- Hang a wind chime or windsock indoors where the air from the air conditioner or fan will move it or hang the chime or windsocks securely from a tree or wherever it is easily visible and moved by an outdoor breeze.
- Allow infants to discover the sound or motion on their own, then comment on what they heard or saw.
- Ask an infant who notices the sound, “Can you find what made that sound?” or to an infant who notices the windsock blowing, “See how the wind makes that windsock move.”

Teacher Note: A bell can be substituted for a wind chime and a banner or streamer for a windsock.
Connecting with Young Infants

CD Activity: “Is It Still There?”

Learning Goals:  
CD2.4  Holds and manipulates information in memory (*short term and working memory*)
CD3.1  Uses reasoning and planning ahead to solve problems and reach goals (*problem solving*)

You will need:  You and an infant  
A toy or stuffed animal and a blanket

Before you begin:
- Sit on the floor, crossing your legs in a pretzel style and sit the infant in your lap if she is not able to sit alone.
- Show her a stuffed animal or a favorite toy and talk about it with her.  “*Look at this puppy. It has black spots on its body.*”
- Put the toy on the floor and place a blanket over it and ask, “*Where did it go?*”
- Get excited with the infant when she finds it.
- Repeat the game as long as the infant stays interested

At another time, try this variation with a infant who is crawling:
- Use a stuffed animal or toy to play hide and seek.
- Hide the animal as the child watches.
- Encourage the infant to find the toy.
- Get excited and act surprised when the infant finds the toy.

At another time, try this variation with a infant securely fastened in a high chair:
- Place a squeeze toy such as a rubber duck in the tray of the chair.
- Observe the infant paying with the toy. Eventually, he will drop the toy over the side of the tray.
- Ask questions such as “Where did it go?”  “Let’s look for the duck.”  “Look on the floor. Is the duck on the floor?”
- Reinforce your words with actions by making comments such as, “Here is the duck. It was on the floor” as you pick up the toy and hand it back to the infant.
Connecting with Young Infants

CD Activity: “Jack-in-the Box”

Learning Goal: CD1.1 Shows curiosity and a willingness to try new things

(interest in new experiences)

You will need: An infant

Stuffed animal

Plastic container with a lid or an empty oatmeal box with lid

Before you begin:

- Push a stuffed toy into a plastic container or oatmeal box.
- Put the cover on the container.

Try this:

- Sing a short song and open the lid when the song is over.
- Show excitement when you see the animal.
- Observe the infant to see her reaction.
- Do it again and again. Does the infant expect the animal to pop out again when the song is over?

At another time, try this variation:

- Use a commercial Jack-in-the-Box.
- Repeat the steps as listed above
Connecting with Young Infants

CD Activity: “Scarves and More Scarves”

Learning Goals: CD1.1 Shows curiosity and a willingness to try new things
CD1.2 Shows persistence in approaching tasks

You will need: An empty tissue box or a plastic box with a hinged lid that has a small opening
Colorful scarves

Before you begin:

- Tie three or four scarves together and stuff them into an empty tissue box or a plastic box.
- Leave one corner of a scarf sticking out of the box so the infant can see it.
- Place the box on a low shelf or on the floor near where an infant is playing.
- Watch the infant to see if she tries to pull the scarves out of the box.
- Observe the infant’s reaction as she pulls the scarves out the box, especially when she pulls out scarf after scarf.
- Make comments about what the infant is doing. “I see you pulling the scarf out of the box.” “Now what’s happening? There’s more than one scarf in that box. There were three scarves in the box”
- Comment that the box is now empty when all of the scarves have been pulled out of the box.
- Observe to see if the infant attempts to put the scarves back in the box.
- Repeat this activity as long as infants remain interested.

Teacher Notes:

- Provide at least one box of scarves for every two infants.
- Use scarves or strips of fabric of different colors, patterns and textures.
- Use washable scarves and fabric and replace with clean ones each day.