

COGNITIVE DEVELOPMENT IN TODDLERS

According to Piaget, toddlers are in the sensorimotor stage of learning until they turn two years of age. The sensorimotor stage is when the child uses his/her senses as well as his/her motor skills to learn and discover the world. At age three, the toddler enters the preoperational stage, according to Piaget. The preoperational stage lasts until the child is 7 years old and begins to learn concepts, but most of the concepts do not yet make a great deal of sense. For example, the toddler may believe that every Santa Claus they see is the "real" Santa Claus even though they may look different and may be just a block apart in location.

Toddlers learn and gain knowledge and information by doing everyday routine things: playing, eating, bathing, dressing, etc. Even the sound of water going down the drain in the bathtub is new and fascinating to a toddler. Parents and caregivers need to take advantage of everyday events to help the toddler learn. Providing opportunities for the toddler, who is striving desperately to become independent, to help care for himself/herself and to learn simple household tasks; e.g., having the child make his/her bed or help to make it, having the child dress himself/herself, having the child brush his/her teeth, having the child help do the dishes or help make a meal.

One way to assist a toddler in completing assigned tasks is to make a helping chart. They love charts that are made out of pieces to a character with its body pieces representing a different job. For example, the head could represent the child washing his/her face and brushing his/her teeth; the body section could represent the child dressing himself/herself and the arm could represent making the bed. As the child completes each responsibility or job, he/she can put each magnet piece on the back on the fridge until the figure is put together.

Providing opportunities for sensory stimulation will enhance a toddlers cognitive development. Activities that stimulate the sense of sight help the toddler learn about colors as well as lightness and darkness.

POSSIBLE ACTIVITIES:

Looking at objects: Ask the child to look at a certain place. It may be in the refrigerator or out of a window. Tell the child to pick out an object or two. Talk about the characteristics of the object with the child. Color, size, shape, function, and sounds it makes are some ideas. Talk about where the child may have seen the object another time or where you might see the object at a different time.

Dark and light: Use a shoe box with a lid and cut a hole in the side of it. Put an object inside the box. Put the lid on the box and ask the child to look inside the hole and tell you what is there. Explain that he/she cannot see the object because it is dark. Take the lid off the box and ask the child to look inside the hole. Explain that the child can see the object because it is light. Talk to the child about other instances where it is dark and light.

Photo album: Look through pictures in a family photo album. Talk to the child about who is in the pictures. Identify names and the relationship with the child. The child may be able to point out specific people, animals, and familiar items.

The sense of **TOUCH** helps the toddler learn the difference between rough, smooth, soft, or hard surfaces.

POSSIBLE ACTIVITIES:

Recognizing objects by touch: Put three or four familiar objects into a pillowcase or bag. Pull an object out of the bag. Ask the child to name the object. Show the child how to feel the object. As the toddler feels the object, the adult should explain and describe the texture. For example, a ball may feel soft and round. Continue this process with the other objects. After feeling all the objects, put them back in the bag. Let each child identify an object in the bag without peeking.

Feeling tour of the yard: Help the toddler find smooth and rough objects in the yard. Some textures might include smooth and rough rocks, a smooth blade of grass, rough bark, and a smooth rose petal. A sample of each can be brought inside for more feeling and describing.

Feeling boards: Make three to five matching pairs of boards by gluing materials to small blocks of wood. Materials may include sandpaper, felt, a smooth plastic sheet, fur, etc. The materials chosen should have very different textures. Have the toddler feel and look at each surface as you describe the texture. Put one member of each pair into a bag. One at a time, the toddler should match each block in the bag with the same block outside of the bag. Praise the toddler when he/she gets a good match. If the toddler does not get a match, encourage him/her to try again.

The sense of **TASTE** helps the toddler learn about salty, sour, sweet, and bitter tastes and foods.

POSSIBLE ACTIVITIES:

Sweet and sour: Give the toddler a sugar cube and refer to it as something sweet. Have the toddler taste lemon juice mixed with water. Refer to it as sour. (Use equal parts of lemon juice and water. Pure lemon juice is too sour and can be hard on the teeth.)

Sweet and salty: Let the toddler taste a cookie, then a salty cracker. Use the correct terms to define the taste of each.

The sense of **HEARING** helps the toddler gain language and communication skills as well as learn rhythm and rhymes.

POSSIBLE ACTIVITIES:

Naming sounds: When you notice that a child hears a sound, stop for a moment and listen. Then say, "Do you hear the _____? I hear a _____. Do you hear it, too?" Point in the direction of the sound.

Animal sounds: Sing with the child "Old MacDonald Had a Farm." While doing this, point to pictures of each animal. Start with a few of the toddler's favorite animals and gradually add more.

Which soundmaker? Play with a child while using a bell, a whistle, and a drum. Cover the child's eyes while you make a sound. Ask the child which soundmaker was used. (You could also record sounds on a tape and let the child point to the soundmaker.)

Sound cans: Place a few objects such as paper clips, beads, rice, or sand into separate containers. Tape or glue the containers so that the toddler cannot open them. Have the toddler shake the sound cans to hear the differences between soft and loud sounds.

The sense of **SMELL** helps the toddler recognize familiar items from new items.

POSSIBLE ACTIVITIES:

Select a few familiar objects that have distinct odors. Show the toddler how to smell something by sniffing loudly. First, smell and talk about the smell of each object. Have the toddler close his/her eyes and identify each object by smelling it. If the toddler needs some help, name two objects from which the toddler can choose. For example, "Is this an orange or an apple?"

What's cooking: When cooking a food with a very distinct smell, sniff loudly and tell the toddler what you smell. For example, say, "I smell hamburger frying" or "I smell cookies baking." Later, ask the toddler, "What's cooking? What smells so yummy?"

Using their senses helps toddlers gain and form concepts and ideas about objects and people.

Problem-solving activities help toddlers learn how to solve a situation or problem. Toddlers solve problems in different ways. Sometimes they do it by trial and error. Sometimes they learn incidentally or accidentally. Other times they learn by imitating others.

POSSIBLE ACTIVITIES:

Opening lids: Place a small object in a container with a lid that snaps on. Show the toddler how it works. Let the toddler try to open it. When the toddler has mastered one type of lid, let him/her try a different one. For example, use lids that screw on. (Do not show toddlers or preschool children how a safety cap comes off.)

Drop-in toys: In the bottom of a box, cut a circle large enough for a ball to be dropped through. Show the toddler how to drop balls or other small objects through the hole and then retrieve the objects. (Or simply buy a sorting box.)

Other good problem-solving materials are puzzles, stacking and nesting toys, and playing hide-and-seek.

Activities in which toddlers use large and small motor skills help them develop cognitively. Using these motor skills helps them learn how their body works in relation to other items in the world. They also learn how objects work, like balls and push and pull toys.

POSSIBLE ACTIVITIES:

GROSS MOTOR GAMES

Pick up the ball: As a toddler stands, roll a ball and say, "Pick up the ball." Bend at the waist, showing the child that he/she must bend at the waist before playing this game.

Climb and sit: Place the toddler facing a sofa or a chair. The toddler's hands should be on the seat. Raise the toddler's knee to the sofa or chair and give a slight boost. Turn the toddler if needed. Help should be reduced after a few tries. (If the sofa or chair seems too high for the child, the seat cushion can often be removed. This way, the toddler has less distance to climb.)

Push and pull: These toys aids motor skills of crawling and walking. Push toys seem to be easier because the child can see the toy's action without walking backward or looking back over the shoulder.

Riding toys: Toys that the toddler pushes with the feet or that are mounted and ridden, such as bouncing horses, are good for developing gross motor skills.

FINE MOTOR GAMES

Pounding pegs: A peg and hammer set can help the child coordinate what is seen with the action. Toddlers should use both hands on the hammer to prevent the toddler from getting his/her fingers hit.

Pop beads: Unsnapping (and later, snapping) pop beads helps fine motor control. Toddlers love to wear pop beads as necklaces or bracelets. (These make a safe necklace because they pop open if they get caught on another object.)

Blocks: Building a tower with three to five blocks and knocking it over is very fun for toddlers. As they grow, they will build taller towers. Balancing the blocks in towers requires good fine motor control.

Make a face: Putting the eye, nose, and mouth on a felt face can be fun. The parts of the face are made from felt with Velcro backing. Because the pieces are small, the toddler should be supervised during play.

After discussing this information, use the "Cognitive Activities for Toddlers" worksheet to have the students design and create one sensory stimulation activity, one problem-solving activity, and one motor skill activity. These activities should be geared to the toddler-age child. Students may work in groups of five or six. Arrange for 8-15 toddlers to visit your class and have the groups of students play the game they created with the toddlers.