

TOYS AND MATERIALS THAT SUPPORT COGNITIVE DEVELOPMENT

There are many types of toys that can help promote early cognitive development. This list provides some examples of common classroom toys and how to use them to support children’s flexible thinking, experimentation, imitation, and problem-solving, which are important aspects of cognitive development.

Building and Construction Toys

Building and construction toys, such as blocks and sets of connecting pieces, promote cognitive development. They are considered “open-ended” toys, which means that children can use the toys to create structures or designs in many different ways. To figure out how to make something stand on its own or how to stack the pieces in just the way they want to, children must pay attention to how the materials fit together, use impulse control to avoid knocking over their construction, and engage in flexible thinking as they move pieces around in different ways. These kinds of toys also allow children to create something different each time they play with them, which helps them to think flexibly.

Infants:

- Blocks
- Stacking tower
- Nesting cups



Toddlers:

- Block sets (wooden, cardboard, foam)
- Connecting block sets (interlocking building bricks, bristle blocks)
- Magnetic building sets
- Stacking tower
- Nesting cups
- Linking toys



Pretend Play Toys

Pretend play toys support cognitive development in many ways. They allow children to make choices about what roles to take on, what situations to act out, and how to interact with props, costumes, or toy figures. Pretend play can stimulate children’s memory for events and activities in their homes or communities, as children sometimes re-enact these events and activities. Pretending also allows them to practice sequencing, as they string together actions to act out a story or play idea.

Infants:

Puppets: Puppets can be used to encourage observation (e.g., “The zebra puppet is black and white and has stripes. Hmm, let’s see if any other puppets have stripes?”) and sensory exploration (e.g., “This puppet is an elephant. Does he feel soft? He has big ears.”) which are both aspects of cognitive development. The teacher can animate the puppet and use it during play to demonstrate skills that babies are not ready to do themselves yet, such as counting objects. The puppet can also be used to encourage the baby to imitate sounds or actions.



Baby dolls and stuffed animals: Teachers can use baby dolls or stuffed animals to model pretend behaviors such as hugging, feeding, comforting, and putting to sleep, as well as encourage older infants to start to imitate these behaviors.

Toy vehicles: Teachers can demonstrate how to push and “drive” toy cars or trucks, make motor sounds (e.g.. “Vroom!” “Beep-beep!”), and encourage older infants to imitate.

Toddlers:

Pretend doctor kits: Doctor kits are often popular with toddlers. Nearly all children have been to the doctor’s office many times and are familiar with common medical exam routines. Pretending to be the doctor encourages toddlers to remember and act out the sequence of events that happen in this setting. Teachers can help children understand what each item in the doctor kit is called, and what it is used for. Teachers can encourage and scaffold pretend play about checking different parts of the body with the appropriate kit item, deciding whether the patient is healthy or sick, and choosing what treatment is needed (Medicine? Bandaid? Rest? A shot?). Incorporate toy animals to pretend to be a vet.

Pretend food/kitchens: Pretend kitchens offer wonderful opportunities for children to engage with math and science concepts such as counting utensils, cups, and plates, pretending to measure ingredients, stirring/mixing/pouring, and talking about concepts such as hot and cold (ovens, stoves, refrigerators, water in sinks). Preparing a meal also follows a sequence, such as setting the table, cooking and serving the food, and washing dishes and putting them away. Finally, pretend cooking allows children to be flexible in their thinking—they can choose to make a broccoli cake or apple soup!



Baby dolls: Playing with baby dolls offers many opportunities to talk about sequence (e.g., “First we need to undress the baby before we wash him.”), encourage imitation (e.g., “How do mommies/daddies help babies go to sleep?”), and encourage persistence and creative thinking (e.g., “The baby is still crying. What shall we try next to help baby feel better?”).

Hats and dress-up clothes: Dress-up clothes and props enhance pretend play and can lead to conversations about what jobs people do and how they do them. Talking with children as they pretend to be a firefighter, a construction worker, a dancer, or a chef invites children to recall and share what they know about these roles. Teachers can then teach new vocabulary words and provide more information during these pretend play activities.

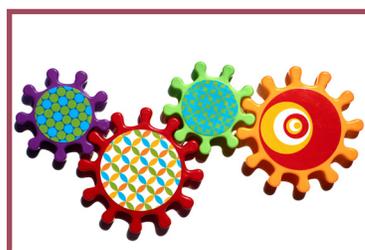


Puzzles and Open-Ended Fine Motor Toys

Puzzles and other fine motor toys help children explore many cognitive concepts. Children have to observe each puzzle piece and then fit it into the correct spot. They have to maintain their attention to the task as they turn the pieces to fit. Shape puzzles and shape sorters can help children explore math concepts such as geometric shapes and sizes. They can also be an excellent opportunity for teachers to model thinking out loud (e.g., “Let’s see, I am going to start with this piece because I know exactly where it goes. Oh no! It doesn’t fit. I will try turning it, let’s see if that will help...”). Lacing beads and pegboards can be used to point out patterns, such as alternating colors of the beads or pegs, as well as talking about math concepts such as longer/shorter and taller/shorter.

Infants:

- Rattles
- Busy gears
- Baby activity centers
- Pop-up boxes



Toddlers:

- Puzzles
- Shape sorters
- Matching games
- Lacing beads
- Peg boards
- Toddler-safe magnets



Cause and Effect Toys

Cause and effect toys—toys on which the child pushes buttons, slides a slider, or turns a handle to make something happen—help children learn about cause and effect, and they promote the development of children’s motor skills. Look for toys where the effect of each action is relatively brief (e.g., a noise or a short musical tune) and not overstimulating (e.g., low intensity lights and sounds).

Infants:

- Busy gears
- Baby activity centers
- Pop-up boxes



Toddlers:

- Magnetic maze
- Musical instruments
- Ball drop toys



Sensory Exploration Toys and Materials

Sensory play is part of the foundation for cognitive development. Children need opportunities to explore different textures and substances with their hands in safe, supervised ways. This can be as simple as putting sand or rice into a plastic tub for toddlers to play with, or blowing bubbles for infants. Here are some more ideas:

Infants:

- Bubbles
- Touch-and-feel books
- Finger painting (try with whipped cream or pudding)
- Water play (with sponges, bath toys, plastic cups, and funnels)



Toddlers:

- Water play (with water-safe toys, water wheels, ice cubes, food coloring, or dish soap for bubbles to create added interest)
- Bubble wrap
- Finger paint (try with shaving cream or pudding)
- Play dough
- Cornstarch and water
- Sensory tables or bins: These can be filled with many kinds of materials for children to explore besides water, including grains (rice, corn kernels, oats), sand, soil or mulch, pine cones and pine needles, leaves, shaving cream, and other items. Children can fill and dump materials using cups, bury and uncover objects, and play with funnels.



Household Items and Natural Materials

Everyday objects that are normally found in the home and classroom, and natural objects found outside, can be used to help children make sense of their world by examining, categorizing, and discovering.

Infants and Toddlers:

- **Household kitchen materials:** Big wooden and plastic spoons provide opportunities for infants to explore by grasping, mouthing, and banging. Plastic storage containers, pans, and plastic cups can be used for pretend play, to make a drum, or as building materials to stack and nest. Toddlers can learn how to put lids on and take them off, and teachers can compare their shapes and sizes. Muffin tins can be used to sort and count objects in each compartment. They can also be used for pretend cooking, along with other kitchen items.
- **Teacher-made sensory bottles:** Fill clean, empty water bottles with various materials, and then seal. Use dry materials, such as small beads, rice, or beans, to make a shaker. Use liquids, such as water and oil with glitter or small beads, to make a visual sensory toy. Teachers can narrate children's actions with the bottles and compare and contrast their features (e.g., loud or quiet; different colors; fast and slow movements)
- **Sensory floor:** Tape down different textured materials for babies to crawl on, such as sandpaper, bubble wrap, soft cloth, and sticky paper. Teachers can then describe these textures and experiences to babies as they explore them.
- **Paper towel rolls:** There are many ways to use these! They can be used in pretend play as binoculars or telescopes, drumsticks, swords, or microphones. They can also be taped together to make a tunnel for a small ball or pom-pom to travel through.
- **Cardboard boxes:** A big box can be used to climb in and out of, and to pretend it is a house, a cave, or a spaceship. It can be used for a game of peek-a-boo. Attaching several boxes together can create a maze or tunnel for children to crawl through. Smaller boxes can be used to build or stack and knock down.
- **Grass, plants, and trees:** Take babies outdoors and let them touch and gently explore these natural objects. Encourage toddlers to feel the leaves and petals, and then smell the flower and talk about its scent.

