

# BACK TO BASICS

## Manipulatives

Table toys or manipulatives are inexpensive, versatile tools that support children's intellectual, social, language, and physical development. Whether you provide manipulatives in a specific learning center or offer them in every area of the classroom, table toys give children opportunities to focus and concentrate in solitary play, develop small muscles in their hands, and improve hand-eye coordination.

Manipulatives include puzzles, table games, and construction, matching, and pattern toys. Each category invites exploration and discovery.

Use these guidelines to provide successful experiences with manipulatives in early childhood classrooms.

- Position the manipulatives center in a quiet area of the classroom. Provide a small table, chairs, and storage shelves.
- If children use manipulatives on the floor, offer large carpet squares for their work. The carpet will help children keep pieces together and facilitate cleanup.
- Put different toys or collections of materials in separate, clearly labeled boxes, baskets, trays, or plastic bins.
- Give children access to a variety of table toys. Include self-correcting materials like puzzles, lotto games, nesting boxes as well as open-ended toys like sewing cards, stringing beads, and construction bricks.
- Select toys made of different materials. For example, offer rubber, wooden, and cardboard puzzles so children can experience different textures as they play.
- Watch children while they work and evaluate their skills before you buy or make new manipulatives.
- Give children time to explore and practice. Allow for failure, fresh attempts, and endless repetition of a new skill.

- Rotate manipulatives so there are always new toys for children to discover.
- Provide for a range of skills in each category. For example, the 4-year-old classroom puzzle shelf might include 10-piece inset puzzles, frameless jigsaw puzzles, pictureless rubber puzzles, and large floor puzzles.
- Maintain manipulatives to minimize wear and tear. Cover paper and cardboard games with clear, adhesive-backed plastic. Replace missing puzzle pieces. Encourage children to return toys to their proper bins and storage shelf. Promptly remove toys that are broken or have missing pieces.

### Table toy basics

**Puzzles:** Wooden, rubber, and cardboard puzzles; floor puzzles; stacking rings; and feel and smell guessing games

**Table games:** Visual and auditory lotto, matching cards, concentration games, simple board games, picture and number dominoes, and checkers

**Construction games:** Bristle blocks, small wooden table blocks, and locking bricks; interlocking shape and gear boxes; self-help boards with clothes fasteners or door latches; and sewing cards

**Matching games:** Colored cubes, counting bears, plastic lids, buttons, keys, nuts and bolts, flip books, and sorting boxes

**Pattern toys:** Pegboards, geoboards, parquetry blocks, stringing beads, nesting boxes, cylinder stacking boards, and attribute blocks



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This is the first of several pages of development information. Look for each one, printed on cardstock for durability, in our upcoming newsletters; we encourage you to collect each one for your files.

# Manipulatives

At first glance, activities such as stringing beads and putting together puzzles would seem to be about improving muscle control in the hands and developing eye-hand coordination. Certainly these are important skills for preschool children. Such skills form the foundation for later hand skills, such as writing, drawing, using a computer keyboard, and playing a musical instrument.

But manipulative activities do much more. Understanding the form and function of manipulatives can help care givers and teachers strengthen all areas of children's development.

## Manipulative Learning Goals

### *Physical development*

- Strengthen fine-motor control
- Enhance eye-hand coordination
- Refine visual discrimination
- Establish book handling and writing skills

### *Cognitive development*

- Develop concepts of color, size, and shape
- Classify and sequence objects in logical ways
- Learn number concepts
- Develop matching and pairing skills

- Enhance creativity

### *Social and emotional development*

- Gain experience in working in small groups
- Learn to work cooperatively with others
- Develop self-discipline
- Stick with a task to completion
- Be willing to take risks
- Develop self-esteem

(Adapted from *Room to Grow*, 1995)

## Ages and Stages of Manipulative Play

### **Child's Age: Infants**

*Typical materials:* rattles, large plastic lids, squeeze toys, wooden spoons, butter tubs, nesting and stacking toys.

*Comments:* Wash and disinfect daily. Vary textures for sensory stimulation. Caution: No beads or small items that can cause choking.

### **Child's Age: 1-2 Years**

*Typical materials:* nesting and stacking toys, puzzles of 2 to 5 pieces with knobs, pegboards with few large pegs, lightweight blocks 2 to 4 inches on a side, plastic containers with screw-on lids, baskets and other containers with handles to carry around, little trucks and other small toys to fill and dump from containers, simple matching and sorting materials, play dough.

*Comments:* Wash and disinfect daily if toys are explored by mouth. Provide manipulatives because children cannot share. Caution: No beads or small items that can cause choking.

### **Child's Age: 3 Years**

*Typical materials:* button and zipping frames, 1-inch beads to string, pick-up sticks, magnetic boards, Bristle Blocks™, small wooden blocks, puzzles of 6 to 12 pieces, colored cubes, pegboards, counting bears, keys, large buttons, nuts and bolts, collections of natural materials such as shells and rocks, matching and lotto games.

*Comments:* Check materials regularly for signs of wear. Limit number concepts to 1 through 5. Encourage children to match and sort items by color and shape.

### **Child's Age: Preschool 4 to 5 Years**

*Typical materials:* same as for 3-year-olds but also sewing and lacing cards, 1/2-inch beads to string, puzzles of 12 to 50 pieces, number and letter puzzles, parquetry blocks, geometric shapes, dominoes, color and picture bingo, card games like Concentration™, board games like checkers.

*Comments:* Expand number concepts up to 10. Encourage children to sort items by size and order them in sequence. Offer card and board games based more on chance than strategy with few, simple rules. Consider that children bring a wide range of abilities and interest because of differences in development and home environment.

