Cognitive Development COMPONENT 2: MATHEMATICAL THINKING AND EXPRESSION

SUGGESTIONS FOR ENRICHING THE ENVIRONMENT

- Provide counting, number, and shape books. Include books that encourage children to interact and engage with the book (varying textures, lift flaps, push a button, etc.).
- Offer toys or objects with *one-to-one* relationships (containers with lids, markers with tops).
- Provide toys that have incremental sizes (nesting cups or stackable rings).
- Set up an area in a space where children, three and older, can play with a collection of mathematic *manipulatives*. This may include Unifix® Cubes, rods, pattern blocks, 2- and 3-dimensional shapes, or a balance scale with counting bears.
- Provide many opportunities for children to play with blocks. While they are playing, talk with children about the size of the blocks, the shapes they are using, and how two blocks can be put together to make another shape.
- Set up areas where children can make shapes out of playdough. Talk with children about the names of the shapes they are making.
- Set out trays that children can use to sort toys or blocks according to size or shape.
- Provide an assortment of objects in the mathematics areas that children can use to make patterns, such as counting bears, small cars, and blocks.

- Offer materials in the art area that encourage children to create patterns (3 colors of washable stamp pads).
- Provide a water table or large plastic container with water or sand where children can play with measuring cups and containers of varying sizes. Talk about which containers hold more, less, and the same amount.
- Make a number line with the children by writing numbers in order from 1 to 10 on a long sheet of paper. Keep the number line up in the room and use it when singing number songs, counting in other languages, etc. Make another number line that can be used on the floor for children to stand on and line up objects (perhaps using a strip of shower curtain or wide colored tape).
- Set up centers that encourage children to interact and work together so that more skilled peers can model how they are using math.

