Cognitive Development COMPONENT 3: SCIENTIFIC EXPLORATION AND KNOWLEDGE

SUGGESTIONS FOR ENRICHING THE ENVIRONMENT

- Include toys that allow children to experiment with cause and effect (knobs that twist to make a sound or levers that slide open to make an object appear).
- Arrange the environment to encourage exploration. For young children who are not yet able to roll over or search for desired toys, adults may need to help them find or hold these items.
- Use moving objects to attract young children's attention and stimulate interest. Hang mobiles, wind chimes, or plants where children can watch them move, as well as enjoy their color and shape.
- Include different textures and surfaces for children to explore (furry material, smooth silk, bumpy sandpaper, bubble wrap taped to floor, or hard plastic).
- Provide a wide range of *hands-on* experiences so that children are able to actively explore their environment.
- Integrate science themes and materials into dramatic play (stethoscopes, examples of x-rays, etc. to create a dramatic play theme of hospital to allow children to learn about how their bodies work).
- Add several different types of magnets to the science area. Also add different kinds of materials that will and will not be attracted by them.
- Provide toy vehicles or different size balls for children to play with in the block area, along with ramps and other accessories.

- Find or purchase animals such as caterpillars or tadpoles.
 Create an indoor environment for them and *observe* their life cycles.
- Set up water and sand tables or a large plastic containers of water and sand where children can play with various objects, such as funnels, cups, and other toys to scoop, pour, fill, and dump.
- Set up a recycling area in the room where children can put paper scraps and sort other recyclables by type.
- Include opportunities to play and experiment with mixing colors, using different types of paints, adding colors together, adding white, etc. Ask children to describe what they have noticed ("Oh look, I made orange when I mixed yellow and red!").
- Provide a science discovery area where children can explore a collection of *open-ended materials* (pinecones, shells, branches, leaves, rocks, plants) and use science *tools* (magnifying glasses, balance scales, levers, eyedroppers, sieves, and simple microscopes). Include science materials throughout the indoor and outdoor environments. Modify simple tools when needed to make them accessible to all children in the group.
- Provide a variety of natural materials (smooth stones, shells, pinecones, acorns) that children can *investigate*.
- Add books with real pictures of animals and practice making animal sounds together. Talk about the animals ("The goat is furry and makes a sound like this, 'M-a-a-a-a-a."").
- Include books about night and day, stars, sun, moon, space and seasons and weather.