Sensory Experiences Can Be Messy Fun
By Angela Carroll

Sticky, slippery, gooey, heavy, bumpy...that's what sensory experiences are made of. Learning and retention improve depending upon how many of our senses are engaged. Many of our favorite memories involve multiple senses. When thinking about my grandma, for example, I remember the smell of the flowers in her garden; I can see her wearing her favorite outfit; I remember how her gooseberry pie tasted; and even how the sofa felt.

Sensory activities provide children with another meaningful avenue for learning. Sensory tables or several tubs rotated regularly with wondrous sensory materials are worthwhile investments for hours of learning, exploring, and fun. Because children learn best by having "hands on" experiences with materials, sensory experiences are vital to young children's learning. Imagine trying to teach a group of four-year-olds about melting by having them watch an ice cube melt in your hand or as a grown up, learning how to use a new computer program without actually working on it!

While sensory materials are very rewarding for young children, they also present unique challenges for teachers. The rest of this article provides insight into the different types of learning that occurs during sensory experiences, activity and materials ideas, and practical tips for using sensory materials.

Cognitive Development
As children experiment with different sized containers in cornmeal or sand, they develop math skills such as size, conservation, counting, timing (how long it takes the sand to sift versus. the dirt), matching (finding the same size or shape beans or buttons), and classifying and sorting (what are buttons, beans, macaroni). As children manipulate the materials they learn to understand concepts such as more/less, full/empty and sink/float.

Science concepts such as cause and effect (what happens when water is added to dirt), gravity (water comes down the funnel not up), and solid to liquid (cornmeal and water mixture) are also explored.

Children have the opportunity to work on their problem-solving and decision-making skills as they determine how they are going to use the materials. For example, children decide how to build a boat that will float, how to turn the whipped cream green, or how to make the sand stick together.

Language Development
For children to appreciate and fully utilize their language skills, they must have experiences interesting enough to talk about. Sensory experiences are exciting because each child can use the materials differently. Children also develop pre-writing skills as they pour, spoon, grasp, and work on eye-hand coordination tasks as they use the materials.

Social and Emotional Development
Sensory experiences provide children with the opportunity to feel good about their decision-making skills - they control their actions and the experience. Self-discovery occurs as children become eager scientists. They take pride in their predictions, make observations, and respond to their findings. In addition, children learn to cooperate and work together around the sensory table. As the children work together or side-by-side, they learn to understand someone else's viewpoint. The children also have the opportunity to express themselves and become confident in sharing their ideas with others. Children need an opportunity to try out their emerging concepts about their world in a safe environment as well as have appropriate outlets for relieving tension. Pounding, squishing, feeling water through their hands are all ways of staying in contact with feelings while learning to control what he does about them.

Physical Development
Children reinforce and practice their small motor skills while pouring, measuring, stirring, whisking, and manipulating the materials. They learn to control their bodies and give their bodies directions to accomplish tasks as they explore. Gross motor skills are refined as children explore, usually outside, with running through a sprinkler, examining surfaces with hands and feet, or foot painting.

Creative Development
Sensory experiences provide open-ended opportunities where the process is more important than the product - how children use the materials is much more important than what he makes with them. Using creative thinking skills and expressing one's creativity are important self-esteem builders.
Mediums and Materials
Supplies for sensory exploration are usually easy to gather and inexpensive. The following lists provide suggestions for mediums to fill your sensory table or tubs with and materials to add to the experience. Select items that complement your curriculum, are of interest to the children, and are safe for the age of the children involved.

Mediums
Water
Sand (dry and/or wet)
Dirt (dry and/or wet)
Cornmeal
Rice
Macaroni
Soybeans
Sawdust
Cornstalks
Dried beans
Fingerpaint with additives (sand, glycerin, sawdust)
Homemade sieves (poke holes in foam trays)
Fingerpaint in sealed plastic bags
Scents (almond or mint extract)
Shaving creme (not mentholated)
Playdough
Clay
Confetti
Putty
Whipped Cream
Foam pieces

Materials
Basters
Whisks
Waterwheels
Ice cubes (add food coloring)
Tongs
Plastic tubing with stoppers
Aquarium rocks
Shaped sponges
Jelly worms (the kind used for fishing)
Seashells
Whipped soap flakes
Food coloring
Wooden blocks
Cooking utensils (measuring cups, spoons, funnels, etc)
Plumbers' joints and pipes
Gelatin molds
Combs
Vehicles
Funnels and sifters
Different kinds of bowls and containers
Cardboard tubes
Plastic eggs
Buttons
Spools
Dollhouse furniture
Dishwashing detergent
Rocks and pebbles
Ping-pong balls
Straws
Pump and squeeze bottles
Corks
Wind-up bath toys
Buckets and pails

Recipes for Sensory Materials
Magic Goop
1. Mix 1 part cold water and 3 parts cornstarch with hands in the sensory table or bus tub.
2. If the mixture doesn't dissolve in your hands, then add more water. If the mixture is too runny, add more cornstarch.
3. Store in an open container and leave to dry; the mixture will solidify. To use again, add water and mix to the desired consistency. It will last indefinitely when stored properly.

**Perfect Putty**
1. Mix 1 part liquid starch and 2 parts white glue. Experiment with the amounts until it reaches the consistency of putty.
2. The more glue that is added, the more flexible the material; the more liquid starch added, the more brittle the putty will become.
3. Refrigerate in an airtight container to store; it usually doesn’t last more than a few days.

**Helpful Hints**
- Use a vinegar and water solution to quickly clean up shaving creme or try a large Styrofoam drinking cup - the shaving cream will adhere to the outside of the cup as you move it across the table surface in a circular motion.
- To avoid slippery and messy floors under the table, add an indoor/outdoor carpet or doormat a little bigger than the table. It can be rolled up and shaken outside for easy clean up and also dries easily.
- Plan to control the amount of mess (using a floor covering or smocks), leave enough time for clean-up and talk with the children ahead of time about the number allowed at the table at one time.
- Providing enough time, space and materials will help prevent a lot of problems and also encourage the children to be as independent as possible.
- Be certain that all materials are safe. Never use any breakable materials or items that present a choking hazard for children under the age of four.
- To optimize the learning experience, don’t answer questions too readily. Encourage the children to experiment and find out the answer themselves or to get assistance from their neighbor.
- Carefully consider the use of foodstuffs (cornmeal, beans, macaroni, dried corn, etc.) as it pertains to your community. In some regions and cultures the use of food items as play materials may be offensive.

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