

Playing with Sand or Water: An Educational Activity

As early childhood educators, we know that playing can be a vehicle for learning. With skillful direction from a teacher and the use of interesting containers and toys, children can have creative and educational experiences with sand and/or water.

Think of all the things children can learn by investigating the properties of water or dry sand. These discoveries expand even more when water is added to sand or dirt. But it is the teacher's key questions that ignite the discovery process: "Which weighs more, dry sand or water?" "Which of these objects do you think will float? A marble, a cork, a leaf? Try them and see what happens. Lets make a chart with each object and mark whether or not it floats." "Will this plastic tea cup float? What happens if you pour water in it?" The teacher's ongoing dialogue creates an atmosphere where children feel comfortable with scientific investigation.

When a teacher encourages it, seashells or cookie cutters can be used to make designs in sand; pretty rocks and sticks can used as to make patterns; castles can be built and moats can be added. When a teacher supplies toy trucks and little plastic people, the children can build roads and towns in the mud. Using scoops, sieves, and funnels is great fun, too.

What great props can be used for playing with sand, water, or both?

- * Things that may or may not float in water: corks, feathers, stones, marbles.
- * Seashells
- * Plastic animals and vehicles
- * Coffee scoops
- * Plastic flowers and plants and flower pots
- * Try using a magnet if the play is outdoors. A magnet will pick up particles of iron in the soil.
- * Magnifying glass
- * A waterwheel or watermill
- * A balance beam or set of simple scales

Practical tips:

- * Make sure that the children are old enough to not put things in their mouths

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- * If you must do this as an indoor activity, put down a large towel or old shower curtain.
- * Use an unbreakable plastic tub. If possible, use a tub within a larger tub to keep cleanup easy.
- * Expect water battles if you add squeeze bottles.
- * Playing with bubbles can be added feature to water play. Bubble formula: 1 quart of tap water, 2/3 cup of liquid dish soap (not the kind for automatic dish washers!), 1/3 cup of glycerin (or light corn syrup).
- * Depending on the activity and whether it is inside or outside, you may need to provide smocks or coveralls. Always make sure that children have a spare set of clothing on hand, just in case.
- * Alternative materials you can use (instead of sand): oatmeal, rice, dried beans.
- * Expect a mess!

What skills and concepts are children developing with this form of play?

- * A child has a practical math lesson in fractions when he pours a cup full of sand into a two-cup container. It explains the concept faster and more clearly than a detailed discussion or drawing.
- * Include a simple scale or balance beam to see which weighs more, sand or water.
- * Fine-motor skills are also being developed as a child washes a tea set or maneuvers a cup full of sand into a sifter. Her eye-hand coordination is also being fine-tuned.
- * As anyone who has sat on a beach knows, sand and water play is soothing. It encourages children to explore and learn about cause and effect. (For example, what happens if I put a sponge in the water? What happens if I then squeeze the sponge?)
- * There is no right or wrong way to play with sand and water (except to throw it out of the basin), so each child experiences success.
- * Hands-on activities like these provide sensory stimulation.
- * Children learn the meanings of "full" and "empty," "deep" and "shallow," "wet" and "dry," "sink" and "float."
- * Children learn that cleaning up can be fun. Squirt a mild baby shampoo into water and have them wash the baby dolls and/or toy trucks.
- * Natural phenomena can be naturally learned. Such things as evaporation, gravity, and basic physics concepts such as volume and propulsion.