

A Letter to Families About Sand and Water Play

Dear Families,

Although you're probably used to seeing your children splash in the bathtub and dig in a playground sandbox, you may be surprised to know that the Sand and Water area is an important part of our school program. Both sand and water are natural materials for learning.

When children pour water into measuring cups, they are exploring math concepts. When they drop corks, stones, feathers, and marbles into a tub of water, they are scientists who are exploring whether objects sink or float. When they comb sand into patterns, they learn about both math and art.

We encourage children to experiment with these materials. As they do, we ask questions to focus their thinking on their discoveries. Here are some examples:

“Now that we've turned the water blue, what should we do with it?”

“How did the water change when we added the soap flakes?”

“What can wet sand do that dry sand can't? What can dry sand do that wet sand can't?”

“How many of these measuring cups of water do you suppose it will take to fill this quart pitcher?”

What You Can Do at Home

If your child particularly enjoys playing with water and sand, you may want to set up some areas for these activities at home. Water play can be set up at the bathroom or kitchen sink. Lay a large towel on the floor, and, if the sink is too high for the child, provide a stool or stepladder. Outdoors, you can use a small wading pool, tub, or an old baby bathtub. Give your child a baster, plastic measuring cups and spoons, a funnel, and plastic or rubber animals and boats. For a novel experience, add soap flakes or food coloring to the water. Don't forget about blowing bubbles with your child. Try using different kinds of bubble-blowing frames. Plastic six-pack rings, empty berry containers, and an eyeglass frame without lenses make interesting bubble wands.

If a sandbox is not available outdoors, you might use a small dishpan as a miniature sandbox. All you need is a few inches of fine white sand. Collect small items such as shells, rubber animals, a very small rake, coffee scoops, measuring cups and spoons,

sieves, and funnels and offer them to your child a few at a time. These props will lead to many hours of enjoyment.

The opportunity to play with sand and water on a regular basis helps children develop their minds and bodies in relaxing and thoroughly enjoyable ways.

What Children Learn in the Sand and Water Area

Because sand and water are so much fun, we sometimes lose sight of what great learning laborites they can be. Consider the many ways you help your child learn academic content while playing with sand and water.

Literacy

Expand your child's vocabulary and language by introducing them to terms such as water pressure, gritty, and funnel. Ask open-ended questions that not only encourage them to experiment but also to express the way they feel when playing with sand and water.

Read books about sand and water play.

Add alphabet cookie cutters, molds, or foam letters to create letters and words.

Mathematics

Teach number concepts by having your child count how many measuring cups of sand are needed to fill a pail. Use words such as more, less, and same to describe quantities.

Encourage your child to make patterns in damp sand by using objects like shells or cookie cutters.

Teach measurement by having your child observe how many tablespoons of sand or water are needed to fill measuring cups of varying sizes.

Science

Introduce your child to firsthand explorations of physical science by giving them props such as ramps, gutters, funnels, and sieves that they can explore with sand and water.

Offer your child varied opportunities to learn about Earth and the environment through their everyday observations of sand and water outdoors.

Social Studies

Help your child gain an understanding of people and how they live by encouraging them to role play with toy dump trucks, bulldozers, and rakes in the sand box.

The Arts

Bring the visual arts into your child's sand play by taking pictures of their sand creations and displaying the photos.

Technology

Introduce your child to basic tools they can use with sand or water: waterwheels, gravity gears, pulleys, etc...

How Sand and Water Play Promote Development and Learning

Social-emotional

Sand and water inspire children to work together to construct a sand village, wash a baby doll in water, or chase a giant bubble as it sails through the air. The fact that playing with these materials can calm a child who is agitated or upset has been well documented. When children play with sand and water they often express their thoughts and feelings.

Physical

Children strengthen their small muscles as they mold wet sand and scoop water. They develop fine-motor skills and eye-hand coordination, working with props as they pour water through a funnel, shift sand through a sieve, and squeeze a baster full of water. They build gross-motor skills as they carry buckets of sand and water outdoors.

Language and Literacy

While playing with sand and water, children expand their vocabularies as they learn words like grainy, sprinkle, shallow, and sieve. They build emerging literacy skills as they write letters in the sand or use alphabet molds. Equally important, as children perform experiments in the sand and water, they routinely ask and answer questions.

Cognitive

Sand and water are natural companions in scientific explorations. They engage children in making careful observations in classification, comparison, measurement, and problem-solving activities. Children discover that as a liquid, water can be splashed, poured, and frozen. As a dry solid, sand can be shifted, raked, and shoveled. When children combine the two, the properties of both change: The dry sand becomes firm and the water becomes cloudy. The texture of sand changes too. Wet sand can be molded. It also feels cooler to the touch than dry sand. Children learn about volume and capacity as they fill empty containers. They explore cause and effect when they observe which object sink and which float. They also discover that the amount of sand or water remains the same whether the container is thin and tall, or short and wide.

Materials for Sand and Water Play

Initially, your child will enjoy exploring sand and water with very few toys, tools, or equipment. Take note of which materials they seem to use the most and start with just a few simple props, such as plastic bottles or dolls to wash.

Gradually add props, such as measuring cups, funnels, and floating toys for water play, to introduce a range of new possibilities. Here are some ideas for stocking your sandbox and bathtub:

- Bottle brushes
- Bobble wands and frames
 - Buckets and pails
 - Bulb baster
 - Colander
 - Combs
 - Cookie cutters
 - Corks
 - Eyedropper
- Fishing bobbers
- Food coloring
 - Funnels
 - Ladles
- Magnifying glass
 - Molds
 - Muffin tins
- Pebbles and rocks
 - Pinecones
- Plastic tubing
- Rakes and shovels
 - Rolling pin
- Rubber animals and people