Why Are Children Playing?
For the young child, play and work involve the same actions: interacting with people, manipulating objects, and making discoveries that help make sense of the world. Learning happens naturally through play. Play is the work of children. For school success, children must develop physically, mentally, emotionally, socially, and creatively. Play is a crucial part of this development of the whole child.

What Is Sand & Water Play?
Children are naturally attracted to experimenting with sand and water. These natural “ingredients” provide the ultimate unstructured media for young children. Sand and water lend themselves to many imaginative activities and, best of all, they give children a sense of being in control. Shaping sand and pouring water allow self-expression without fear of making mistakes. Sand and water activities may be found both in the classroom, using a sand and water table, or outside. A variety of props and accessories for sand and water play helps extend children’s opportunities for exploration and discovery.

What Are Children Learning?
Young children are natural investigative scientists, learning from sand and water play as they delight in it. Activities with sand and water can be ideal “learn through play” experiences. As children explore and follow their interests and natural curiosity, they direct and construct much learning and internalize many basic concepts.

Through the fun and fascination of manipulating and experimenting with water, children make basic natural discoveries about the scientific properties and principles of the world around them. Children can learn...

- that water is a liquid.
- that liquids have no shape of their own.
- that water helps sand grains cling together.
- that water runs downhill.
- that some objects float and others sink.
- that changing the shape of an object can change how it floats.

Mathematical concepts are presented naturally to children as they scoop and pour. They experience volume and quantity first hand when they fill, over fill, and empty buckets and sand molds. When they fill a larger container using a smaller one, they are involved with informal measurement.
Sand and water play encompasses the senses. Children are soothed by the sounds of water and intrigued by the texture and sounds of sand as it slips through fingers and sieves. When children engage in this sensory play, their senses – sight, sound, and touch – are active participants. Fine and gross motor skills develop as young children are invited by their senses to dig, mold, splash, and stir.

Play at the sand and water center encourages creative expression and aesthetic appreciation. Young children can safely draw or mold in the temporary medium of wet sand. They may revel in the beauty of momentary drips and ripples on the water's surface.

The sand and water play area is a good place for social development and the active, casual learning of language skills. Children talk and laugh when they share and play together. They learn the give and take of discussion as they make new discoveries.

Children engaged in sand and water play are constantly presented opportunities to practice problem-solving and critical-thinking skills. Children naturally use the scientific processes of hypothesizing, observing, predicting, comparing, and classifying. In the process, they draw conclusions and make inferences, just as “real” scientists do.

While involved in sand and water play, children make basic discoveries that deepen their understanding of the world around them. Children also find questions that they “own” and want to explore – questions to which they want to find answers.

What Can You Do to Encourage Children’s Learning?

• Bring sand and water play to children regularly and often. Optimally, set up a permanent sensory play center with a sand and water table. A table with a lid will make it easy to signal when the center is open for play. If space and budget do not permit a table, make available sturdy tubs that can be filled with sand or water. Locating this center on water resistant and easily swept flooring will make play more carefree. Low shelving makes investigative materials easily accessible, and waterproof clear storage tubs help cut down on mess. Keep sponges and brooms handy for children to take responsibility for their own clean-up.

• Have a variety of materials available to use at the sand and water table. Include sand and water toys and utensils that provide different discovery experiences. Rotate the toys and equipment that are out at one time to vary the types of learning that are at hand and to keep interest high.

• Include buckets, shovels, rakes, sieves, sand mills, and molds that provide opportunities to experience play with sand. Children learn about amounts as they fill larger containers with smaller utensils. They have hands-on experiences with size when they sift sand through sieves. They can explore cause and effect when they run a rake through sand or watch the sand wheel turn when sand is poured through it.

• Children love to manipulate real tools. Let them use real measuring cups and spoons to give them the chance to learn about standard measurements while playing with sand or water. Real utensils like basters, whisks, ladies, shaker jars, and other kitchen equipment invite children to become real scientists as they engage in discovery water play.
• Encourage children to explore buoyancy by making available a variety of objects to experiment with. Provide different types and sizes of balls, corks, pebbles, toy boats, sponges, scraps of wood, coins. The choices are endless!

• Put out sponges, rags, and different types of papers to study absorbancy. Include non-absorbent materials as well: plastics, metals, wood. Find out why some things will soak up no water or only a little.

• Pretend play takes on new dimensions when children can run plastic vehicles through sand or float boats and vinyl animals in the water. Cities can be built on the sand. Themes about water animals come to life as children play with toy fish and other sea or pond creatures in the water.

• Interact with children and prompt learning. Invite them to experiment and form hypotheses based on the characteristics of materials and how materials can be affected by certain actions. Ask open-ended questions that lead to discoveries: “What do you think will happen if you pour a lot of water through the water wheel?” “What about a small amount?” “What happens to water if you stir it slowly (or quickly) with the whisk?” In the process, children may learn some intriguing facts about gravity and energy.

• Encourage children in their use of scientific processes. As they experiment, ask children what is happening and why they think it is occurring (to form a hypothesis). Then invite them to predict what will happen if they repeat their actions or change their behavior slightly. Ask them to repeat their experiment and observe the results to see if their thoughts were correct and to draw conclusions based on their results. Add literacy connections by charting and graphing their results.