

The Nitty, Gritty of Sand Play

Rebecca M. Giles^a, Karyn W. Tunks^b

^aUniversity of South Alabama ^bUniversity of South Alabama

Dr. Rebecca Giles is professor of Elementary and Early Childhood Education at the University of South Alabama in Mobile, AL. She has spoken and published widely on a wide variety of topics including emergent literacy, writing with young children, and teacher preparation.

Dr. Karyn Tunks is professor of Early Childhood and Elementary Education at the University of South Alabama. Her areas of professional interest include designing environments for play/learning and using children's literature to support emergent literacy.

According to Maria Montessori, "There is only one substance that the modern child is allowed to handle quite freely, and that is sand" (Montessori, 1967, p. 168). Sand is accessible throughout the world and is one of the few granular materials that does not readily decompose. As an open-ended, sensory motor activity, sand play is highly compatible with the explorative, imaginative nature of young children and well-suited for promoting the fun and expansive learning that embodies childhood.



At eighteen months, Alex explores the sensation of sand as she digs with her feet.

A popular view of play as a frivolous pursuit has resulted in a rigorous academic curriculum and absence of sand tables in many of today's preschool classrooms as well as the removal of sand boxes on playgrounds. The reasons given for not offering sand play include "children misbehave at the sand table" and "it makes too much of a mess." Such superficial objections overlook the immense value of sand play.

During sand play children learn by exploring and manipulating their surroundings. According to constructivist theory (Piaget, 1945), children intuitively interact with materials to build a conceptual understanding of their world that gradually becomes increasingly complex through continued interactions. The more exposure a child has with a play material, such as sand, the more adept they become at interacting with the material.

Three-year-old Abby observes moist sand drop as she shakes it from her plastic shovel.

Sand play promotes physical, cognitive, language, and social-emotional abilities, including fine and large motor skills, cooperative building, sharing, and pretending (Jarrett, French-Lee, Bulunuz, & Bulunuz, 2010). Further, as children make and test hypotheses about sand's physical properties, cognitive development is enhanced through increased knowledge of the scientific process (Kieff & Casbergue, 2000) and mathematical thinking and problem solving are improved (West & Cox, 2001). Improved physical development results from children grasping and manipulating various objects to dig, scoop, pour, smooth, mold, and shape sand. Children's language and literacy development is facilitated during sand play as they engage in conversations with peers, hear context specific vocabulary used in meaningful situations, and observe adults recording their thoughts and experiences in print. Children practice the social-emotional skills of sharing, caring, cooperating, and negotiating as they learn to accept the views of others and show respect for their creations.

Adults extend children's play by stimulating, directing, and supporting children's development and learning by providing the experiences that each child needs (NAEYC, 2009). Adults can support children's sand play by offering time, space, and materials that broaden the possibilities of imaginative scenarios or prompt spontaneous inquiries.



At four, Michael gathers moist sand into a mound, possibly attempting to recreate the bucket-mold tower nearby.

Sand play can occur in various forms either inside or out. Small tubs of sand are ideal for a single child and can be grouped together in close proximity to encourage interaction among children with clear boundaries for each individual. Large shallow containers, like under-the-bed storage boxes or a wading pool, can be used to encourage cooperative play among small groups. Placing sand containers near walls or other borders gives definition to the space allotted for sand play. A tile floor or nonporous surface is preferred but not required. A protective covering, such as a tarp or plastic shower curtain, can be positioned under sand containers on a table top or the ground to help contain spills and safeguard flooring. A broom and dustpan or hand held vacuum cleaner should also be available to children for ease of clean-up (Wellhousen & Crowther, 2004). Sand for outside play can be placed in containers, wooden boxes, sunken pits or simply piled on the ground. For indoor and outdoor sand play, proximity to a water source is a plus (Work, 2002), and covering the sand when not in use is highly recommended. A lightweight mesh cover that lets in water, air, and light provides best overall health and cleanliness of outside sand areas (Keeler, 2014). Regardless of location, only sand labeled as “sterilized” or “washed and screened” should be used for children's play.

While sand itself is intrinsically appealing, children's interest in sand play and the challenges it offers can be continuously maintained by adding a variety of interesting accessories. From common household items to crafts supplies and objects from nature, there are numerous possibilities (see Textbox). The best options are those that can be used for multiple purposes allowing children to incorporate them into their play in ways that reflect and represent their knowledge and experience (Goldhaber, Lipson, Sortino, & Daniels, 1996). By rotating the selection of toys and accompaniments, clutter is avoided while choice remains.



Plastic Easter eggs find a new purpose during sand play.

Adding water to sand creates a new dimension. Wet sand, which has the ideal consistency for molding, sculpting, and building, is an irresistible material for play (Mechling, 2016). Allowing children to mix sand and water often increases the length of time they are engaged in play compared to their play in areas where the two mediums are kept separate (Jarrett, French-Lee, Bulunuz, & Bulunuz, 2010).

Sand – dry or wet, inside or out – is a medium with so much potential for fun and learning that it cannot be ignored!

Accessories

Kitchen utensils

forks, spoons, spatulas, slotted turner, solid turner, serrated spoons, wooden spoons, potato mashers, whisks, strainers, funnels, measuring spoons and cups, pie servers, pasta fork, honey server, tongs, ice cream scoop, baster, steeping ball or tea infuser, and rolling pins

Non-breakable dishes

pitchers, cups, mugs, saucers, plates, cereal bowls and mixing bowls

Cookware

pots, pans, kettles, muffin tins, cookie sheets, and pie plates

Plastics

storage containers, assorted lids, colanders, scoops, shovels, molds, cookie cutters, sieves, colanders, buckets, and pails

Gardening supplies

hand tools, gloves, plastic flower pots, and watering cans

Craft supplies

latch hook canvas, plastic flowers, jewels, beads, glitter, sequins, yarn, string, pipe cleaners (chenille sticks), tongue depressors, popsicle sticks, empty spools
cloth scraps, buttons, and paint brushes

Small toys

wooden blocks, marbles, plastic animals, assorted vehicles, dollhouse furniture, model train railroad accessories, magnetic letters,

Natural items

stones, small rocks, shells, sticks, twigs, pieces of bamboo, bark, leaves, flowers, acorns, nuts, seeds, seed pods, feathers, and pine cones

Recycled Materials

paper towel and toilet paper rolls, berry baskets, net bags from potatoes or citrus fruit, egg cartons, empty spice bottles, corrugated cardboard, pieces of foil, packing peanuts, milk jugs, and 2-liter bottles

Miscellaneous

back scratchers, large plastic combs, spray bottles, Easter eggs, aquarium gravel and net, shaving cream, pieces of PVC pipe, ping pong balls, small tiles, plastic tubing, straws, and toothpicks

References

- Goldhaber, J., Lipson, M., Sortino, S., & Daniels, P. (1996). Books in the sand box? Markers in the blocks? Expanding the child's world of literacy. *Childhood Education* 73(2), 88-91.
- Jarrett, O., French-Lee, S., Bulunuz, N., & Bulunz, M. (2010). Play in the sandpit A university and a child-care center collaborate in facilitated-action research. *The American Journal of Play*, 3(2), 221-237.
- Keeler, R. (2014). Sand, sand, sand. *Exchange* (19460406), (216), 84-85.
- Kieff, J. E., & Casbergue, R. M. (2000). *Playful learning and teaching: Integrating play into preschool and primary programs*. Boston, MA: Allyn & Bacon.
- Mechling, J. (2016) Sandwork. *The American Journal of Play*, 9(1), 19-40.
- Montessori, M. (1967). *The absorbent mind*. New York: Holt, Rinehart and Winston. Translated from Italian by Claude A. Claremont.
- National Association for the Education of Young Children (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8. Position statement*. Washington, DC: NAEYC. Retrieved from <https://www.naeyc.org/files/naeyc/file/positions/position%20statement%20Web.pdf>
- Piaget, J. (1945). *Play, Dreams, and Imitation in Childhood*. New York: Norton.
- Wellhousen, K. & Crowther, I. (2004). *Creating effective learning environments*. Delmar Learning: Clifton Park, NY.
- West, S., & Cox, A. (2001). *Sand and Water Play: Simple, Creative Activities for Young Children*. Beltsville, MD: Gryphon House.
- Work, B. (Ed). (2002). *Learning through the eyes of a child: A guide to best teaching practices in early education*. Raleigh, NC: North Carolina State Department of Public Instruction, Raleigh. ERIC Document Reproduction Service No. ED472193.