

The Power of Open-Ended Materials

What are open-ended materials?

Open-ended materials are things that children can use in a variety of different ways. Open-ended materials are about the process of exploration and can inspire creativity. While children may use open-ended materials to create some type of product (such as a painting), these products would all look different and reflect their individual ideas and exploration. Some examples of open-ended materials are sand, water, blocks, play dough, paint, etc.

Also known as:

- Loose Parts
- Natural Materials
- Found Materials
- Beautiful Stuff



Open-ended

materials support development:

Cognitive: Because there are endless possibilities for the ways that open-ended materials can be manipulated and used, children will practice critical thinking as they experiment and create. As other children and adults talk with a child who is working with open-ended materials, language development will also be supported.

Physical: Both fine and large motor skills are supported as children manipulate open-ended materials in a variety of ways.

Social and Emotional: Children can share ideas and collaborate as they explore. As children try out their own ideas they will develop feelings of self-efficacy and competence.

If I just put stuff out the children learn, right?

Children will learn a variety of things through exploration of materials, but the real power of open-ended materials comes from working alongside children, listening and watching children as they explore, and seizing opportunities to provoke their thinking by asking



questions and posing problems. Starting with time to simply explore gives children the chance to get an idea of what some of the possibilities are, and children need to explore materials before they will be ready to use them with intention. But after having time to openly explore, learning can be facilitated by posing a challenge (“how tall can you make that tower?”),



asking questions (“what do you think might happen if you pour the sand from this large cup into this small cup?”), making observations (“I see that you have sorted those by color”), and increasing complexity (adding different sized funnels to the sand). Try not to take over the exploration as you facilitate learning, allow the children to direct what is

happening. Even if they don't take on a challenge you posed to them this time, they may try it independently on a different day.

Open-ended materials support learning across ages:

One of the benefits of open-ended materials is that they usually are interesting to a wide age range of children, and the explorations can be made more complex in order to be challenging to children who have different levels of experience and skills. Simple block play may involve just using the blocks themselves. Complex block play may involve the blocks plus vehicles or people figures. Super complex block play may invite the children to draw their own buildings and figures to attach to blocks, or could involve adding images of different types of buildings or even a projection of a cityscape on the wall of the block area.



Tinkering and Messing About:

Children need time to try out materials and explore before they will be able to use them with intention. Giving children space and time for this type of messing about is important for their understanding of the potential that materials offer. A child first needs time to explore with blocks so they can discover that bigger blocks at the base of a tower offer more stability, or that triangular blocks don't allow for blocks to be added on top when building a tower. They need time to knock towers down over and over, releasing that impulse, and eventually building control over that impulse. Then when presented with more complexity, such as a projection of a cityscape on the wall they have a sense of how to get started and use the blocks to build their own buildings within that cityscape.



Provocations:

After children have some time to tinker with materials and get a sense of what they can do with them, adults can facilitate more complex ways of using the materials by provoking thinking. This can be through asking guiding questions or provocations.

What is a provocation?

A group of preschool aged children were interested in learning about spiders and had been messing about with different types of play dough for many weeks. One day there were photocopies of different types of spiders taken from a non-fiction picture book that had been covered with clear contact paper in the container with the play dough and play dough tools. The children used the images and the play dough to create sculptures of spiders. They had conversations about the different features of the spiders in the pictures and the techniques they were using to create different parts of the spider sculptures. "I rolled a snake to make the leg parts—see!"



Resources:

- Daly, L., & Beloglovsky, M. (2014). *Loose parts: Inspiring play in young children*. Redleaf Press.
- Isbell, R., & Raines, S. C. (2012). *Creativity and the arts with young children*. Cengage Learning.
- Topal, C. W., & Gandini, L. (1999). *Beautiful stuff!: Learning with found materials*. University of California Press.
- Vecchi, V. (2010). *Art and creativity in Reggio Emilia: Exploring the role and potential of ateliers in early childhood education*. Routledge.

This project is funded through the federal Race to the Top Grant - Early Learning Challenge, under the joint direction of the Governor's Office of Early Childhood Development and the Illinois Department of Human Services.