



**Learning Math and
Science Through Play**

Down in the Dirt

What can you find hiding in the dirt?

What You Will Need:

- Small garden shovel or trowel (child-sized metal or strong plastic)
- Large magnifying glass with handle or 5x bug loupe
- 2 or 3 small plastic bowls or containers, one with lid
- Small outdoor area of dirt; better if there are a couple of weeds and a few rocks.
- Water hose or container of water



Here's What To Do:

- Identify a small area of dirt outside.
- If the dirt is very hard and dry, add water to make the dirt easy to dig.
- Give your child the small garden shovel or trowel and tell them, "This is an area where you can dig and make your own discoveries. What do you think you might find?"
- Encourage your child to look at the dirt under the magnifier and to put some of the dirt in a container.
- If your child finds something alive, such as a roly-poly, snail, worm, or bug larvae, add it to the container with a lid. Use a magnifying glass to observe the creature.
- Put the animal back outside in the dirt afterwards.

Now Try This:

- What do you notice about the dirt? Is it sandy? Rocky? What colors do you see?
- How does the dirt feel when you rub it between your fingers?

- Have you found any pebbles or rocks? How does the rock feel? What colors do you see in it?
- Did you find a plant in the dirt? Look at different parts of the plant up close.
- What do you find if you dig down deeper?
- Have you found anything else in the dirt? How do you think it got there?
- For the caregiver – what do you observe your child doing? What does their face tell you? What are you feeling about this exploration?

More To Explore:

- Find another location in which to dig. Compare the dirt from the second location to the first location.
- Set some damp dirt outside on a plate in the sun. Check it later. How has it changed?
- Add water to a container of dirt. Stir it in with a spoon. Add some other implements that can be used as tools, like craft sticks, sticks found outside, old small cups and forks. How does the water change the consistency of the dirt? What else can you do with it?

Books To Read Together:

Up in the Garden and Down in the Dirt by Kate Messner

Dirt: The Scoop on Soil by Natalie M. Rosinsky

Jump into Science: Dirt by Steve Tomecek

Yucky Worms by Vivian French

Wonderful Worms by Wendy Linda Glaser

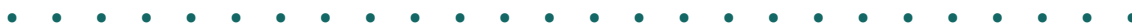
Wiggling Worms at Work by Wendy Pfeffer

Garden Wigglers: Earthworms in Your Backyard by Nancy Loewen

I'm a Pill Bug by Yukihsa Tokuda



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