

## Putnam Soil and Water: 1<sup>st</sup> Grade Programs

The following programs are designed for first grade classes and align to the state standards. All materials are provided and programs are free. To schedule a program email Bonnie Brooks with class sizes, specific dates and program name to [bonnie.brooks@putnamcountyohio.gov](mailto:bonnie.brooks@putnamcountyohio.gov).

**First Grade – 1.EES.2.** Water can be observed in many different forms. Water can change the shape of the land.

**1.LS.1** Living things have basic needs, which are met by obtaining materials from the physical environment.

**1.LS.2:** Living things survive only in environments that meet their needs. **Geography:** Maps can be used to locate and identify places. Places are distinctive because of their physical characteristics (land forms and bodies of water) and human characteristics (structures built by people).

**1. Pelts:** This is a non-formal presentation where we look at skulls and pelts and focus on adaptations of animals that live in Ohio. We have a mount of a badger and raccoon, wings the size of an eagle's, many pelts and skulls of beaver, coyote and opossum. Children identify differences between them.

**2. Pelt and Skull Lab:** This is meant to increase observation skills. Pelts and skulls are placed in stations and children answer questions at each station based on what they notice about specific pelts and skulls. It is a great follow-up to the pelts program.

**3. Worm bin:** What's in a bin. Kids learn about redworms and look for the creatures in a worm bin with 1000 x's magnifiers. What conditions are in the environment and how does the worm survive here?

**4. Large and/or Mini Stream Tables:** Students put ice and water in a large stream to show how water can change the shape of the land. Then teams of students experiment with mini stream tables. Students see how water creates landforms. Ideally stations would be set up outside.

**5. The Incredible Journey:** We read a book, look at a world map to see how much of it is covered by water and brainstorm the different forms of water and where we find them. Students then become a raindrop and see what happens over time. Kids put together a bracelet that shows their journey as a raindrop.

**6. Don't Croak:** Kids learn about cool frog facts, listen to calls and then become frogs trying to survive in their environment with party blowers and their own jumping legs.

**7. Monarchs and Milkweed:** What are the needs of milkweed and monarchs and what is their special relationship with each other? Students will release milkweed floss, dress up like a butterfly and learn why a milkweed needs the butterfly just like the butterfly needs milkweed. We can also plant milkweed seeds in milk jugs and over-winter them. Kids keep an eye on them to see when they start growing in the spring, then plant them on campus in the spring so kids can find caterpillars on them when they come back to school in the fall.

**8. Augmented Reality Sandbox:** Directions are practiced as student groups take turns creating maps in the sandbox. Dinosaurs, houses, trees and other props are utilized. Students will pick out a photo of the landscape



that depicts their map and be given an opportunity to draw a 2D version of the map they made in the box or make landforms made out of kinetic sand. \*\*Oftentimes schools will reserve the sandbox for a week and place it in a common spot. Then all the classes sign up for a time to come work in it.

**9. Experiment with Ice Balloons** – Fun, scientific Inquiry at its best. Student groups are formed. Groups choose what they would like to experiment with to see what kind of effect it has on the ice balloon. Students choose from a wide array of tools, some of which are temperature guns, different types of salts, food coloring, cookie cutters, and flashlights. Students freely make guesses, create hypothesis, test them, obtain results and share with the class. <https://www.exploratorium.edu/snacks/ice-balloons>