

handout

Water Ins and Outs



Exploring your world,
one mission at a time
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What Is This Activity?

What can water pass through? You will model and test surfaces and materials that absorb water and those that don't. You will also observe how water passes in and out of plants, and out of human skin.

Big Science Idea: Water passes through grassy surfaces, soil, plant leaves, and human skin because they have tiny holes. Water flows or puddles over solid surfaces like pavement.

Go Outside

- 1. Wrap a plastic bag around the leaves of a tree, flower, vine, or shrub.** Seal the bag with a twist tie. Don't pick the leaves or damage the plant! Leave it on the plant. Come back in about 20 or 30 minutes to check the bag.
- 2. Have your child slowly pour half their water onto pavement,** paying close attention to where and how the water moves. *What happens?* (Water generally stays on the surface unless there's a crack; it spreads in all directions on a level surface but flows downhill on a tilted surface.)
- 3. Now repeat the pouring over grass or dirt.** *Where does the water go?* (Water sinks in, or is absorbed into the ground. If it moves at all, it flows very slowly before sinking in.)
- 4. Ask:** *Why does the grass surface absorb water but pavement doesn't?* (Grassy surfaces have tiny holes that let water in. Pavement is solid.) **Predict:** *What will happen to the poured water? Why do you think that?*
- 5. Check on your bagged leaves.** *What's changed?* The bags should have water droplets that have come from the leaves. If not, give it another 10 minutes or so.
- 6. What's happened to the wet spots on the grass and pavement?** (They could be partly dried up, especially if they are in the sun.)

Activity Time

60 minutes

Materials

- Plastic sandwich bag with tie or string
- Bottle of water



Explore Some More

Go with the Flow

Go on a scavenger hunt with your child around your neighborhood to look for the parts of a drainage system, the structures that carry rainwater and melted snow out of the city or town. (See “Where Does Water Go in a City?” handout.) As you explore, note how much of your neighborhood is paved versus a grassy or other natural surface. *How many steps does it take to walk from one green space to the next?*



Flood Map

Using Google Earth, enter a local address in the search box and then drag the “street view” icon onto the map. Note the elevation readout at the bottom of the screen. Enter other addresses and use the elevation readings to locate high and low points in your neighborhood. *What spots are lowest and so most likely to flood?*

Outdoor Family Fun with Plum App

This app gets families outdoors exploring the world. Every day, the app offers five outdoor missions to get everyone thinking and talking about nature and the science that’s all around us.

Find the app and more fun resources on pbskids.org/plum.



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