# Build a Watershed



### Introduction

Water is essential for all life, but it is particularly important as a habitat to the lives of many different kinds of birds — waterfowl, herons, rails, kingfishers, ospreys, shorebirds, and a host of perching birds that nest in or around marshes.

The land that drains precipitation into a body of water (such as a river) is its watershed. How the land is shaped — its hills, mountains, and valleys — determines how the water flows.



By building and experimenting with a model watershed, kids can see how polluted water may spread from a faraway source to threaten the habitat of many birds and other animals.

### **Supplies**

- A large, shallow plastic bin or storage container and a large sheet of plastic, such as a light-colored plastic shower curtain or a large white garbage bag cut open. To do this activity outside on a larger scale, you can use two plastic tarps.
- Clean objects of different sizes from the recycling bin to create watershed topography, such as plastic containers, boxes, cans, and bottles. Natural items such as rocks and sticks can be used, too.
- Empty cans (to represent a mine and a factory)
- A spray bottle filled with water
- Confetti (made from hole-punched paper)
- Vegetable oil
- Pencil, paper, or journal for map making or recording observations

# Get kids thinking ...

**ASK KIDS:** How important is water to you? How many ways do you use it everyday? Where does your water come from? If something happened to your water, what would you do? Build a model watershed together to see how and where water flows.

#### **WATCH:**

WHAT IS A WATERSHED? youtu.be/QOrVotzBNto

**ASK KIDS:** How can birds help people understand more about watershed health?

## Let's get started!

**STEP 1: Get kids to discuss what your model is going to look like. ASK:** Will it have a lot of hills and valleys? Big mountains? A river or lake?

STEP 2: Kids can stack and arrange the containers and other objects to form the terrain and then drape the plastic over them. Have them push the plastic down between the containers to create valleys and bodies of water. Remind them to have some terrain to add a mine and a factory.

STEP 3: Once the model is ready, have kids use the spray bottle to "rain" over the hills and watch where water runs and rests. Have kids create a map and name the rivers and lakes that formed in their model. ASK: What kinds of birds would you think would be using the bodies of water? What people live here? Where do they work?

STEP 4: Have kids add a mine and factory. At the site of these locations, show possible pollutants by adding confetti at the sites. ASK KIDS to predict what might happen to the pollutants if it "rains" again. Then have kids use the spray bottle to "rain" over the hills and watch where water runs, carries the pollution, and then rests.

**STEP 5: Discuss what happens. ASK:** How will both birds and people be affected? Birds rely on healthy habitat. If it isn't healthy for birds, it isn't healthy for other wildlife or people.



**STEP 6: Add additional confetti and small plastic caps** filled with vegetable oil at the work sites. Have kids make a very heavy "rain." Discuss what happens.

Kids can learn more about the conditions of the watershed where you live. Have them start with this resource to learn more:

**HOW'S MY WATERWAY? (ENVIRONMENTAL PROTECTION AGENCY)** 

mywaterway.epa.gov

### More watershed activities

#### **MIGRATION HEADACHE**

migration.pwnet.org/pdf/Migration\_Headache.pdf



