

Exploring Watersheds

Discover how scientists observe and study watersheds!

A watershed is an area of land where all water flows to a specific stream, river, or lake, and from there to the ocean.

Materials Needed

White paper (one-sided scrap paper works well), washable markers, large tray, eye dropper (or spray bottle or teaspoon)

Instructions

Step 1: Loosely crumple a sheet of paper. Gently open it up to show the ridges and valleys.

Step 2: Choose one of the ridges. Color it with a washable marker. Make sure to use a lot of ink!



Step 3: Make a prediction. If water fell on the ridge, where would it go? What would happen to the ink?

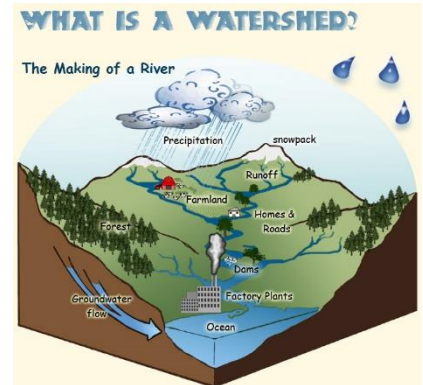
Step 4: Test your prediction. Use the dropper (or spray bottle or teaspoon) to drop water onto the ridge, simulating a rainstorm. Was your prediction correct?

Extension: Repeat your experiment with more ridges on the crumpled paper. Do your predictions change as you make and observe more "rainstorms"?

The shape of the land and the pull of gravity both influence how water moves over Earth. NASA scientists use observations to make predictions about the future of our planet.

To see examples and more information, go to:

www.nisenet.org/catalog/exploring-earth-paper-mountains-2018



A. Vicente, U.S. Forest Service

Studying Watersheds

A **watershed** is an area of land where rainwater and snowmelt flows to a central point like a lake, river, or stream, and from there to the ocean. The boundary of a watershed is determined by the landscape, such as hills or mountain ridges. Every piece of land on Earth is in a watershed.

Rainwater and snowmelt pick up and carry whatever is on the land-such as trash, exposed soil, or pollution-to the nearest body of water. What happens upstream influences the water quality downstream.

Watch a video to learn more about watersheds:

pbslearningmedia.org/resource/ket09.sci.ess.water.wshed/what-is-a-watershed/

At the UA Museum of the North, researchers study animals and plants that live in Alaska watersheds, and how humans have used watersheds in the past and today. They collect specimens and objects from across the state, and investigate how our watersheds have changed over time.



Chinook Salmon model at UAMN.



Global Precipitation Measurement mission, NASA/Goddard.

NASA scientists use satellites, rockets, balloons, planes, and drones to study Earth. Understanding our planet's interconnected processes can help researchers make predictions about climate, weather patterns, and natural disasters, and better understand how Earth will change in the future.

Healthy watersheds are important for a healthy environment. They provide habitat for plants and animals; water for drinking, irrigation, and transportation; and opportunities for recreation. We all need to take care of our watersheds.

To discover ways YOU can help protect watersheds, go to:

www.cwp.org/watershed101/