



Activity # 8:

Drain the Rain: What's a Watershed?

Earth Science, Scientific Method, Questioning, & Critical Thinking

(Preparation: 5 minutes / Activity Time: 10-30 minutes)

What Will You Need?

Materials:

- A white, or light-colored, piece of paper (the bigger the better, but a regular piece of printer paper will do just fine!)
- WASHABLE markers (for this activity, you'll want marker ink that is water-soluble, like Crayola washable markers)
- An empty spray bottle that can spray in a mist (if using an old cleaning product spray bottle, please be sure that it is thoroughly rinsed out, and clearly label the bottle: "WATER")
- A water source (a sink or faucet)
- A device with internet access to view the short, [5-minute educational video](#) (linked again in the "To Start" section)

To Start:

Today we are learning about an interesting part of the Water Cycle: Surface Runoff and water Collection! During and after rain, snow, hail, or other precipitation events, water begins to move across the earth surface. When water falls from the sky, it often falls on areas of the landscape where all of the ground slopes downhill from all sides, like a giant bathtub or playground slide. Since the ground is sloped downhill on every side, the water all moves towards one place. These areas are called Watersheds - an area that collects water as it travels downhill and drains into a single larger body of water like a stream, river, lake, or ocean at its bottom.

Let's ask a few questions:

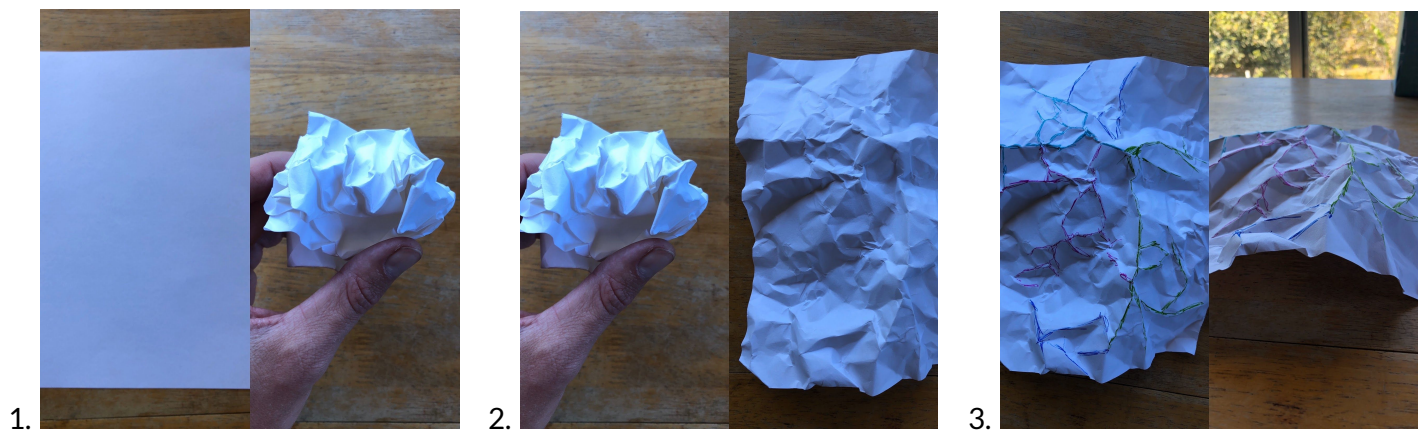
- Why does water want to move *downhill*? Why doesn't it go uphill?
- Do you think water can travel from one side of a mountain to the other side, going OVER the mountain? How does water travel around land-features like mountains?
- What sort of things might make the water stop moving downhill?

When you're ready, [click on this link to check out a short \(5 minutes\) kid-friendly educational video about Watersheds!](#)

Then, move on to the Project - instructions begin on the next page!

Project Instructions:

1. Lightly crumple your piece of paper - enough that it is folded and bunched, but not so tight that it is difficult to uncrumple. *See images below:*
2. Gently uncrumple the paper, pulling it apart until you have a bumpy, ridged surface - the paper should look like a mountain landscape being viewed from a plane while flying overhead. *See images below:*
3. With your washable marker(s), color only along the high-points of the paper - the ridges, or elevated creases. *See images below:*



4. Once you are happy with the colors and filling-in of the ridges, cap your markers and fill your empty spray bottle with water from the sink or faucet.
5. Screw the sprayer back onto the bottle and set your sprayer to the mist or spray setting
6. Holding the bottle about 1 foot or so above the paper, begin to spritz the paper with water (We recommend spraying a small part of the paper with ink on it first, to make sure that the ink will run down the sides of your "Mountains" - if not, stop and try coloring on the ridges with a different brand of washable marker. Then, test a small area again)
7. Watch what happens to the washable ink! It should begin to drain colors down the sides of your "Mountains" into the different and colorful Watersheds that you've created.