WATERSHEDS

Have you ever wondered where water comes from out of a faucet? From your watershed! Every single one of us lives in a watershed! What is a watershed? A watershed is an area of land where all of the water falling onto that land as rain or snow drains into the same place. Build your own paper mountain, and explore how watersheds work.

Time: 15-minute activity

Materials:
- White paper (8.5” x 11”)
- Thicker paper for base (or flat surface that can get wet)
- Washable marker (blue makes for believable rivers and lakes!)
- Spray bottle (or water to spritz from your fingertips)
- Tape (or rocks to hold down paper if outside)
- You!
Directions:

1. First, lay two pieces of white paper on top of one another so that the corners match up. Then, stick your pointer finger in the middle of the stacked pieces of paper. Holding your finger in place, begin to squeeze the paper up around your pointer finger with your other hand. Once the paper has been squeezed around your pointer finger, you can take your finger out and continue squishing and squeezing the paper with both hands to form all kinds of wrinkles in your paper.

2. Have your thicker piece of paper and your tape ready! Begin to unfold or 'unsquish' the paper that you had around your finger. Don't flatten it out, but begin to pull on the edges of your paper, expanding the wrinkled paper until it starts to look like a mountain! Once your wrinkled paper looks like a mountain with ridges and valleys, tape the bottom edge of your mountain to the flat, thicker piece of paper. You should use about four pieces of tape to hold your mountain down to that base.
3. Uncap your washable marker! With your marker, color the high edges of your wrinkled paper. It is important to not color all over your mountain, but only on the high edges and points that represent ridgelines and peaks. Leave the low creases that represent slopes or valleys white. If you color a thin but strong line on the ridges of your mountain, that will be perfect as you explore your paper-mountain watershed. See if you can color every ridge on your mountain with your marker!

4. What happens when it rains? Once your ridges are colored, it is time to get out a spray bottle filled with water or a cup of water you can dip your fingertips into. Spray or spritz the peaks and ridges of your paper mountain ten times with water and observe what happens. What is happening to the marker that you drew on your ridges? Where is it going? Is it gathering anywhere that you notice? You can continue to spray your mountain to discover what happens to all of that water coming down.

5. Explore some more by creating a new paper-mountain watershed with different ridges, slopes, and valleys, and observe what happens. Or read on to wonder why about watersheds.
Can you find a high point in your paper-mountain watershed? Can you find a low point? Is there water collecting in a low point in your paper-mountain watershed? Where is the water coming from? Which way does it flow?

Can you imagine where you live within the paper-mountain watershed you’ve created? Do you live on the paper mountain, in the valleys, along a river or creek, or far from moving water?

Time to get outside into the fresh Wyoming air! With permission from an adult, go outside and take a look at your surroundings. From where you live, can you identify a high point in your local watershed? Can you find a low point? What clues did you use to determine the high points and low points?

With permission from an adult, try taking a cup of water and pouring it on different surfaces, like a piece of cement, a lawn, a garden, a high point, a low point. Does the water travel and move? Does it stay in a puddle? Does it sink into the ground? Why do you think it does that? How does that contribute to your watershed?

The next time it rains, take note of where the water moves or if it forms a puddle. You can also take an adventure with your family to find streams or lakes in Wyoming. Use your scientific skills that you learned today to teach your family about the watershed that you live in!
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