

Crumpled Paper Watershed

Student Sheet

Follow the instructions below to set up the experiment.

1. Crumple up the piece of paper your teacher gave you, and then smooth it back out most of the way- it should remain a bit crumpled, showing small ridges (high points) and valleys (low points).



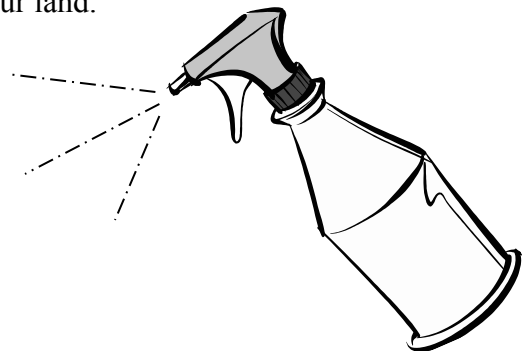
2. Imagine that this paper is a section of land. Find the ridgelines (the tops of the fold-lines).
3. Use a washable blue marker (not permanent) to color along the ridgelines on your land. The blue color from the marker will help you follow the path of the precipitation.



1. You are going to “rain” on your landform. Answer the following question to make your **hypothesis** before conducting the experiment. What do you think will happen to the precipitation as it meets your land?

Follow the directions below to conduct the experiment.

1. Use a spray bottle of water to create a rainstorm over your land. You want to create gentle sprays of mist.
2. Spray the bottle once, and observe the precipitation. Has it begun to travel on your watershed?
If **yes**, go to Question 3.
If **no**, then spray again. Continue misting. One spray at a time, until the precipitation starts traveling on your watershed.
3. As your rainfall accumulates, observe the pathways where the excess rainfall travels.

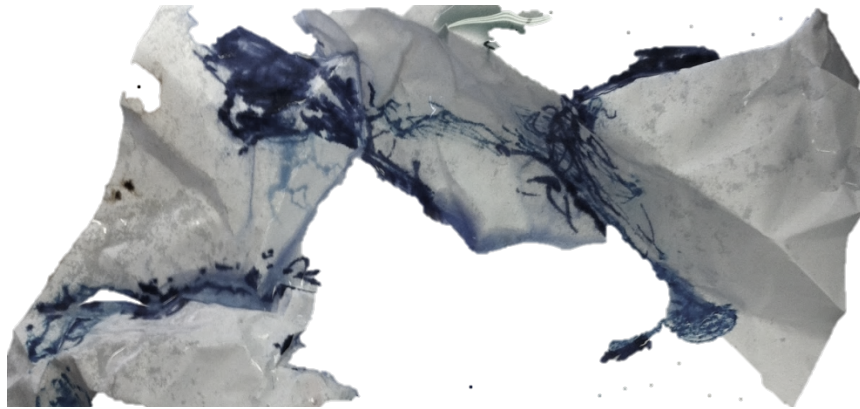


Record your observations.

2. In the space below, record what happened in your watershed. Use words and pictures if you wish.

Locate your watershed.

With your finger, trace your stream all the way back up to where it starts at the top of the ridge. (This should be a path of blue ink). When you reach the top, this is the edge of the watershed for your stream and lake.



Trace the entire edge of the watershed with your finger by following the ridgeline. This will be something like tracing the edge of a bowl. Everything inside, the downward-sloping area you have just outlined is the watershed for your stream or lake.

Analyze the data and draw conclusions.

Answer the following questions and complete the activities.

3. Explain how your hypotheses were or were not accurate.

4. How did the “rainfall” travel over your land?

5. Where did the water collect? Explain why this happened.

6. Find the largest area on your land where water collected. This is a lake, and you get to name it!
My lake is:

7. Look for a major stream running into your lake. Name this stream as well.
My stream is:

8. This stream may have several tributaries (small streams that run into the larger stream).
How many does your stream have?

9. Define the word “watershed.”

**On the back of this piece of paper, draw a picture of your watershed.
Label your stream and lake.**