

WATERSHED ACTIVITY

You'll create a model watershed to visually understand the physical aspects of a watershed and how human activities and natural disasters affect water quality.

By the end of this activity, you should be able to

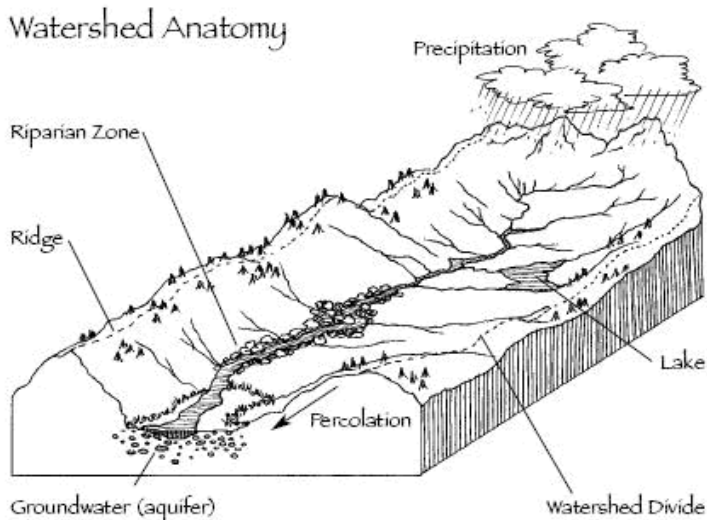
- Define the word "watershed;"
- Understand how to tell where the boundaries of a watershed are; and
- Understand how runoff affects our water quality.

Instructions:

1. Crumple up the piece of paper and then smooth it back out most of the way. It should still be a bit crumpled, showing small ridges (high points) and valleys (low points).
2. Imagine that this paper is a section of land, and find the ridgelines (the tops of the fold-lines).
3. Tape your model watershed to the manila folder so that you have a 3D rendition of the region.
4. Use a permanent BLACK marker to color along the ridgelines on your "land." Color in 1-2 lakes with a washable BLUE marker. Color in an area of a recent forest fire with a washable BROWN marker. Using a washable RED marker, fill in an area of a hazardous waste site.
5. Take a BEFORE photograph of your model.

Pre-rain questions:

1. Name your watershed.
2. Using the diagram below determine how many watersheds you have in your model.



With your permanent marker number each one.

3. What do you think will happen to your land when it "rains?"

Run the Experiment:

1. Use a spray bottle of water to create a "rainstorm" over your land. You want to create gentle sprays of mist from overhead.
2. Observe what happens after every misting.
3. As your "rainfall" accumulates, observe the pathways where the excess "rainfall" travels.
4. Note where the different colors end up (BLUE, BROWN, RED).
5. Take a photograph AFTER the rain.

Post-rain questions:

1. How accurate were your predictions for the number of watersheds?
2. Were your predictions about the effects of rain accurate? Explain.
3. Can you give an example of how an understanding of watershed runoff should have been used for better planning of projects?

WATERSHED ACTIVITY:

NAMES: _____

WATERSHED NAME: _____

Pre-rain questions:

1. Number of watersheds: _____
2. Prediction of rain event:

Post-rain questions:

1. Accuracy on number of watersheds:
2. Accuracy of prediction:
3. Impact for planning projects:

WATERSHED ACTIVITY:

NAMES: _____

WATERSHED NAME: _____

Pre-rain questions:

3. Number of watersheds: _____
4. Prediction of rain event:

Post-rain questions:

4. Accuracy on number of watersheds:
5. Accuracy of prediction:
6. Impact for planning projects:



https://sdsu-dspace.calstate.edu/bitstream/handle/10211.10/2610/Ta_Melissa.pdf?sequence=1