

Name: _____ # _____

Watershed

Building a Watershed Model

Estimated Time: 20 minutes

Age Range: 5th grade

What you need:

- 1 piece of foil (10x10 inches or larger)
- 2-3 rocks, or small hard objects to put beneath the foil
- A baking dish, cookie sheet, tray or plate (something to assemble your model on)
- 2 water-based markers, different colored (Crayola works great)
- Spray bottle filled with water

New Words

Watershed: an area of land where water flows and is stored.

Model: an example or representation of a person, place, or thing, usually smaller than the original.

Introduction: Have you ever seen what happens to the water when it rains?

Where does it go? How does it move? In today's activity, you are going to conduct an experiment to see how water flows.

Make a prediction. What do you think is going to happen to the water? How is going to move? Why?

As you are building, think about what this model could represent in real life. Does it remind you of anything?

Instructions:

1. Place rocks (or smaller hard objects) onto your baking dish or tray.
2. Place the foil over your objects and gently press down on the foil. Your goal is to have all of your objects and the bottom of your dish covered by foil (see the pictures below).
3. With one of your colored markers, make dots on all the high points on your foil. High points are all the areas that are at the very tops of the rocks. With the second marker, mark the low points on your foil. Low points are the places that touch the bottom of your dish.



4. Holding the spray bottle about one foot above the tray, spray your model with water for 25 seconds, using the "mist" setting. What happened when you sprayed water onto your model? If you used markers to mark high and low points, what happened to your marks? Was there any evidence that water moved in your model?

Draw a picture of your model and label the different parts. What does the spray bottle represent? What about the tray and the tinfoil? What do the high points and low points represent? What forms from the water?



You just created a model of a **watershed!** Now that you know that, what do you think a watershed is?

A watershed is an area of land where water flows and is stored.

Flowing water includes things like creeks and rivers, just like the water that moved from high to low in your model! What are other examples of flowing water in nature? Write your ideas down here:

Stored water includes things like ponds and lakes, just like the water that was stored at the bottom of your dish! What are other examples of stored water in nature? Write your ideas down here:

In the model you've created, the tops of the objects and the bottom of your dish represent the mountains and valleys within the watershed! This is because a watershed includes flowing and stored water, but also the land around it.

Reflection Questions:

1. How does water move in a watershed?
2. Do you think we live in a watershed? Are there any examples of natural flowing and stored water in your community?

Next steps (optional):

With an adult's help and permission, do some research on the internet. Find a map of the watershed you live in, and then find where your town is on that map.

If possible, print out the map. See if you can figure out where the high points (mountains and hills) are on that map. Draw arrows to show how the water would flow when it rains, or when snow melts on the mountains.

Photos Taken from: <https://www.youtube.com/watch?v=bsqMgOvyW4g>