

ACTIVITY: PAPER WATERSHED

Introduction:

What is a watershed? A watershed is an area of land that "sheds" water to the same river, lake, or stream. Watersheds serve an important role for your community by collecting the water that serves as your drinking water source. In this activity you will make a paper watershed by drawing all things around you that make up your watershed. These include your home, your neighborhood, all the roads you drive on, your school, and maybe even the entire city where you live. Watersheds can be big! Your paper watershed might even include a big city, farmland, and mountains. And don't forget to add people, pets, and animals to your watershed because we all live in a watershed.

We all know how important it is to keep our environment and our watersheds clean, but did you know that watersheds can become polluted by all the activities we do in our daily lives.

For example:

- Dog poop that is not picked up is not only gross to see; it also has bacteria in it that can be harmful to humans and other animals if that bacteria gets into water you swim in.
- Cars that aren't maintained properly drip oil and other chemicals on the roadways, and wash into streams when it rains.
- If too many pesticides or fertilizers are applied to lawns or farmland, the excess can run off when it rains.
- Yard waste like grass clippings, raked leaves, or trimmed limbs and branches that are tossed into rain gutters or storm drains can be carried out to streams and rivers when it rains. Even though they are natural materials, nutrients in them can hurt creatures living in water.

In this simple demonstration you will see how water – and the pollutants that it carries – moves through a watershed.

Supplies List:

- Large sheet of paper
- Permanent markers
- Washable markers
- Spray bottles filled with water
- Plastic tray (optional)







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Activity:

- 1. Think about all the things that make up your watershed, and draw it on your paper with the permanent marker. Be sure to add a body of water (a lake or a river) at the center of your paper with smaller streams flowing into it, and mountains or hills at the outside edges.
- 2. Now draw the ways that the activities, people, and animals can pollute your watershed using your washable markers. If you can, use a different color for each type of pollution.
- 3. Crumple your watershed, leaving the water body at the center of your paper flat. Shape it so that the edges are higher than the center and estimate where water might flow if it rained.
- 4. Use the spray bottle to simulate rain by spraying the paper watershed with just enough water to make the colors of the washable markers run into the water body at the center.

Wrap-up:

As you spray the water on your paper watershed, observe the following things that are happening:

- Where did the water accumulate and how did it flow through the paper watershed?
- If you used different colors for each type of pollution, do you see how the colors (different pollutions) mix as they flowed to the largest water body at the center of your paper?
- What are the ways we can prevent this pollution from getting into our waterways?
- Remember that water in your natural environment serves as your drinking water source. Why is it important to keep your environment clean?

Adapted from: <u>The Urban Watershed Stormwater Edition</u>, Georgia Project WET.



