



WATER: WHERE IT COMES FROM, WHERE IT'S GOING

AGE: Grades 5-6

SUBJECT: Science, Social Studies

SKILLS: Mapping

DURATION: 1 hour

GROUP SIZE: Large group and/or small group

Learner Objective

Students will be able to identify local watersheds and drainage areas by using maps.

Background

Refer to "Community Waters" packet.

Materials

For the group:

- A United States map showing major watersheds. (A good map of this type may be available from your nearest University of Minnesota Extension Service office.)
- A highway map of your state
- A county map, or even a more local map. (Call your Soil and Water Conservation District for information on what maps exist and how to acquire them.)
- Topographical maps of your locality are available from the United States Geological Survey.
- Large sheets of newsprint or butcher paper to make a map approx. 5' x 10'
- Felt tip markers or colored pencils
- Small gummed stickers

For each student:

- Diagrams of watershed and water cycle (on reverse side)

Activity

1. Distribute copies of water cycle and watershed to each student. Explain each one. Students can make notes on their diagrams as the explanation progresses.

Watershed refers to a land area within which all water flows toward the lowest point. Small streams flow into larger streams, which flow into rivers which eventually reach the ocean. In this passage, water moves through marshes, ponds, lakes and even those wetlands that appear to be motionless.

The term watershed applies to the total land area drained by each of the major rivers in the country; it also applies to the land area drained by each smaller river and stream, even though those rivers and streams are part of the large rivers' drainage areas.

The term **water cycle** means using the earth's water over and over again. The sun is the source of energy. The sun heats the oceans causing vapor to rise into atmosphere. There, droplets combine with other droplets as they cool, and eventually they are heavy enough to fall to earth as rain or snow.

Some moisture is absorbed by plants which put moisture back into the atmosphere by means of transpiration. Some moisture collects in wetlands and waterways, and eventually makes its way back to an ocean. The earth and its atmosphere is like a sealed capsule; it is creating no new water. The quantity of water is always the same. The quality of water might vary.

2. Examine a map of your county. Find the important rivers and streams. To which major watershed do they belong? (See map of watersheds in "Community Waters" packet.) Which direction do they flow? How does water supply relate to where cities are located?
3. Ask each student to write his/her name on a small gummed sticker, and place the sticker on the map in the position of his/her home. Divide the map into four equal parts or quadrants, and divide the students into four teams determined by where each lives.
4. Discuss:
 - What direction does water move in this community? How can you tell?
 - How can you tell that water moves through a lake or a marsh? What is your evidence? Do you have a place in your community where you can find this evidence?
 - Generally speaking, how fast does your water move? What does that tell you about the land surface around you?
 - Generally speaking, what size are your waterways? Does that give you an idea of how near or how far you are from the outer edge of your watershed?
5. Review what the students know about waterways and direction of flow. Then pretend your finger is a drop of water and place it at random on the map. Give each team ten minutes to trace a drop of water out of their quadrant. They will move it in the direction they know it must go through the water bodies they have mapped.



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