

Lesson 8

Water Connections

How do tributaries connect to the main stems of rivers?
Why is it important to be concerned with all aspects of the watershed and not just where you live?
What is a special aspect of the Farmington River?

GOAL To understand that tributaries of rivers are connected to the main stem of the river and need to be monitored and protected carefully as the main branch.

OBJECTIVES Students will:

- ✓ identify tributaries of the Farmington River
- ✓ understand the “wild and scenic” designation
- ✓ connect the branches to the main stem of the river

MATERIALS overhead map transparency, copies of watershed maps, pencils, butcher block paper for five groups, markers or crayons

CORE CURRICULUM CONTENT STANDARDS

- Language Arts 1(12)
- Science 1(7), 7(3), 8(2,5,6)
- Social Studies 9(3-6), 10(1,4-6),11(4,7,8), 12(1-3)
- Art 2(1)

VOCABULARY riparian area, buffer zones, erosion

PROCEDURES

1. Explain to students that main rivers branch out like trees and the smaller parts of the river are called tributaries. The rivers and tributaries are all part of the watershed. Suggest to students that they stretch arms out. Explain that their bodies represent the main stem of the river and their arms represent the tributaries. The streams and brooks are connected to the main branches of the river and need to be monitored and protected.
2. Have students participate in an activity that connects the rivers and tributaries in the Farmington River Watershed. Explain that the quality of river water is dependant on how river or riparian areas are developed. Vegetation and trees around river areas provide buffer zones for waterways. Some of the water flows into the waterways and some of it is absorbed into the soil around it to prevent erosion. These areas are valuable in preserving the quality of water. They also provide habitats to wildlife and recreational opportunities for people living in the surrounding areas. Explain that how the area upstream is treated will ultimately affect the area downstream.
3. Break up students into smaller groups. Distribute copies of watershed maps to students

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- groups
4. Have student groups read the following clues (a – d) to find the tributaries on the map. Label them. An overhead map transparency may be used to help guide students.
 - a. I am called Clam River. I am located in the town of Otis and Sandisfield, Massachusetts. Where am I and where do I connect to the Farmington River? Mark an “x” where I connect.
 - b. I am the Pequabuck River. I connect with the Farmington where it makes a “u” turn and flows north. I flow through the towns of Farmington, Plainville, and Bristol. Where do I connect to the Farmington River? Mark an “x”.
 - c. I am the Nod Brook, Stratton Brook and Hop Brook in Simsbury, Connecticut. Nod Brook flows through the town of Avon too, but Stratton and Hop Brooks only flow through Simsbury. Label where I am and mark an “x” where I connect to the Farmington River.
 - d. I am the Farmington River. I am flowing through the town of Windsor. Where do I connect to the Connecticut River? Make an “x”.
 5. After the student groups have completed this exercise, ask students the following: Knowing that the river and its tributaries are connected, how would that change how they treat all branches of the river and how they think others should treat the river? Have groups discuss and present ideas to the class.
 6. Explain to students that in 1994, 14 miles of the Farmington River were designated as “Wild and Scenic”. This refers to the particular section of the river known for its beauty, wildlife habitat and recreational value. Visitors canoe, kayak, fish, visit historic mills and state parks, and the river is home to bald eagles and other wildlife. Distribute butcher block paper.
 7. Have students draw a river with tributaries in the middle of the sheet of paper. It should resemble a tree. Color river blue.
 8. On the sheet of paper, have students draw what “wild and scenic” means. Have students draw vegetation and trees along the river banks.

EXTENSIONS

1. Ask students if they think that homes, businesses or factories are allowed to be built along the 14 mile stretch of the “wild and scenic” section of the Farmington River. Why or why not? Have students work in groups and discuss.
2. Ask students if it is important that we care how communities other than our own develop their towns.

RESOURCES

Farmington River Watershed Association, August 2003, *State of the Farmington River Watershed Report*, Farmington River Association, Inc.

GLOSSARY

buffer zones - an area that lessens or absorbs an impact

erosion - the group of natural processes, including weathering, dissolution, abrasion, corrosion, and transportation, by which material is worn away from the earth’s surface

riparian area - the vegetative area or bank of a river