

WATER'S JOURNEY

OBJECTIVES

The student will do the following:

1. Demonstrate the cycle of water through a community.
2. Become aware of the uses of water in their community.
3. Recognize the need for water conservation in their community.

BACKGROUND INFORMATION

You may be surprised to know that you use the same water over and over again. The water you swam in last week may be the water you will drink today. The water that comes from the lake where you swim may be pumped to your local water treatment plant. Here, the water is treated (cleaned) and then it goes to your home where you will drink it, take a bath in it, or maybe water your plants. After you use water, it goes down the drain and travels to a wastewater treatment plant, where it is cleaned and put out into a lake or river.

Think of your water as if it is taking a journey. The next time you turn on your faucet you will have an idea of how far your water has come and where it is going. This is similar in concept to the natural hydrologic, or water, cycle in which water "travels" through various states of matter and parts of the natural environment. A community water cycle might be thought of as the human world's version of the natural water cycle.

Terms

conserve: to use a resource wisely and efficiently.

cycle: a process that repeats itself.

resource: a supply of a valuable and useful thing.

SUBJECTS:

Science, Social Studies, Art

TIME:

120 minutes

MATERIALS:

bulletin board
butcher paper or art pad
milk cartons (pints, quarts)
small boxes
markers
scissors
pictures cut from magazines
construction paper
masking tape, push pins, or thumb tacks
posterboard
crayons
acetate sheet
overhead projector
teacher sheets (included)
bell or buzzer (optional)

ADVANCE PREPARATION

- A. Gather materials for bulletin board (butcher paper to cover bulletin board, construction paper, markers, milk cartons for buildings, and pictures). If you are going to make the “3-D” bulletin board illustrated, gather small boxes (such as gift boxes, small food boxes [e.g., cereal, cookies, etc.], and small milk cartons) and cut off the bottom of each one (so you can reach into it to mount it with a thumb tack).
- B. Make a transparency of the “Community Water Cycle” teacher sheet.

PROCEDURE

I. Setting the stage

- A. Ask the students the following questions.
 1. What is a community? (a group of people living together in a designated area) Review social studies community concepts with the students. Remind them that an important part of any community is the services and utilities that provide the things people need.
 2. What is a cycle? (a complete process that repeats itself; the seasons of the year are a good example)
 3. Can you describe a community water cycle? (a water distribution process that repeats itself through a community) Show the students a transparency of the “Community Water Cycle” teacher sheet.
- B. How could we illustrate a community water cycle? Lead the students into developing a bulletin board.

II. Activity

- A. Develop a bulletin board that represents a community water cycle. See the teacher sheet, “Community Water Cycle Bulletin Board,” for a diagram of a bulletin board. Introduce the students to how a water utility serves the community (keeping a supply of safe drinking water, making sure water is safe from diseases, treating wastewater so it may safely be discharged).
- B. Divide the students into teams.
 1. Instruct one team to cover the bulletin board with butcher paper and draw or cut a “stream” from construction paper; this represents the source of water. Title the board “Water’s Journey.”
 2. Have the other teams draw buildings and cut them out, or use magazine pictures, or small milk cartons and boxes decorated as buildings to represent the homes, schools, businesses, and other buildings that would be present in a community.
 3. Then have the students place these “buildings” on the board to represent the distribution and use of water in a community. (Mount them with thumb tacks or push pins. You could staple them or try rolled pieces of masking tape to mount the cartons)

- C. Together with all of the students, construct or draw buildings to represent the water treatment facility and the wastewater treatment plant to show that water is treated (cleaned) before it is used and again after it is used, then returned to the stream.

III. Follow-Up

- A. Ask the students to think of as many ways as possible that their community uses water. (residential—bathing, cooking, washing; industrial—factories; commercial—hospitals, businesses, and restaurants; habitat for wildlife; agriculture; public use) List these on the board or on an overhead projector.
1. Divide all the listed uses into two groups:
 - a. essential (drinking, bathing, flushing, cooking)
 - b. non-essential (watering lawn, washing car)
 2. Discuss listings in the non-essential group and consider what each student can do to conserve water.
 3. Would it be difficult to bring about change in community water use? Discuss this question with the students.
 4. Who do the students think they should contact concerning changes in water conservation at the community level? (begin by contacting the water utility)
- B. Have students or teams of students design posters reminding people to conserve water. (Post these in the hallways of school, in the community library, and in businesses.)

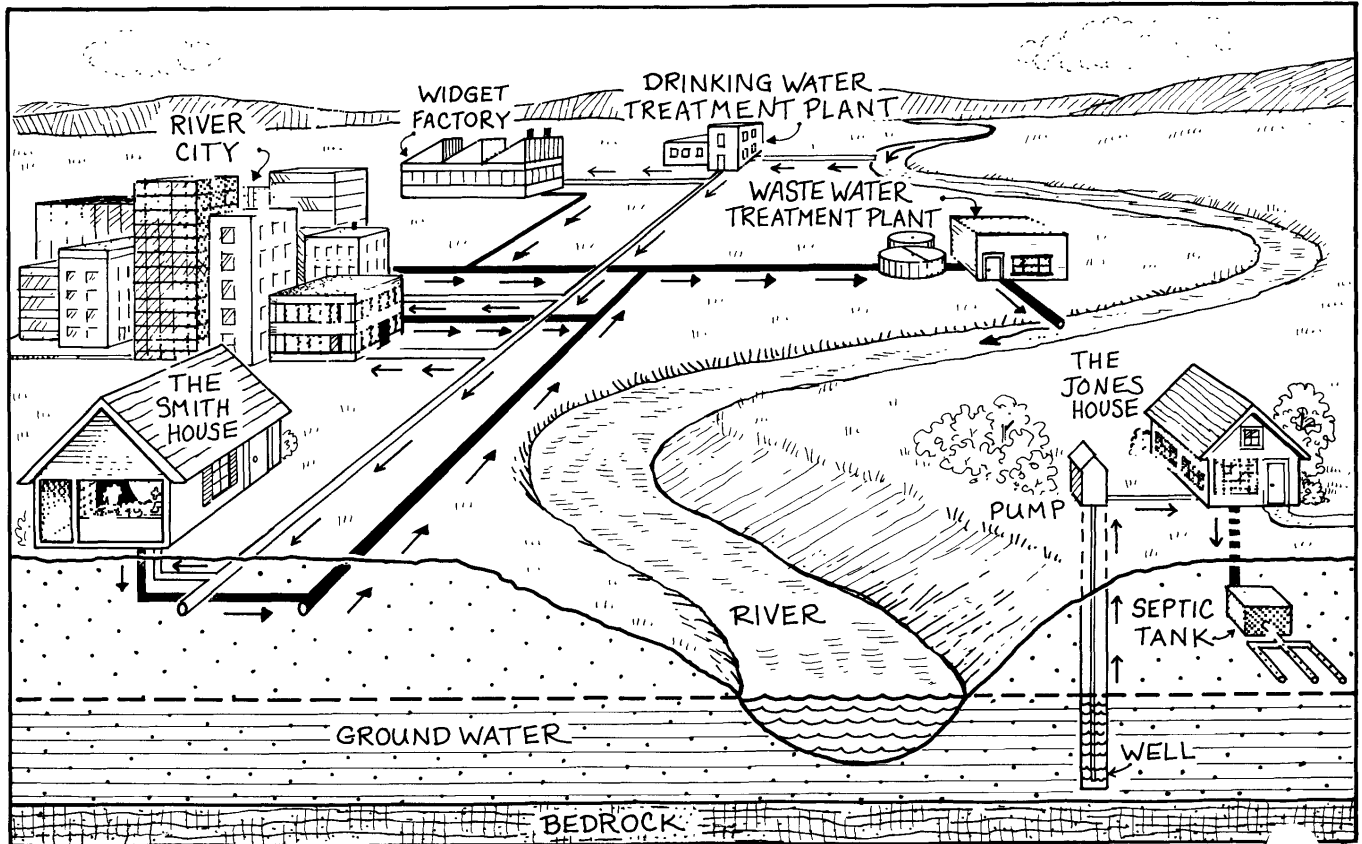
IV. Extensions

- A. Ask the students or teams of students to write a commercial to encourage people in the community to conserve water.
- B. Ask someone from the Agricultural Extension office to come in to speak to your students.

RESOURCE

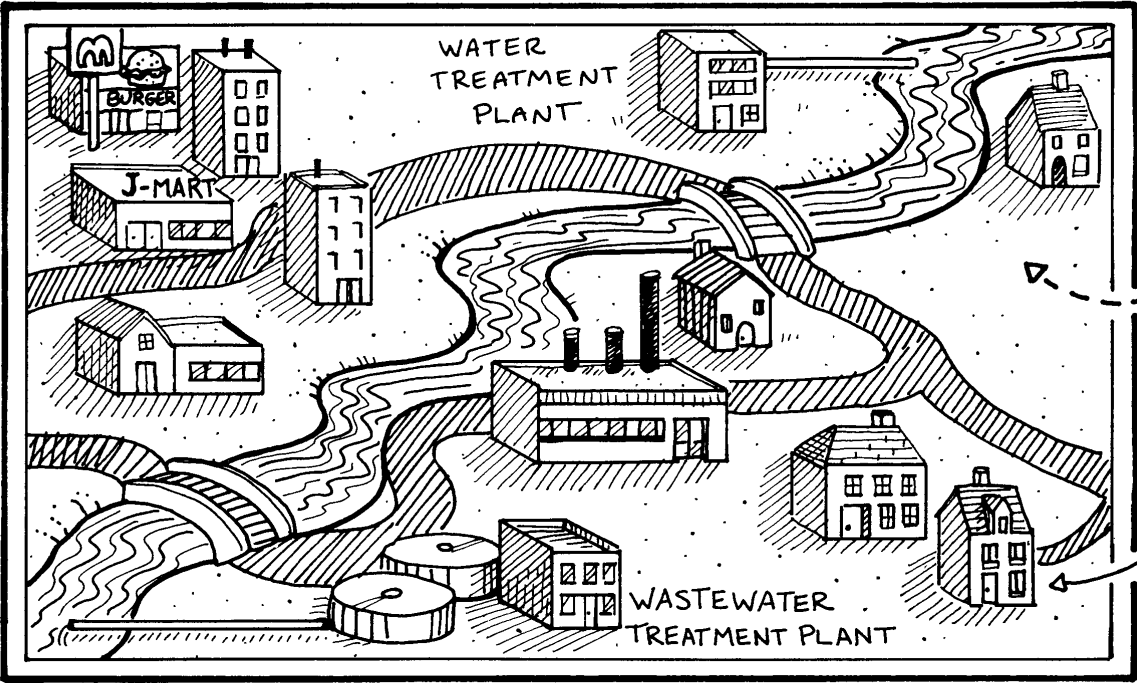
“The Story of Drinking Water” (student booklet), American Water Works Association, Denver, Colorado, 1984.

COMMUNITY WATER CYCLE

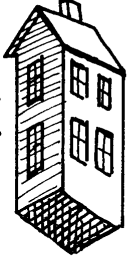


COMMUNITY WATER CYCLE
BULLETIN BOARD

"WATER'S JOURNEY" BULLETIN BOARD



THUMBTRACKS
THROUGH
BACK



MILK
CARTONS
DECORATED
LIKE BUILDINGS

