HOW WATER FLOWS THROUGH A WATERSHED

OBJECTIVES
At the end of this lesson, the students will be able to do the following:

1. Observe and orally explain how water flows through a watershed;

2. Observe and orally explain surface water absorption and runoff.

3. Explain the water's flow path after it leaves your local watershed.

SUBJECTS: Social Studies

TIME: 1 ½ hours (does not include prep. time)

MATERIALS
*Half gallon carton
*Green & blue paint
*Sponge

BACKGROUND INFORMATION
Watersheds are areas where surface water flows toward a water body including creeks, streams, rivers or bays. A ridge or other area of elevated land, called a divide, separates one watershed from another. Streams on one side of the divide flow a different direction than streams on the other side.

Steams within a watershed forms from rain water, runoff, snowmelt and springs. As this water flows over a watershed, it recharges surface and ground-water supplies by percolating into aquifers.

TERMS
Flow: Move smoothly.

Percolate: Water moves into the aquifer by passing through a porous layer of rock.

Runoff: Water (originating as precipitation) that flows across surfaces rather than soaking in eventually enters a water body; may pick up and carry a variety of pollutants.

ADVANCE PREPARATION
Gather materials.

PROCEDURE

I. Setting the stage

A. Share background information on a watershed.

B. Have the students look at their local Bexar County Watershed map provided with this educator's guide. Ask them to locate which watershed they live in. Which watershed is the school in?
(Social Studies TEKS K.5A, 1.5A, 1.6A, 2.7B)

II. Activities

A. Construct a watershed model using a half gallon juice carton or waxed cardboard box. Cut top and bottom off, then cut the corner of two sides from end to end. Push the two sides down exposing the inside of the milk carton forming a "V" shape in the middle of the other two sides. The end of the mild carton will make a "M" shape. Tape the cut ends to a piece of cardboard 14" x 14". (See diagram of this on the following page).

B. Paint the model with green paint and paint a small blue stream in the "V" of the box. Glue small pieces of sponge to represent trees. Raise one end slightly to create a downward motion of the stream.

C. Ask the students to collect objects that they might find in a watershed, both positive and negative, and place them into their model. Some examples might include leaves, sticks, grass, rocks, trash, etc.

III. Follow-Up

Have the children discuss runoff and what effects it would have on their watershed model.

IV. Extensions

A. Understanding runoff in a watershed.

B. Mix paint and water (half-and-half).

C. Have children dip a brush in the paint and observe the paint running down the paper making different designs. Repeat using various textures of paper or fabrics, discussing differences in paint absorption and design. Display children's artwork.

Additional Materials
*Paint
*Brushes
*Water
*Paper
*Easel

RESOURCES

"The Water Sourcebook: A Series of Classroom Activities for Grades K-2 Produced for Georgia Water Wise Council," Education Research and In-Service Center, University of North Alabama.