

THEME:	Watershed
SCOPE & SEQUENCE UNIT:	What is a Watershed?
OBJECTIVE:	The shape of the land defines a watershed
ACTIVITY 1:	Moving in a watershed

Notes:	Outdoor activity in schoolyard on asphalt
Teacher Prep.:	With sidewalk chalk or crayon, draw out a watershed on an asphalt surface in the schoolyard – if there is a slope use that. (see Background Information for details)
Time:	15 minutes to draw watershed; 20-30 minutes to play

Skills:

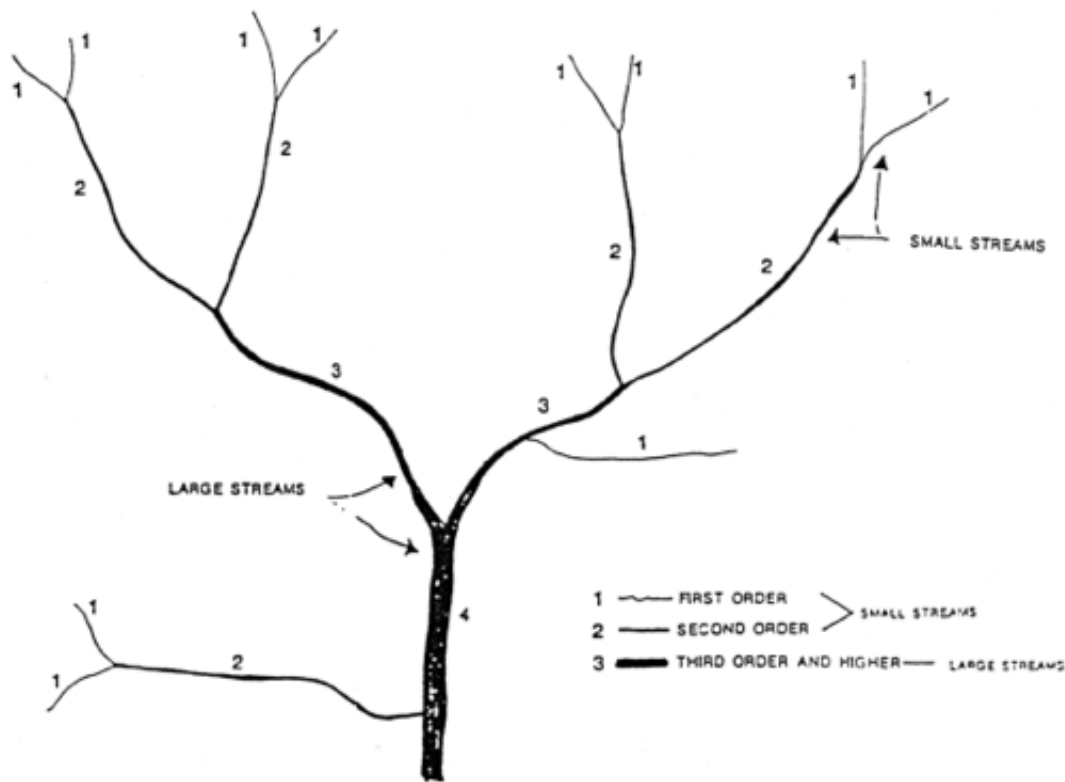
- ◆ Critical & creative thinking

Objectives:

- ◆ To kinesthetically experience a watershed as a drop of water
- ◆ To understand the network of tributaries in a river system in forming a watershed

Background Information:

With sidewalk crayon or chalk draw out a watershed on an asphalt surface, drawing a 4th order river. For example, 1st order streams are the headwaters with no tributaries of their own. 2nd order streams form when two 1st order streams merge. When two 2nd order streams merge it becomes a 3rd order river, etc.



Use a different colour to designate a different order of stream. For example, referring to instructions below for playing the game, we used these colours: Green – 1st order; Yellow – 2nd order; red – 3rd order; Blue – 4th order. Start drawing the watershed at the bottom or mouth of the river and draw up into the watershed, so to speak.

Vocabulary:

Watershed: an area of land in which all water eventually drains into the same river, lake or water body. A small watershed can be part of a bigger watershed.

Materials:

Sidewalk chalk of four colours

Map of local river

Introductory Discussion:

Ask the class, “What is a watershed?” Explore their understandings by gathering their ideas and responses without providing them with a definition. It’s possible that someone in the class may know what a watershed is and it’s possible that no one may know. Proceed outside to play the game, Moving in a Watershed.

Moving in a Watershed – How to Play:

Direct students to stand at the beginning of one of the Green lines. Tell the students that each one of them is a water drop. When they hear the word, "FLOW", they are to walk down their line. When they hear the word, "STOP", they stop on the spot. Start the game by calling FLOW. As the students begin to travel the lines, call STOP. Ask students, with a show of hands, "How many of you are on Green? On Yellow? On Red? On Blue? This sequence of commands and questions is repeated several times until everyone reaches the estuary. Then as fish have the students swim back up stream to repeat the game. But before recommencing, ask students (transformed back to water drops) what they think the design is about, and where they think most of the water is. A popular game; don't be surprised if students ask to play the game a 3rd time.

Reflection Discussion:

When the game is finally finished reiterate the initial question, "What is a watershed?" After playing the game, what do they understand about a watershed now? To support their new understandings use the example of a local or regional river showing its watershed on a map.

Follow-up with Activity 2: Building a small watershed model.