THEME:	Watershed
SCOPE & SEQUENCE UNIT:	What is a Watershed?
OBJECTIVE:	The shape of the land defines a watershed
ACTIVITY 2:	Building a small watershed (in a wash basin)

Notes:	Outdoor activity in schoolyard, followed by class time
Teacher Prep.:	Materials for model building
Time:	45 minutes

Skills:

- Critical & creative thinking
- Collaboration, teamwork, leadership
- Ecological literacy

Objectives:

- To build a model of a watershed (in a wash basin)
- To discover the fundamental principles of a watershed and the diversity that allows

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.

Background Information:

This activity builds on Activity 1. Moving in a watershed.

Materials:

Have materials in replicates for as many groups as class will be divided into, at least 4 groups:

large plastic basins to hold watershed models

large pieces of clear plastic to allow water to run through watershed

containers with water to release onto watershed models (ideally plastic water bottles with a lid with tiny holes in it)

digging tools, i.e. trowels

sand to be sourced from sandbox

Introductory Discussion:

With students in their groups, each with their respective model building materials (plastic, basin, trowel and water bottle), assign students the task of creating a model of a watershed. Let students know that sand taken from the sandbox needs to be returned. The sand goes in the bottom of the washbasin, the plastic is to go on top and protect the sand from getting wet. The details of the watershed are theirs to decide on and create. This is their opportunity to show what they understand about a watershed and water movement within it. Students need about 10 or 15 minutes to create and test their model with a simulation of a gentle rain.

Reflection Discussion:

Once every group is ready with their model, conduct a class tour of each model with the respective group of students explaining the features of their watershed. Dialogue on the different features among the watersheds. What features were common to all models? What were some of the differences between the models? How would they describe what a watershed is?

Return the sand to the sandbox, and round up all the model materials. Back in class explore web resources illustrating watersheds (see Resources).

Resources:

ProjectWET website: http://www.discoverwater.org/explore-watersheds/

Kidfish – all about lakes, rivers and fly fishing too, BC schools curriculum, covers topics of what is a river, what is a watershed – good static images of Fraser river watershed, no animation, no sound, but good text info http://www.kidfish.bc.ca/frames.html

Taking it Further:

Building a watershed model is also well suited at the beach, where sand and water, and a diversity of natural found objects are in greater supply. Using bigger sheets of plastic, students can then take more time to create more elaborate watersheds, offering more detail than a wash basin sized watershed allows.

This activity can also be done in the schoolyard with larger sheets of plastic, using a natural slope to assist with the models, and having a garden hose handy with water. This size of activity in the school yard requires more cleanup.