

We All Live in a Watershed

(To be done outdoors on a grassy area)



Approximate time: 15 mins.

This activity helps students understand and define a watershed. It also teaches students about the specific watershed in which their school is located. The We All Live in a Watershed activity of 1000 Drops is designed to be interdisciplinary in its application. When the core activity is integrated within a classroom discussion regarding water amounts and uses, regional and authentic watershed information, and human uses and impact on their watershed, students can develop an understanding about water quantity and quality in their hometown, their role in contributing to the health of their water, and an understanding of watersheds and their place in their own local watershed.

MATERIALS

- 10' x 10' tarp (larger if group is large)
- 5 gallon water container closed to pour from
- Long necked watering can
- Large open tub to drain water into at end of activity
- Large watershed map or maps (same map as used in Mapping Activity) and relief map if possible

COMMON CURRICULUM GOALS AND BENCHMARKS

The We All Live in a Watershed activity can help teachers meet Oregon Department of Education common curriculum goals and benchmarks for fifth grade within the following areas:

Science Inquiry—Use interrelated processes to pose questions and investigate the physical and living world.

English Language Arts—The practice of writing, prewriting, drafting, revising and publishing prepares students to better communicate across the subject areas.

Earth and Space Science—Understand physical properties of the Earth and how those properties change.

Physical Science—Understand structures and properties of

matter and changes that occur in the physical world.

Social Science—The study of the social sciences prepares students for responsible citizenship. It enables students to evaluate historical and contemporary issues, understand global relationships, and make connections between the past, present and future.

Mathematical Problem Solving—Select, apply and translate among mathematical representations to solve problems.

Science in Personal and Social Perspectives—Understand that science provides a basis for understanding and acting on personal and social issues.

GOALS AND OBJECTIVES

Students will:

- Be able to verbally describe a watershed
- Be able to verbally identify in which watershed their school is located
- Be able to name three components of a watershed unit

PROCEDURE

We all live in a watershed. So what's a watershed?

1. Outside, take a blue tarp and have students surround the edges to hold it up.
2. One or two students create a mountain by getting under the tarp.
3. Other students "rain" water on the mountain, catching it by keeping the edges of the tarp high enough (ridge lines). Six to eight students can hold the edge of the tarp while one to two students use the long neck watering can to pour water into the center of the tarp. Students will form lakes, and streams from one area of tarp to another by raising and lowering different sections of the tarp. The challenge is to keep the water contained and then students pour it off the tarp back into large container.

DISCUSSION

Transition to maps. Identify your local watershed and its boundaries using the same terms you used in the activity. (**Uplands**, ridgelines, **basin**, watershed, **stream channels**, rivers, lakes, ponds etc.) Have a relief map of a watershed if possible to compare to the model you created with the tarp. All water is cycling through and we use it again and again.

QUESTIONS

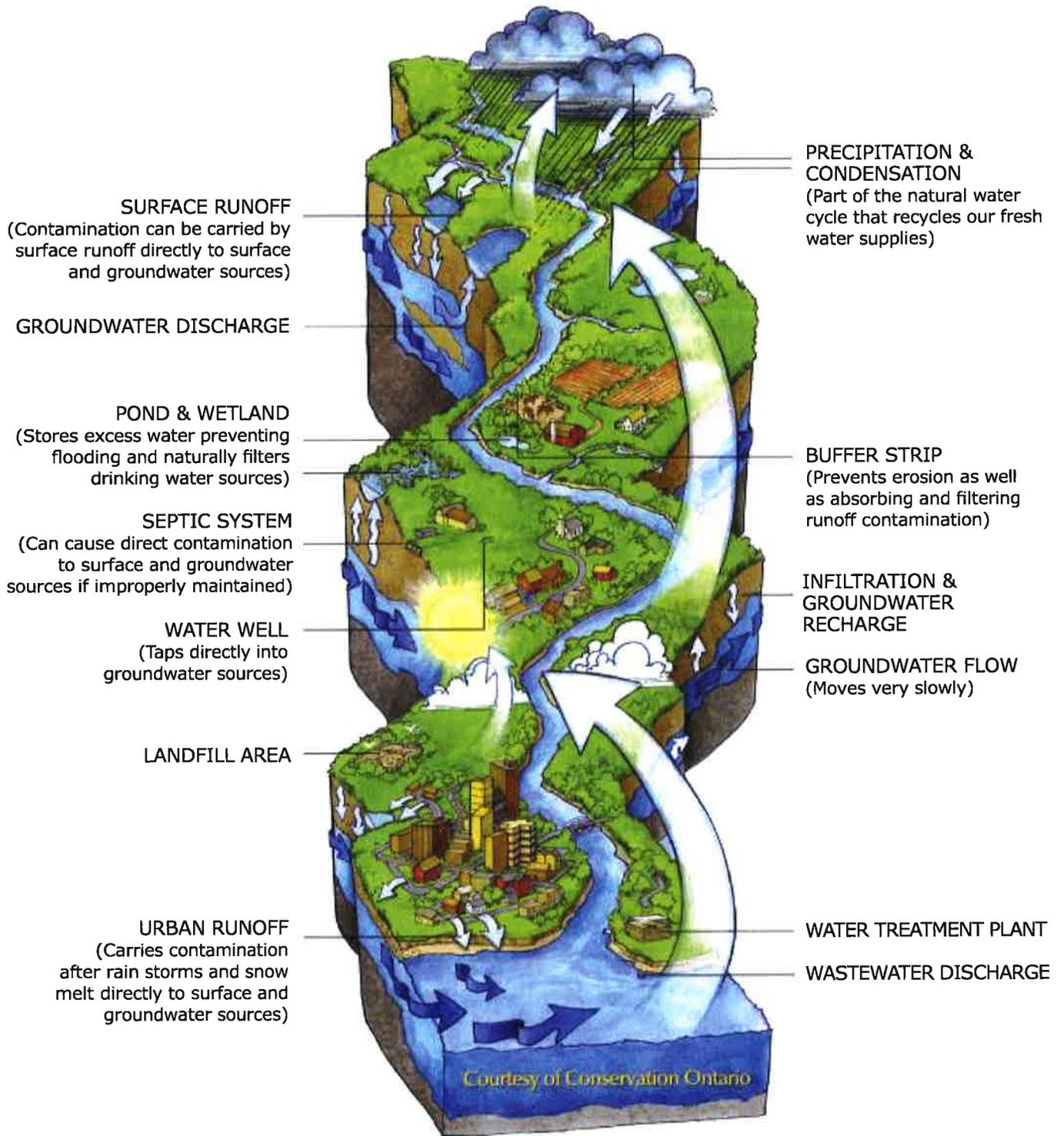
- Where are we in our watershed? Have students refer to relief map or *HWI* map.
- Who is downstream of us?
- Who are we downstream of?
- Is it important how we treat our water as it flows by us?



Tumalo Creek Watershed

With Mount Bachelor and Tumalo Butte in the distance, the ridges and valleys of the Tumalo Creek drainage are part of the larger upper Deschutes watershed.

Watershed Diagram



GLOSSARY: WATER & YOUR WATERSHED

Basin—A region drained by a single river system.

Gray water—Wastewater from bathroom, kitchen, and laundry activities, esp. as it may be recycled for toilet and outside water uses.

Ridgelines—The horizontal line formed by the juncture of two sloping planes.

Stream channels—The bed of a stream or river.

Upland—Land or an area of land of high elevation, especially when level.

Watershed—The region draining into a river, river system, or other body of water.