THE WATER CYCLE

Subject

Science

Objectives

The student will (1) be able to explain the water cycle, and (2) label the diagram and explain the components of the water cycle.

Materials

Students for Salmon Journal
Art Supplies

Size/Setting/Duration

Whole class/classroom/~30 minutes

Background

Three-quarters of the earth is covered by water. A small quantity of this water is regarded as fresh water, and only a small amount of the fresh water is usable by humans. The water cycle is an endless process of water being exchanged among clouds, land, and oceans; the water cycle recycles all the water that covers the earth.

In Washington water comes from moisture-rich clouds that form in the Pacific Ocean and attempt to rise over the Cascade Mountains. The water vapor cools as it rises, condenses, and falls as rain in our watersheds. The water can form as snow and become trapped in glaciers, or it can form as rain and fill our lakes and streams.

Activity

1. Introduce the idea that you are going to be studying watersheds. To understand watersheds you first have to know where water comes from - The Water Cycle. The sun drives the water cycle since water changes form due to temperature.

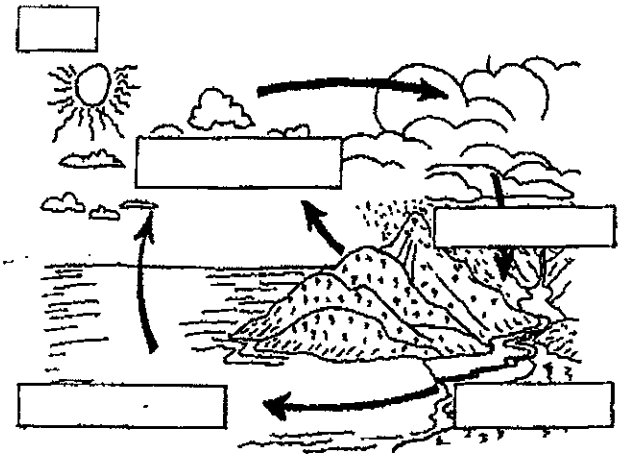
2. Explain that the amount of water that is present on the earth now is the same amount as when time began. The only thing that is different is that the water changes form. Go through the water cycle with the students. Explain that a cycle is a circle. Ask students where they think water comes from. Once rain is mentioned tell them that there are different forms of water: water vapor, snow, hail, fog, etc. Tell the students that all of these are categorized as **precipitation.**

3. When rain or precipitation falls, it soaks into the ground. Rain fills up lakes, rivers, and wetlands; it also recharges aquifers. This concept can be introduced as **saturation.**

4. As water sits in one place, such as a lake or wetland, or even pools upon a leaf, it will turn from the liquid state of water to vapor because it is heated. This is called **evaporation.**

5. As the water vapor rises, the air gets colder, and the water vapor will begin to condense to form clouds. If the air cools even more, the water vapor will condense further and turn back into a liquid state. This process is **condensation.**

6. Upon completion of your discussion, have the students fill in *The Water Cycle* worksheet, page 4, from the *Student Journal.*



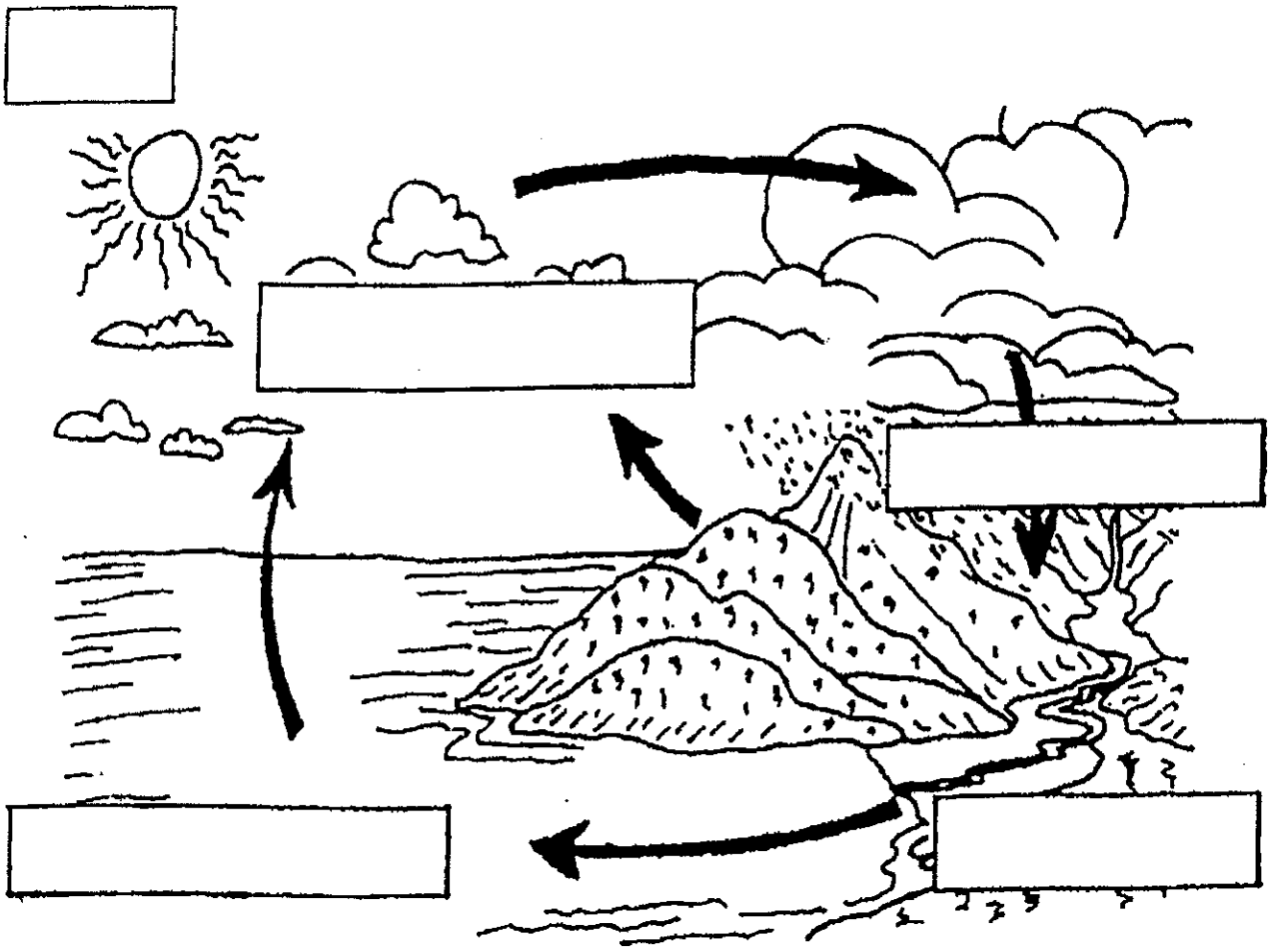
EALR Information The Water Cycle

Component	Benchmark	Assessment
1.1 Science Use properties to identify, describe, and categorize substances	Use physical properties to describe the three sates of matter	Students will determine the place in the water cycle where water is in vapor, liquid, and solid states, and describe why
1.5 Science Understand that interactions among and within systems cause changes in matter and energy	Explain the water cycle	Students will independently complete *The Water Cycle* worksheet in the *Student Journal* on page 4

The Water Cycle

The **WATER CYCLE** is an important part of a watershed. The energy to move the water through the cycle comes from the SUN. Water is <u>always</u> moving through this cycle by the four ways that your teacher talked about with you.

Label the picture with the right words from below.



evaporation **condensation**

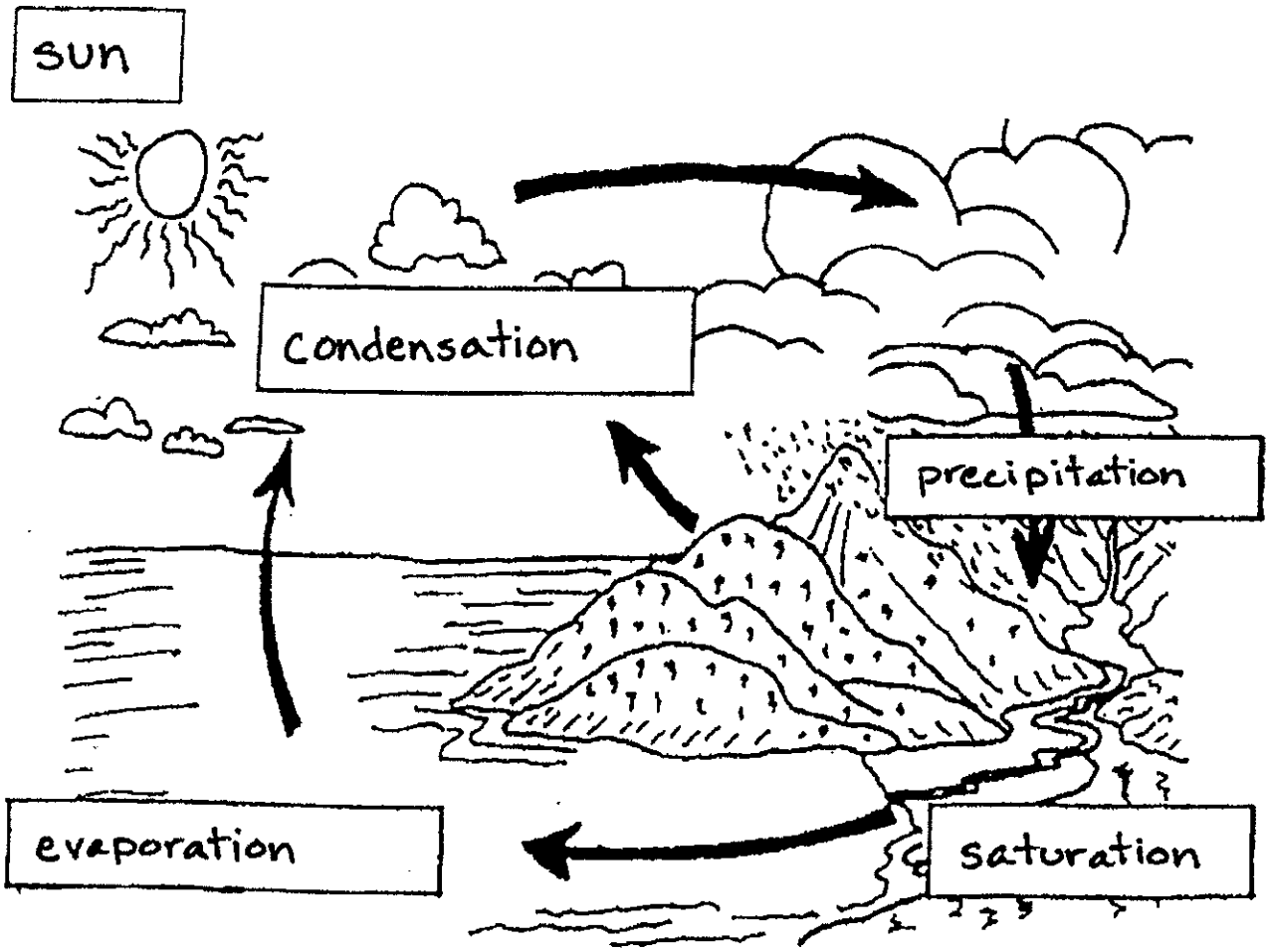
SUN

precipitation **saturation**

The Water Cycle

The **WATER CYCLE** is an important part of a watershed. The energy to move the water through the cycle comes from the SUN. Water is <u>always</u> moving through this cycle by the four ways that your teacher talked about with you.

Label the picture with the right words from below.



evaporation **condensation**

SUN

precipitation **saturation**