

## Colorado - The Headwaters State

**Subject Area:** Science

**Unit Title:** Water Resources

**Grade Level:** 4th & 5th grade

**Objectives:** Each student will demonstrate their knowledge of the role of water in Colorado.

**Colorado Content Standards to be covered:**

### GEOGRAPHY

**Standard I** - Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places, and environments.

**Standard V** - Students understand the effects of interactions between human and physical systems and changes in meaning, use, distribution, and importance of resources.

### SCIENCE

**Standard I** - Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.

**Standard II** - Physical Science: Students know and understand common properties, forms, and changes in matter and energy.

**Standard III** - Life Science: Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.

**Anticipatory Set:** Create and model filling out a Vocabulary Map (see below left) by having students fold a piece of paper into 1/2 and then 1/2 again. Then they should open the paper and write the word “headwaters” in the middle. In the upper left corner, they should write the definition or “what it is.” The definition is: The

source water from which a river rises.

Then, they should write in the upper right “what it isn’t.” In the bottom left, write an example such as: the Colorado River starts in the Rocky Mountains, etc.

Finally, in the lower right, they should draw a picture or use the word in a sentence. Hand out copies of the Colorado map handout (last page) showing the Continental Divide and the directions water flows out of our state.

<b>What it is:</b>	<b>What it isn't:</b>
<b>Vocabulary Word:</b> <b>Headwaters</b>	
<b>Example:</b>	<b>Draw a picture or write a Sentence:</b>

### Input:

#### Colorado–The Headwaters State

In Colorado, most of our water starts as snow in the mountains. This

snow melts in the spring and begins its journey toward an ocean. The process may start as a trickle high in the mountains, but the trickles merge and eventually form our mighty rivers – the Colorado, South Platte, Arkansas and Rio Grande, among others. The area that feeds each river is a watershed.

In Colorado, we have a special responsibility when it comes to protecting water quality. That’s because we’re a "headwaters state," which means that the snowfall in our mountains is a major source of water for eighteen states and parts of Mexico. A lot of people depend on us for water.

Water from Colorado grows large amounts of food, provides recreation, hydroelectric power and wildlife habitat. This water is used in homes and for industry throughout the West.

If you go skiing or sledding in the mountains this winter, you may be having fun on snow that will end up in someone’s house next summer in Los Angeles, Phoenix, or Las Vegas. Colorado water travels a long way.

The next time you see grease in the driveway or other sources of polluted runoff, think about the children your age in other states who are counting on us for clean water. As citizens of Colorado, each of us can play a role in protecting our water and environment. One thing each of us can each do is to conserve.

**Discussion & Answers:**

Q. Why has The Colorado River been called “The Mother of Rivers?”

A. More rivers begin in Colorado than in any other state.

Q. Most of Colorado’s rivers flow in what direction?

A. West

Q. Name four states that border Colorado and share Colorado’s water.

A. Wyoming, Utah, New Mexico, Kansas and Nebraska

Q. Look up the word “tributary” in the dictionary. What does it mean?

A. A stream or river that flows into a large one.

**Procedures/Activities:**

**Keep It Clean Campaign**

1. Have students design “Keep Our Water Clean” posters to display throughout the school. Encourage students to illustrate methods of keeping water clean and write original slogans, poems or taglines that will attract attention.
2. Students may wish to create and perform their own skits and plays depicting ways to keep water clean.

**Checking for Understanding:** At the end of this section choose one of the following for a quick check: ask the students to partner share and think, pair and share, do a quick 3 word write up as an exit slip, do a quick sketch or give each other a quick thumbs up or down to check for understanding. Determine the level of mastery for each student and provide individual remediation as needed.

**Closure:**

Review students’ posters, etc. and talk about the importance of keeping Colorado water clean. Ask each student for one thing they can do to keep water clean.