

## CO State Standards

| <br><b>7th grade lessons</b> | <b>description &amp; topics covered</b>  | <b>field (f)<br/>classroom (c)</b> | <b>season</b>   | <b>Life Science 1</b> | <b>Geography 1</b> | <b>Geography 2</b> | <b>Economics 2</b> |
|---|--|------------------------------------|-----------------|-----------------------|--------------------|--------------------|--------------------|
| <b>Introduction to Watersheds</b>   | This lesson gives students a basic introduction to watersheds, their physical form and functionality. We will discuss the water cycle and the movement of water throughout the world. We will discuss the roles that geography, topography and human activities play in shaping watersheds.  | c                                  | any             |                       |                    |                    |                    |
| <b>Water Quality Field Study</b>  | This activity gets kids out on the water observing water quality characteristics that can tell us about the overall health of the waterway. We learn about the various organisms (plants, fish, bugs, birds, animals) that we might expect to encounter and what their specific characteristics and tolerances tell us about the watershed. Participants will observe the interaction between the river and surrounding lands to understand what influences the geography, climate, and human activities might have on the waterway.   | f                                  | fall/<br>spring |                       |                    |                    |                    |
| <b>Macroinvertebrate Sampling ("Bug Kicking")</b>   | This activity focuses on macroinvertebrates and their role in watersheds. Studies of macroinvertebrate populations are often used as proxies for other water quality characteristics and this gives students the chance to experience macroinvertebrate collection first-hand. We learn about the various organisms (plants, fish, birds, and mammals in addition to the macroinvertebrates) that we find in the Upper Colorado and Eagle River basins and what their genetic characteristics and specific tolerances tell us about the watershed. <i>Please note: your school may need to provide transportation for this lesson.</i> | f                                  | fall/<br>spring |                       |                    |                    |                    |

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|---|--|------------------------------------|-----------------|-----------------------|--------------------|--------------------|--------------------|
| <b>First Come, First Served: Colorado Water Law</b>   | This lesson introduces students to the concepts of water rights, water law and the value of water in our modern economy. We use maps to understand the natural distribution of water in the West as well as the infrastructure through which we transport water from one place to another. We learn about the connection between water and certain economic activities. We will also discuss the 1922 Colorado River Compact at length: how it governs water use and water rights; it's historic roots and relevance; how it has inspired conflict and cooperation over the past 90 years; and future implications of this complicated system. | c                                  | any             |                       |                    |                    |                    |
| <b>Watershed Hike</b>   | This exploration gives kids a hands-on way to understand watersheds. By observing geographic patterns in areas already familiar to them, kids will better understand the physical form and functions of a watershed. We will also discuss the various factors that distinguish watersheds and their inhabitants. <i>Please note: your school may need to provide transportation for this lesson.</i>   | f                                  | fall/<br>spring |                       |                    |                    |                    |