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## The Greatest Snow on Earth

(*Pre-visit lesson plan*)

### Core Connection

**Core Connection:** Fourth Grade *Science* Standard 1

Students will understand that water changes form as it moves through the water cycle.

**Museum Exhibit connection:** Greatest Snow on Earth, Perfect Powder Recipe, Water Content, Snowflake Generator, Lake Effect

**Summary:** Students will review the water cycle, focusing in particular on the different forms water takes in the precipitation stage of the cycle.

**Lesson Learning Objectives:**

1. Students will complete a water cycle worksheet, correctly labeling the different stages of the cycle.
2. Students will understand that when *precipitation* occurs during cold winter months, water often takes the form of snow.

**Materials:**

1. Water cycle worksheet (included)
2. Greatest Snow on Earth license plates (included)
3. Colored pencils or crayons and paper

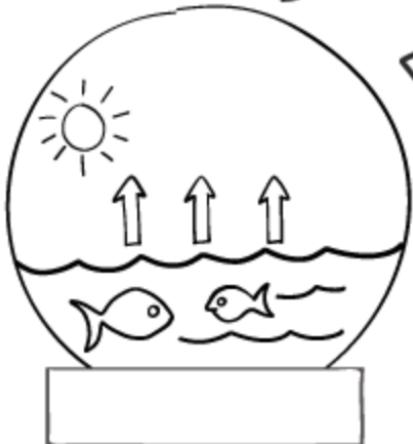
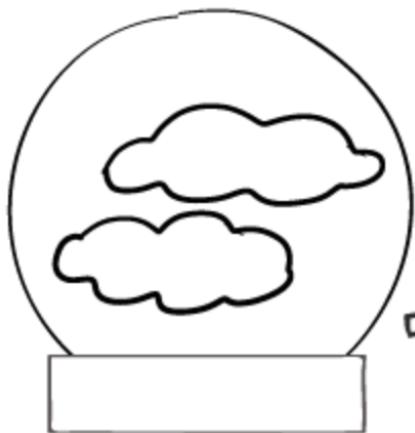
**Approximate Time:** 35 minutes

**Instructions:**

1. Briefly review the water cycle and guide students through the worksheet.
2. Demonstration: Using ice cubes, a glass of water, and a wet towel to show water in solid, liquid and gaseous forms, discuss the different forms of water, where they appear in the water cycle and how the sun influences those forms. *Where in the water cycle do we find ice? Where do we find liquid water? What about gaseous water? When the towel is left out in the sun, where does the water go? What happens when the sun shines on the ice cubes for too long? Where does the water go in an open container? What about in a closed container?*

# The Water Cycle

Color and complete the cycle with these words:  
Precipitation, Collection, Evaporation and Condensation



Name \_\_\_\_\_

3. Ask students to write as many different types of water they see around them. *Clouds, rivers, lakes, rain, snow...*
4. Discuss the students' lists and direct the discussion towards rain and snow, explaining that these are types of precipitation. *Why does water sometimes fall as rain, and sometimes as snow? Explain that location and temperature affect precipitation. If precipitation occurs in Hawaii in the middle of the summer, what will it look like? When winter precipitation occurs in the Utah mountains, what does it look like? Where does the snow go in the summer?*
5. With the discussion focused on snow, show the students a photo of the "Greatest Snow on Earth" Utah state license plate. *Why is this printed on our license plates? Why is there a skier on it? If you were a skier, what would make snow "the greatest"? Instruct students to write down their answers to these questions.*
6. After the field trip, compare the students' ideas about the "Greatest Snow on Earth" with what they learned at the Alf Engen Ski Museum. *What did you learn about Utah's snow and why it's considered the "greatest"?*

**Extension Ideas:**

- Instruct students to design and draw a water-themed license plate for another state, based on its location, temperature, weather patterns, etc. Some research might be required. Students may call on their own experience visiting other states. *Example: Hawaii might be the "Greatest Surf on Earth," while Arizona might be the "Greatest Cactus on Earth."*

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