

Name -

Date-

Period -

## The Water Cycle Student Capture Sheet

### Guiding Questions

What processes does a droplet of water go through as it moves through Earth's four systems?

### Engage

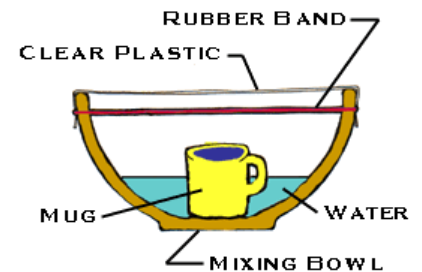
1. Where does our drinking water come from?

2. How do we use water in our daily lives?

### Explore – Model Water Cycle

*Materials:* large metal or plastic bowl, bucket of water, plastic wrap, dry coffee mug, large rubber band or piece of string

1. Put the bowl in a sunny place outside.
2. Using the pitcher or bucket, pour water into the bowl until it is about  $\frac{1}{4}$  full.
3. Place the mug in the center of the bowl. Be careful not to splash any water into it.
4. Cover the top of the bowl tightly with the plastic wrap.
5. Tie the string around the bowl to hold the plastic wrap in place.
6. Let the model sit in the sun outside while you complete the next section of the lesson.



### Explain – Webquest

1. Let's begin by following a molecule of water as it makes its way through the water cycle in this short animation. <http://pmm.nasa.gov/education/videos/tour-water-cycle>

- Is there a specific beginning or end in the water cycle? Why or why not?
  
- What "powers" the water cycle?

# Global Precipitation Measurement Mission

2. Let's learn more about the water cycle and the importance of water to life on Earth.

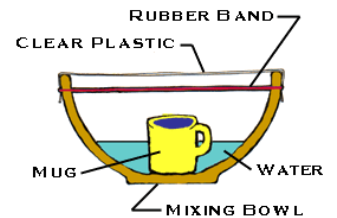
<http://gpm.nasa.gov/education/videos/water-water-everywhere>

- What drives water evaporation?
- Why is water vapor fresh water when it rises from the ocean?
- Why might freshwater in the form of snow take longer to enter the water cycle again than liquid precipitation?
- What is an aquifer?
- What role do people play in the water cycle?

## **Explain - Model Water Cycle**

What do you observe? After the mist starts to drip into the mug, peel back the plastic and record what you see in the mug.

What does the water in the bowl represent? What does the plastic wrap represent?



## **Evaluate**

Draw a picture of the water cycle in the space below. Add arrows and words to label as needed.

**Extend** Try defining these terms in your own words: hydrosphere, atmosphere, geosphere, biosphere. Add the words to your water cycle diagram.