

# Global Precipitation Measurement Mission

Name---

Date---

Period-

## Water in Earth's Hydrosphere Student Capture Sheet

### Guiding Questions

What is the hydrosphere?

What is the condition of water in the hydrosphere right now? How do you know?

Why is it important to study the condition of the surface waters?

### Engage

- As you walk by the stream in your neighborhood, you notice several dead fish floating in the water. What could be some reasons for this?

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- The hydrosphere is \_\_\_\_\_  
\_\_\_\_\_



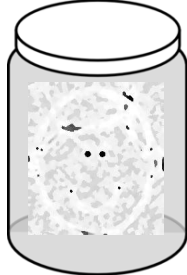
- Prediction: Water is in \_\_\_\_\_ (good condition, somewhat good condition, poor condition) in your local hydrosphere today.

### Explore

Record your data below. Remember to include units!

	Data	Notes
<b>Water Temperature</b>		
<b>pH</b>		

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Transparency			
			
<b>D Very Transparent</b>	<b>D Somewhat Transparent</b>	<b>D Not Transparent</b>	
Good Quality	_____		Lower Quality

## Explain

Based on the data you collected, water is \_\_\_\_\_ (good condition, somewhat good condition, poor condition) today. Provide evidence to support your answer. Hint: Use the “Did You Know” information on the instruction sheet to help you understand your data.

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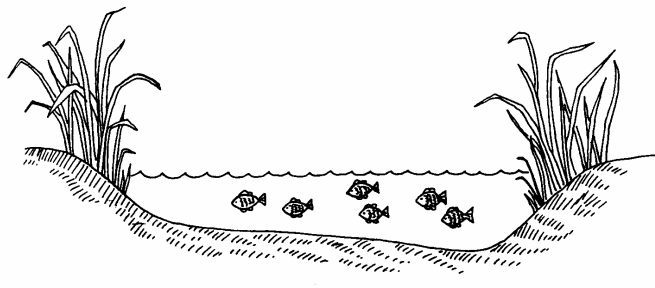
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## Evaluate

On the drawing below, label or add at least 3 factors that make the pond considered “in good condition.”



Why is it important to study the surface water in your neighborhood?

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## Hydrosphere Data Collection

### Water Temperature

1. Hold the thermometer at least 6 centimeters into the water for at least 2 minutes.
2. Record the temperature in degrees Celsius.



*Did You Know: Warmer water usually allows more organisms to live in the water, however if the water gets too warm, they can grow too much or die, which pollutes the water. If the water gets too cold, organisms cannot survive.*

### pH

1. Dip the pH strip into the water and immediately pull it out.
2. Compare the color on the strip to the color chart on the container and record your data.



*Did You Know: pH scale goes from 0 – 14 and measures the level of acid in the water, which can determine if it's safe to drink. Pure water has a pH of 7. The lower the number the more acidic; the higher the number the more basic or alkaline. A healthy stream is between 5.5 and 8.*

### Transparency

1. Fill the jar with water.
2. Hold the jar up in front of your group member's face. Observe how clearly you can see their face through the water. Use the chart to determine the approximate transparency.



*Did You Know: Transparency refers to how far light can travel through the water. The clearer the water, the better. That means fewer particles in the water, which allows lighter so plants can grow.*

### **Remember!!!**

Gather all of your equipment before you leave!

Empty the water from the jar.

Keep the used pH strip out of the jar so it does not contaminate the others. Keep the unused pH strips dry and the container sealed tightly.