

STEM Sims

Lesson 1: What is the Relationship Between Season and Water Temperature?

Many locations experience four distinct seasons: spring, summer, fall, and winter. Air temperature changes during the various seasons can cause bodies of water to also change temperature. Do differences in water temperature occur in a regular pattern, or are the changes less ordered?

Doing the Science

- 1. Start the Water Quality Simulation by clicking on the "Simulation" tab.
- 2. Select the "Sisson Pond" location.
- 3. Next, select the "Temperature" icon.
- 4. Move the cursor to a position on the body of water in the bottom right frame and click on the water.
- 5. Note and record in Table 1 below the month and water temperature displayed in the popup box.
- 6. Click the forward arrow next to the month "September" at the top, left of the screen and then select the body of water.
- 7. Click on the "×" (close icon) at the top right-hand corner of the "Temperature" pop-up box in the middle of the screen.
- 8. Repeat steps 4 – 7 until you have collected temperature data through the month of August.

Month	Temperature (°C)	Month	Temperature (°C)
September		March	
October		April	
November		May	
December		June	
January		July	
February		August	

Table 1.

Do You Understand?

- During which month was the water temperature the highest? 1.
- 2. During which month was the water temperature the lowest?
- During which season did the water temperature change the most? Propose an explanation as to 3. why this season produced the largest change in water temperature.
- 4. Did the water temperature change in a consistent pattern, or were the changes less ordered? Please explain your answer. Draw a graph on the back of this paper to support your explanation.