Name	Period	Date	



STEM Sims

Lesson 1: How Are the Temperature and Dissolved Oxygen Concentration in Water Related?

Gaseous oxygen is one of many substances found in bodies of water, such as lakes and rivers. A number of factors affect the amount of oxygen dissolved in water. Does temperature impact how much oxygen water can hold?

Doing the Science

- 1. Open the Fish Experiment Sim.
- 2. Move the "Temperature" lever on the bottom of the fish bowl to the far-left position.
- 3. Note and record the temperature and dissolved oxygen concentration in Table 1.
- 4. Slide the "Temperature" lever to the right to about the middle position.
- 5. Note and record the temperature and dissolved oxygen concentration.
- 6. Slide the "Temperature" lever to the far-right position.
- 7. Note and record the temperature and dissolved oxygen concentration.

Do You Understand?

1. Make a graph of temperature versus the dissolved oxygen concentration.

DO2 Concentration (ppm)	
	Temperature (°C)

- 2. What is the relationship between temperature and the dissolved oxygen concentration in water?
- 3. What implications might the relationship you described in the previous question have for living aquatic organisms?

Table 1.

Trial	Temperature (°C)	Dissolved Oxygen Concentration (ppm)
1		
2		
3		