Name_____ Period _____ Date _____

Pool Bacteria

STEM Sims

Lesson 3: Testing Chlorine Levels

Chlorine is a chemical that is frequently used in swimming pools to kill bacteria to keep the water safe for swimming. Sunlight breaks down chlorine so that more chlorine has to be added frequently to maintain a stable chlorine level. Can you test the chlorine level and keep the pool bacteria free?

Doing the Science

1. Start the Pool Bacteria Simulation by clicking on the "Sim" tab.
2. Click on the "Run" button
3. Click on the "Chlorine" checkbox on the section labeled "Tests."
4. Click on 0, 6, and 12 under "Time (hours)" to find the chlorine level at that time period. Record the chlorine level in Table 1 below.
5. Hover over the children to see their reactions to swimming in the pool. Record some of their comments in the table.
6. Click on the "Reset" button.
7. Repeat steps 2-6 with the number of swimmers designated in Table 1.

Table 1.

Number of Swimmers	0 Hours		6 Hours		12 Hours	
	Chl.	Comments	Chl.	Comments	Chl.	Comments
5						
6						
7						
8						
9						
10						
15						
20						

Do You Understand?

1. Is there a relationship between the increase of the number of swimmers and the water's chlorine level? Explain.

2. Is there a relationship between the water's chlorine level and time? Explain.

3. What is a good chlorine level range in a pool? What happens if there is too much or too little?