



# Pool Bacteria

## STEM Sims

### Lesson 4: Testing Chlorine Levels with Cyanuric Acid

Cyanuric acid is a chlorine stabilizer and is used to stop chlorine from escaping because of the ultraviolet effects of the sun. Cyanuric prevents some of the chlorine from breaking down, helping chlorine stay in the pool longer. It's time to test chlorine levels and find out how much cyanuric acid affects chlorine levels!

#### 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" and adjust the "Number of Swimmers" to 5.
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. Click on the "Reset" button.
6. Click on the "Add Cyanuric Acid" checkbox and then click the "Run" button.
7. Click on the "Chlorine" checkbox on the section labeled "Tests" and repeat steps 2-6.
8. Repeat steps 2-7 with the number of swimmers designated in Table 1.

**Table 1.**

Number of Swimmers	0 Hours		6 Hours		12 Hours	
	Chlorine	Chlorine w/ Cyanuric Acid	Chlorine	Chlorine w/ Cyanuric Acid	Chlorine	Chlorine w/ Cyanuric Acid
5						
6						
7						
8						
9						
10						
15						
20						

#### Do You Understand?

1. What effect did the cyanuric acid have on the chlorine level?
  
2. Would you want to add cyanuric acid to your pool? Why?