



# Flu Transmission

# STEM Sims

## Lesson 4: How Does the Use of Antibiotics Affect the Spread of Influenza Through a School?

Antibiotics have been shown to be highly effective in reducing the severity and spread of infections caused by bacteria. Can the application of antibiotics to students reduce the number of infections due to influenza?

### Doing the Science

1. Start the Flu Transmission Simulation by clicking on the “Sim” tab.
2. Click on the “Antibiotics” button under the Factor menu on the left-bottom of the screen.
3. Click on the “Run” button at the bottom center of the screen.
4. Note the Progress bar, which shows time running for a six-week period.
5. Click on the “1” icon on the Progress bar.
6. Count and record in Table 1 the number of infected students at the end of the first week of the flu outbreak.
7. Click on the “2” icon on the Progress bar.
8. Count and record in Table 1 the number of infected students at the end of the second week of the flu outbreak.
9. Repeat this process until you have counted and recorded data for all six weeks.

Table 1.

Week	Infected	Uninfected	Week	Infected	Uninfected
1			4		
2			5		
3			6		

### Do You Understand?

1. As time progressed, how did the number of students who were infected by the flu change?
  
  
  
  
  
  
  
  
  
  
2. Compared to your results from Lesson 1, how did the use of antibiotics affect the spread of influenza in the school?