

Name _____ Period _____ Date _____



Flu Transmission

STEM Sims

Lesson 1: How Does Influenza Spread Through a School?

Influenza is a virus that causes the common illness called the flu. The flu is responsible for thousands of deaths each year. How does this disease spread through a student population?

Doing the Science

1. Start the Flu Transmission Simulation by clicking on the “Sim” tab.
2. Click on the “None” 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. Provide a possible reason for your answer to the previous question.
3. Discuss implications of the way that diseases spread if the infection was of a more severe nature (like smallpox) that is 95% lethal.