



Flu Transmission

STEM Sims

Lesson 1: How Does Influenza Spread Through a School?

Have you ever been sick? Have you ever had the flu? The flu is short for a virus called influenza. Many thousands of people die each year from the flu. The flu most often strikes during the winter months when people are inside more. Can you find out how the flu spreads? Grab a tissue and get ready for this activity.

Here are some definitions to help you in your investigation.

- Genes - the material inside cells that results in various traits
- Virus - a small collection of material that make up genes that can infect and damage cells
- Influenza - a virus that attacks the lungs, throat, and nose
- Epidemic - a disease that is widespread
- Pandemic - a disease that has spread worldwide
- Linear growth - growing by the same amount each time
- Exponential growth - growing by doubling each time

Preparing for the Science

1. A person starts with \$2 in their bank account. Each week that person receives \$5 for completing chores around the house. Use this information to complete Table 1 below.

Table 1.

Time	Money earned	Total Money in their bank
Start	0	\$2
End of Week 1		
End of Week 2		

End of Week 3		
End of Week 4		

- The previous example is of linear growth. Each week the person's bank account increased by the same amount. How much did the person's account increase by each week?
- On your own paper, create a graph of total amount of money in the bank versus number of weeks.
- A different person also starts with \$2 in the bank. However, each week this person has the total money in the bank doubled. To double something means to multiply the number by 2. Use this information to complete Table 2 below.

Table 2.

Time	Money earned	Total Money in their bank
Start	0	\$2
End of Week 1		
End of Week 2		
End of Week 3		
End of Week 4		

- The previous example is of exponential growth. Did the person's total bank account increase by the same amount each week?
- On your own paper, create a graph of total amount of money in the bank versus number of weeks.

Doing the Science

- Start the Flu Transmission Simulation by clicking on the "Simulation" tab.

