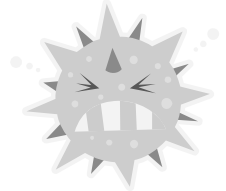


# The Spread of a Virus Through a Population



After learning background information, write down the following information:

<b>Question</b> (e.g. why are we doing this?)	
<b>Hypothesis</b> (what do you think will happen?)	
<b>Materials and Methods</b>	

## Data Collection

How many students are involved in the activity (total number of students in class)? \_\_\_\_\_

**Hint:** to calculate percentage of students of infected, follow this formula:

$$\text{Percentage of students infected} = \frac{\text{Number of students infected}}{\text{Total number of students in class}}$$

Number of students contacted	Percentage of students infected

## Data Analysis

Plot your data on the graph below. Remember to label the X and Y axis. Next, draw a line that connects your data points (see example on board).


## Results and Conclusions

Answer these questions to the best of your ability. Feel free to discuss questions with your classmates.

1. What did the phenolphthalein represent in this activity? Explain.
2. Before adding phenolphthalein, could you tell by looking at the liquid if it was infected? How is this similar to a real virus (for example, when you catch a cold?)
3. As the number of people you contacted increased, what happened to the percentage of infected students in the classroom?
4. Based on your results, was your hypothesis supported? Why or why not?
5. Does this experiment answer our question? Why or why not?
6. What else does the graph show us?
7. What other factors besides the number of people you contact do you think could influence how fast a disease spreads in a population?
8. Why should we care? How do these kinds of data apply to your life?
9. What are two other testable questions you can think of that are related to diseases?