



## **Who's the Source of the Infection?**

### *Hands-On Activity*

#### **Background Information**

Viral diseases can be spread through contact with a person infected with the disease. Some diseases, such as influenza, measles, and smallpox, spread rapidly and are of great concern to public health organizations.

Used in risk analysis, models help predict the spread. Once scientists analyze the risk, they use models to develop plans to contain the virus and to make recommendations for preventive behavior changes. In this activity, you'll see how an infectious disease can spread and you'll create a plan to contain it.

#### **What You Need**

- ♦ small square of paper
- ♦ pencil or pen
- ♦ cardboard box

#### **What to Do**

1. Write your name on one of the small squares of paper, and place it in the box.
2. Your teacher will select one name from the box. This person, who will remain a mystery for now, has a virus.
3. For the first round, tap two of your classmates at random. Record their names in the chart on the worksheet.
4. Tap two different classmates for round two, and record their names on the worksheet.
5. Now for round three, tap two additional classmates and record their names on the worksheet.
6. When everyone is finished with round three, your teacher will reveal the name of the "infected person."
7. Look at your worksheet chart to see if you had direct contact with this person. If so, you had direct contact with the infected person. Raise your hand until your teacher has recorded your name on the board.

- 8.** Now check your worksheet chart again to see if you had contact with any of the people listed on the board. If so, you had indirect contact with the infected person. Raise your hand until your teacher has recorded your name on the board.
- 9.** Using the lists on the board, complete the worksheet questions and activities.

## Worksheet Who's the Source of the Infection?

Name \_\_\_\_\_

Round	Names of two classmates you tapped
1	
2	
3	

1. How many people had direct contact with the infected person? How many had indirect contact?

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2. Was there anyone who did not have contact with the infected person? If so, do you think that would have been true if you'd done a round 4?

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3. Using names, lines, and arrows to show the path of the infection, create a model that shows how it spread through your class.

4. Based on the model you created, determine the rate at which the virus spread. Then create a plan for how you could have slowed or prevented its spread if you'd known the name of the infected person. How would your plan change if you knew the virus was influenza, which is spread by sneezing?