Name:
 Date:

 Life Science
 Period:

Activity: How Viruses Travel

Objective: Students will

- understand how certain viruses travel through a population by simulating the transmission of a communicable disease
- analyze data to identify the originally infected person or calculate the percent of infection after the simulated transmission process

Materials:

- One film canister for each student, numbered 1-4
- Flour
- Baking soda
- Vinegar
- Paper for note taking

Procedure:

- 1. Write down the name of two other students in the room.
- 2. Select a film canister from the front of the classroom and return to your seat. Some students in the class have just contracted a virus you do not know who is carrying it.
- 3. You are going to a party and share your soda with the two names on your list. If someone else comes to then share, you must share your soda with them you cannot decline.
- 4. Go to each name on your list and exchange powders by pouring all the powder into one canister; then shake and divide the powder evenly back into the two canisters.
- 5. On your paper, write down the order of the students with whom you have exchanged powders. (Ex.: Lisa wrote down Kelly and Sue, but Emily wrote down Lisa and Amy so Lisa would have Kelly, Emily and Sue on her notes.)
- 6. Once everyone has exchanged powders, your teacher will pour vinegar into each canister. If baking soda is present, the powder will foam. If flour is the only powder in the canister, the vinegar will sit on top of the flour and will not foam.

Analysis:

1. List all of the students who <u>have been</u> infected and the order in which they exchanged powders:

2. List all of the students who <u>have not been</u> infected and the order in which they exchanged powders:

3. With a partner, determine who you think the originator(s) of the virus are.

Conclusion:

Write a paragraph summarizing your knowledge of virus transmission.