

Classroom Disease Transmission Lab



Name _____
Period: _____ Date: _____

This lab will simulate the transmission of a viral disease whether it is a cold or flu virus, Ebola, measles, or a sexually transmitted disease. It is important that you realize the ease which viruses like these can be carried and spread. Very often an infected person will have no apparent symptoms. They will however be a carrier of the infectious disease. Our challenge in this simulation will be to find the original disease carriers in our class.

Hypothesis

Prediction who are the two carriers in this class? _____ and _____.

Please explain your reasoning: _____



Procedure

1. You will be given a small beaker that will have a clear liquid in it. This liquid represent your bodily fluids—saliva, mucous, waste, or sexual fluids. Two of the students in this class have been secretly given an infectious disease caused by a virus.
2. You will be given several minutes to casually (meaning slowly) move about the room and meet other students.
3. I would like you to greet them and politely say “How are you?”
4. Then shake hands.
5. Make small talk like ask what their favorite “whatever”(food, movie, color, game, TV show, etc.). Then ask to trade (some bodily fluid) with them. Students may choose NOT to trade with anyone.
6. To trade all you do is take squirt of the fluid from your beaker and squirt it into their beaker and they do the same.
7. Write down who you traded with—use the table below.
8. Also ask them at least one person they have traded with before you. Two maximum.
9. You can only exchange with up to four people maximum but it can be less or no one at all.

Transmission Data Table

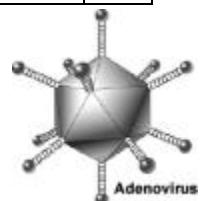


*Test Results: Positive (+) virus is detected; Negative (-) little or no virus

Fluid will change to shades of orange/red if virus is present.

Person(s) with whom I traded (came in contact)	Persons they traded with previously and their test results			

My Test results: Positive (+) virus is detected OR Negative (-) little or no virus



Data Analysis

1. Create a map showing who infected whom and the order/sequence of infection. That is, make a sequence path of infection of how the virus traveled to you. Hint: earlier the exposure/contact with the original virus carriers, stronger the color change.

2. Based on the test results of everyone and the data you collected, who do you determine were the carriers/transmitters of the disease?

_____ and _____

3. Please explain your reasoning: _____

4. Record here the two people who were the originally infected people (Mr. Fiero will tell you):

_____ and _____

5. Did you trade with either of these two originally infected students and if so who?

_____ and _____

6. How many students were infected (Mr. Fiero will tell you)? _____

7. How was your chance of being infected related to the number of trades that you made?

8. Did you hesitate to trade with someone if you suspected they had many partners before you?

9. Suppose instead of only four exchanges/trades, you were allowed to make all the contracts you wanted. What would the result have been? _____

10. What are the ways people transmit disease? _____

