VIRUS SIMULATION

Directions

You and your classmates are going to use liquid to simulate the spread of a virus. Each student will receive a small cup of liquid and six small, empty cups. Everyone except one person will receive water as the liquid. The person who does not receive water will receive a small cup of water mixed with cornstarch. This mixture represents the infected fluid. No one will know who has the "virus."

During the simulation, you will exchange liquids with six of your classmates. Start by choosing one person as your exchange partner. Carefully pour a little bit of your liquid and your exchange partner's liquid into an empty cup and set it aside. Your exchange partner should do the same. Repeat this process with five other people.

After you have completed all of your exchanges, place a drop of iodine into each of your six cups. Record the results below. If your liquid turned purple, record it as "infected". If it did not turn dark purple, record it as "not infected." Then, your group should record your results on the board or other area as instructed by your teacher.

Results

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Graph

Make a bar graph of the class results. Be sure to give your graph a title and label the x and y axes.

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What's Going On?

Iodine is used to test for the presence of starch. If starch is present, the iodine turns the liquid into a dark purple color. So, if your liquid turned dark purple after adding iodine, it has starch in it.

Analysis

1. What percentage of the class became infected with the virus? What percentage did not become infected?

2. Are you surprised by the results? Why or why not?

3. Explain the significance of the cornstarch mixture and the iodine.

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4. What does this simulation tell you about the spread of viruses?

5. Can you determine who had the initial viral infection? Why or why not?