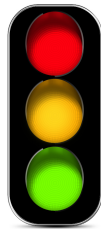


IMMUNE TASK



Amazing Race Immune Task: Epidemic Transmission Simulation

Background: A disease is spreading through your community at an alarming rate. This disease is transmitted through the exchange of bodily fluids. In your immediate population, there are already TWO infected individuals. Today you will see how quickly a disease can spread.

Hypothesis: How many people do you predict will be infected by the end of the activity, if each member of the class has contact with three other classmates? _____

Procedure:

1. You will receive a cup containing a clear liquid which represents your own bodily fluids.
2. You will come in contact with another person in the group.
3. Go through a “rock paper scissors” type of interaction with showing 1, 2 or 3 fingers.
 - a. If the total number of fingers is even, it is a casual interaction. Move on and continue until you meet up with three people and have odd totals.
 - b. If the total number of fingers is odd, it is an interaction where fluids are exchanged.
4. If fluids are exchanged, then you need to pour one person’s contents into the other person’s cup. Then pour half back into the original cup. Move on until you have a total of 3 “odd numbered” interactions.
5. After three exchanges have been made for each person, everyone in the class will be tested to see if they were infected. *Remember, only two people were originally infected.*
6. Fill out the data and construct a **bar graph** with the class results.

Data:

Your Name	Contact #1	Contact #2	Contact #3

Summary of Class Results:

Beginning

of people in class=

infected= 2

% infected=

% not infected=

$\% = (\# \text{ infected}) / (\# \text{ of people in class})$

End

of people in class=

infected=

% infected=

% not infected=

Analysis and Conclusions:

1. a) Were you infected at the beginning? _____ at the end? _____
2. What percentage of the class was infected at the beginning? _____ at the end?

3. How many people in your own personal contact circle were infected at the end?

4. Become an epidemiologist and trace the exchange of fluids back to the original two people.
5. Why is it important to find the source or cause of a disease?
6. How do you suggest that real bodily fluids and medical waste be disposed?
7. Reflection: How did you feel when you received your hypothetical test results?
Answer in a short paragraph, using complete sentences.