Name_____ Period _____ Date _____

Funky Food STEM Sims

Lesson 2: Comparing RI

The households in the town are very wary of getting food poisoning. Calculating the relative risk of infection for each restaurant is important for others who have eaten there. A large risk of infection will worry the people that have eaten at the restaurant, but a small risk of infection will be a relief for others. Help the curious households to find how likely they are to get sick.

Doing the Science

1. Start the Funky Food Simulation by clicking on the "Sim" tab.
2. Read the instructions provided on the screen.
3. Click on any orange dot, which represents a household.
4. The household will display what restaurant they ate at and if they got infected or not. According to the information provided, click on the restaurant name under the "Infected" or "Not Infected" boxes to add the household into the count.
5. If you make a mistake, click on the Undo button (the curved arrow).
6. Repeat steps 3 - 4 for all the houses in the town.
7. Click on the "Analyze" button.
8. Beside "Hypothesis: Exposure to" use the drop down menu to hypothesize the cause of the infection by clicking on the restaurant name.
9. Using your hypothesis, fill out the table. If you need help, click on the question marks beside the text boxes.
10. You can always return to the previous screen using the "Back" button to look at the counts for the homes that were infected and those that weren't. Click on "Analyze" to return to the hypothesis screen and continue filling out the table.
11. Click on "Calculate R.I." to find the relative risk of infection.
12. Click on "Help with R.I." to view the equations of how the Relative R.I. is calculated.
13. Click on "Interpret R.I." to analyze the results of the R.I calculated.
14. Record the relative risk of infection into Table 1 below.
15. Repeat steps 7 - 11 for the different restaurants as the hypothesis.

Table 1.

	Brutal Burgers	Sketchy Salads	Trashy Tacos	Wretched Wraps
Relative Risk of Infection				

Do You Understand?

1. Usually, a source will be a lot harder to locate with hundreds of potential contamination sites. Some people might get infected, while others who eat the same food will be fine, making the location of the site more difficult to find. If this were the case, how would you narrow down which restaurants were the cause of the food poisoning?