

Bacteria

STEM Sims

Lesson 2: Which Meat Contains the Most Dangerous Bacteria?

Bacteria can be present in and on chicken, beef, and fish. But which meat contains the most dangerous bacteria? Conduct a simple study to find out this kitchen’s answer.

Doing the Science

1. Start the Bacteria Simulation by clicking on the “Sim” tab.
2. Move the mouse to the counter near the refrigerator.
3. When the words “Ground Beef” appear, click the mouse. The button in the “Sample Collected” area should turn red.
4. Move the mouse to the microscope and click on the scope.
5. View the sample by clicking on “Single,” “Multiple,” “Flagellated,” and “With Gram Stain.”
6. Sketch what you see in the microscope in the appropriate space in Table 1 below.
7. Select the “Back” button at the bottom right of the screen.
8. Click on the red “Clear” button in the “Sample Collected” area.
9. Move the mouse on the counter to the right of the kitchen sink.
10. When the word “Poultry” appears, click the mouse. The button in the “Sample Collected” area should turn red.
11. Repeat steps 4 – 6, then repeat the collection process for the fish sample on the table.
12. Use the “Bacteria Database” in the Background section of the site to identify the bacteria type (if present) in the three different types of meat.

Table 1.

Sample	Single	Multiple	Flagellated	Gram Stain	Bacteria Type
Ground Beef					
Poultry					
Fish					

Do You Understand?

1. Which meat contained the most dangerous type of bacteria?