

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

## Lesson 12: How did the bacteria population become more resistant in every system?

**Conclusions** Let's build our Gotta Have It Checklist from comparing across each system: Addie, our Petri Dish experiments and NetLogo. What key components and interactions did you class decide needed to be part of a Gotta Have It Checklist for a general model? Since we are looking for a generalized pattern, let's be sure to substitute specific words associated with this case, to the more generalized word that we would apply to explain another event where populations might be changing over time. Underline the components of the model when you write key components and interactions.

Questions from System Comparisons Chart	Key Components and Interactions (Look across the three systems from Lesson 9 and pull out the general component and interaction)
<p><b>1. Are there different kinds of bacteria?</b></p>	<p>A.</p>
<p><b>2. Are there different varieties of bacteria within the same kind? What makes a certain variety become a certain variety?</b></p>	
<p><b>3. Did the bacteria move into or out of different environments (different systems)?</b></p>	<p>B.</p>
<p><b>4. What was the stable environment like before antibiotics were added? What's your evidence?</b></p>	



<p><b>5. How were antibiotics added to the environment? Are the antibiotics and the bacteria interacting? What's your evidence?</b></p>	<p>C.</p>
<p><b>6. Were some of the bacteria dying? What's your evidence?</b></p>	
<p><b>7. How are bacteria reproducing? What evidence do we have of resources (such as food or space) affecting the populations of bacteria? What's your evidence?</b></p>	<p>D.</p>

**What was the result of these interactions?:**

E.

