

Name _____

**Amoeba Sisters – “Natural Selection and the Bacterial Resistance”
(link #1 on class website)**

1. What is one trait that the frogs of the same species have in common?
2. How do biologists define fitness?
3. Natural selection is a _____ of evolution.
4. Describe how bacteria evolve to become resistant to antibiotics.
5. Name one example of a type of bacteria that has evolved to become very resistant to antibiotics.
6. Why should you ONLY take antibiotics when you are sure you need them?
7. In your own words, what is Natural Selection?

Peppered Moth Simulation (link #2 on class website)

Click on the picture of the factory. Read and answer these questions.

1. What change happened to the environment during the industrial revolution in England?
2. What changes have been observed in the moth population in England since 1848?

Open the simulation and play the role of the bird in both the dark and the light forest. Try to behave as a bird would behave, choosing the moths that are the most obvious. At the end of each simulation, record the percent of moths captured in the table on the next page.

	Percent Dark Moths	Percent Light Moths
Light Forest		
Dark Forest		

Final Analysis

3. Explain how the color of the moths increases or decreases their chances of survival.
4. Explain the concept of "natural selection" using your moths as an example.
5. What would happen if there were no predators in the forest? Would the colors of the moths change over time? Defend your answer?

Click on Survival Game (link #3 on class website). Play the game a few times, at least until you win.

1. Explain what happened in the game. What did you have to do to survive?
2. Try the natural selection quiz. What was your score?