

Name: _____ **Class:** _____ **Date:** _____

Battling bacterial evolution: The work of Carl Bergstrom
http://evolution.berkeley.edu/evolibrary/article/0_0_0/bergstrom_01

Go to the website listed above and answer the following questions.

1. What are the four basic characteristics that result in natural selection? Explain how bacteria encountering an antibiotic exhibit each of these characteristics.
2. How much money is spent in the US economy each year fighting antibiotic resistant infections? What other costs are associated with such infections?
3. How was "cycling" supposed to slow the evolution of antibiotic resistant bacteria?
4. What situation did Carl build a model of? What did that model predict? How did he test his model?
5. Describe one situation in which you could use an experiment to test a hypothesis about evolution.
6. What are some of the benefits of using a computer model to test an idea instead of an experiment?