**Antibiotics and resistance video guide questions**  *Name* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. \_\_\_\_\_ Which of the following is not a method by which antibiotics attempt to kill bacteria?
   1. Crippling the cell wall
   2. Forming a membrane around the cell
   3. Interfering with protein information
   4. Blocking DNA and RNA synthesis
2. \_\_\_\_\_ How do antibiotic-rich environments like hospitals speed up the rate at which superbugs increase their percentage of the bacteria population?
   1. Increase the rate of mutations in bacteria
   2. Increase the size of the bacteria
   3. Increase the bacteria’s rate of reproduction
   4. Increase selective pressures leaving mainly resistant bacteria alive
3. \_\_\_\_\_ Antibiotic resistance is a result of \_\_\_.
   1. Bacteria being really strong
   2. Natural selection
   3. Antibiotic being really weak
   4. Genetic mutations
4. **Explain** what antibiotic resistance is and how it can proliferate.
5. **Explain** why antibiotics cannot be used against infections caused by a virus.

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1. Most of our antibiotics are found in nature. As we continue to cut down rainforests and destroy nature, **state** what problems this can potentially cause.
2. **State** what antibiotics are.

1. **Explain** how the antibiotic penicillin works to destroy bacteria.
2. Not all bacteria are antibiotic resistant. **State** how some of those non-resistant bacteria might become antibiotic resistant.
3. More and more bacteria are becoming antibiotic resistant. **Explain** how this might affect our ability to fight certain infectious diseases in the future.
4. **Explain** what is happening in the diagram below and **state** what this is an example of.

