

Name _____ Mirrer Yeshiva HS May 6, 2020 Rabbi Bresler
Class _____ Biology Remote Learning Chapter 19-2 Bacteria and Viruses

This assignment is due Sunday Night May 10, 2020

First read pages 477-481

Page 477

1. In your own words write a sentence or two describing the general topic of this chapter _

Page 477

2. Bring an example of the truth to the following statement: "Without bacteria, life as we know it would be impossible" _____

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3. Explain how bacteria cause the consumption of beans to be a good form of obtaining protein. _____

4. Explain how the nitrogen fixation can be an example of mutualism. (2 different organisms benefit each other.) Note: Read 2nd paragraph carefully.

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5. Describe the two ways that pathogens cause disease and give an example for each.

a. _____ Example: _____

b. _____

_____ Example: _____

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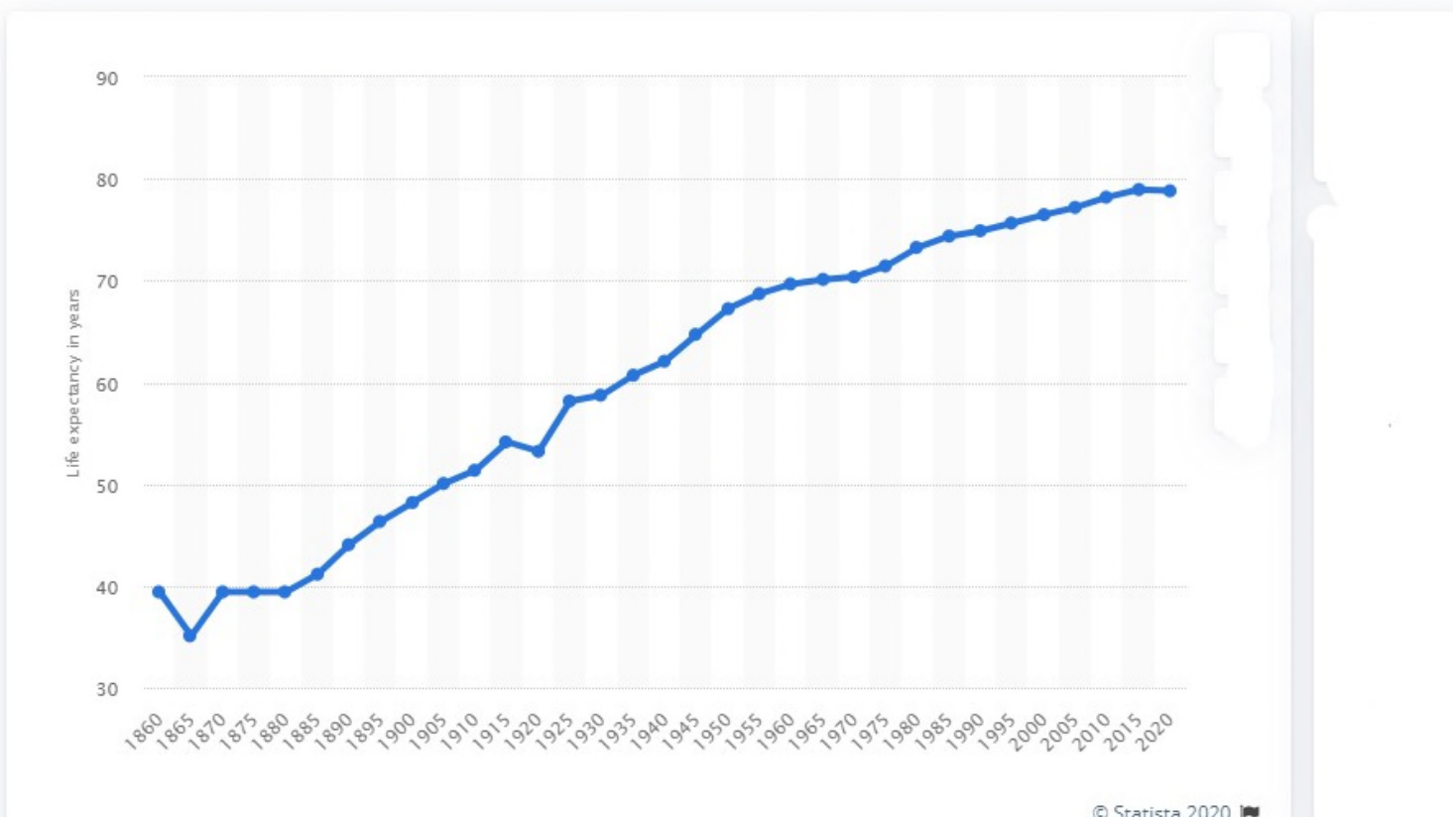
6. What are the main ways to prevent and heal bacterial infections? _____

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7. Based on figure 19-10, what is the single most important measure that people can do to prevent bacterial diseases? _____

8. What single most factor can explain the data on the graph below?

Life expectancy (from birth) in the United States, from 1860 to 2020



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9. How do antibiotics control bacteria? _____

10. List four beneficial ways that people use bacteria.

a. _____

b. _____

c. _____

d. _____

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11. How can you prove that bacteria are the source for almost all food spoilage? _____

12. Why does refrigeration and freezing keep food staying fresh for longer? _____

13. If pathological bacteria are found, what are the two methods that can be done to kill them? _____

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14. Note to students: the answer to the following question is not stated directly in your book, but I am asking you to think of a logical explanation.

Taken from your book page 476:

When growth conditions become unfavorable, many bacteria form structures called spores. One type of spore, called an **endospore**, is formed when a bacterium produces a thick internal wall that encloses its DNA and a portion of its cytoplasm. The endospore can remain dormant for months or even centuries, until more favorable growth conditions arise. The ability to form spores makes it possible for some bacteria to survive harsh conditions—such as extreme heat, dryness, or lack of nutrients—that might otherwise kill them.

Why would sterilization help to destroy bacteria, perhaps the bacteria are of these type that are almost impossible to destroy? _____
