

Name _____ Mirrer Yeshiva HS May 13, 2020 Rabbi Bresler
Class _____ Biology Remote Learning Chapter 19-3 Bacteria and Viruses

This assignment is due Sunday Night May 17, 2020

First read pages 482-487

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

(do not write one sentence describing just one part) _____

2. Taken from Wikipedia:

Not to be confused with computer worm or Trojan horse (computing)

computer virus is a type of computer program that, when executed, replicates itself by modifying other computer programs and inserting its own code.^[1] When this replication succeeds, the affected areas are then said to be "infected" with a computer virus.

Virus writers use *social engineering* deceptions and exploit detailed knowledge of security vulnerabilities to initially infect systems and to spread the virus. The vast majority of viruses target systems running Microsoft Windows, employing a variety of mechanisms to infect new hosts, and often using complex anti-detection/stealth strategies to evade antivirus software. Motives for creating viruses can include seeking profit (e.g., with ransomware), desire to send a political message, personal amusement, to demonstrate that a vulnerability exists in software, for sabotage and denial of service, or simply because they wish to explore cybersecurity issues, artificial life and evolutionary algorithms.

Based on your knowledge of this chapter please explain why this particular type of computer program is called a "virus" and not some other term, bacterium perhaps.

Page 482

3. What is the source of the word "virus"? _____

Mirrer Yeshiva HS Wednesday May 13, 2020 Rabbi Bresler
Biology Remote Learning Chapter 19-3 Bacteria and Viruses

4. After reading the first 4 paragraphs on page 482, what is the obvious difference between a bacterium and a virus? _____
- _____

Page 483

5. Describe the parts and structure (how it is constructed) of a virus. _____
- _____
- _____
- _____

Page 484-5

6. Name the two ways that viruses cause infection and **describe** each one.
Note: **This part should be read at least three times - it takes study. This is the key to understanding what viruses do.**

a. Infection type one _____ Description _____

b. Infection type two _____ Description _____

Mirrerr Yeshiva HS Wednesday May 13, 2020 Rabbi Bresler
Biology Remote Learning Chapter 19-3 Bacteria and Viruses

Page 486

7. List 8 diseases caused by a virus.

a. _____

e. _____

b. _____

f. _____

c. _____

g. _____

d. _____

h. Coronavirus _____

8. What practice can prevent a virus infection, and how does it work? _____

9. From the previous answer it is apparent that only one thing can defeat (not prevent) a viral infection. It is not medicine. What is it? _____

Cancer is a disease caused when cells divide uncontrollably and spread into surrounding tissues. Cancer is caused by changes to DNA. Most cancer-causing DNA changes occur in sections of DNA called genes. These changes are also called genetic changes. www.cancer.gov

10. Please explain how a virus can cause cancer. _____

Page 487

11. Explain why viruses are not considered living things. _____

