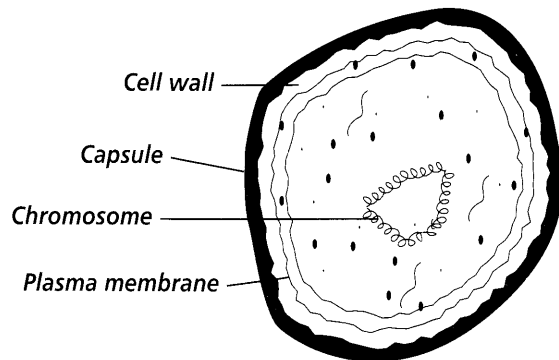


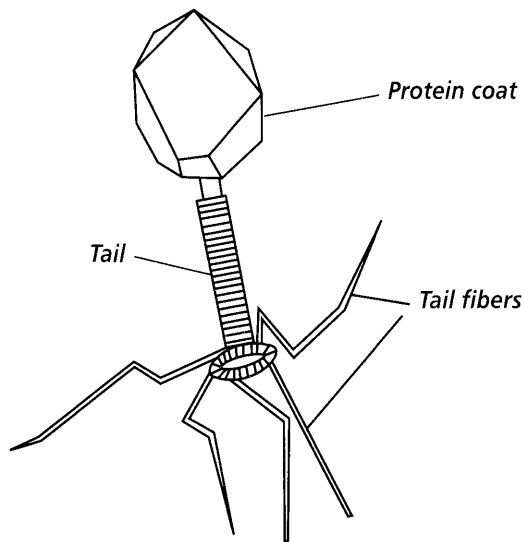
Chapter

18 Viruses and Bacteria**Content Mastery****Get the Big Picture**

Study the pictures. Then write **B** after each sentence below that describes bacteria. Write **V** after each sentence that describes viruses.



Bacteria are the oldest form of life on Earth. Bacteria grow, reproduce, and carry out respiration. They are used to make yogurt, cheese, and some other foods. Bacteria can cause diseases, such as tuberculosis and strep throat.



Viruses are much smaller than bacteria. Most biologists agree that viruses are not alive. Viruses do not move, grow, or carry out respiration. Viruses need living host cells to reproduce. Viruses can cause diseases, such as the flu or chicken pox.

1. They cause chicken pox. _____
2. They can grow, reproduce, and carry out respiration. _____
3. They are the oldest life form on Earth. _____
4. Most biologists agree they are not alive. _____
5. They cause strep throat. _____
6. They do not move, grow, or carry out respiration. _____
7. They need a living host to reproduce. _____
8. They are used to make some foods. _____

Chapter

18

Viruses and Bacteria, *continued*

Content Mastery

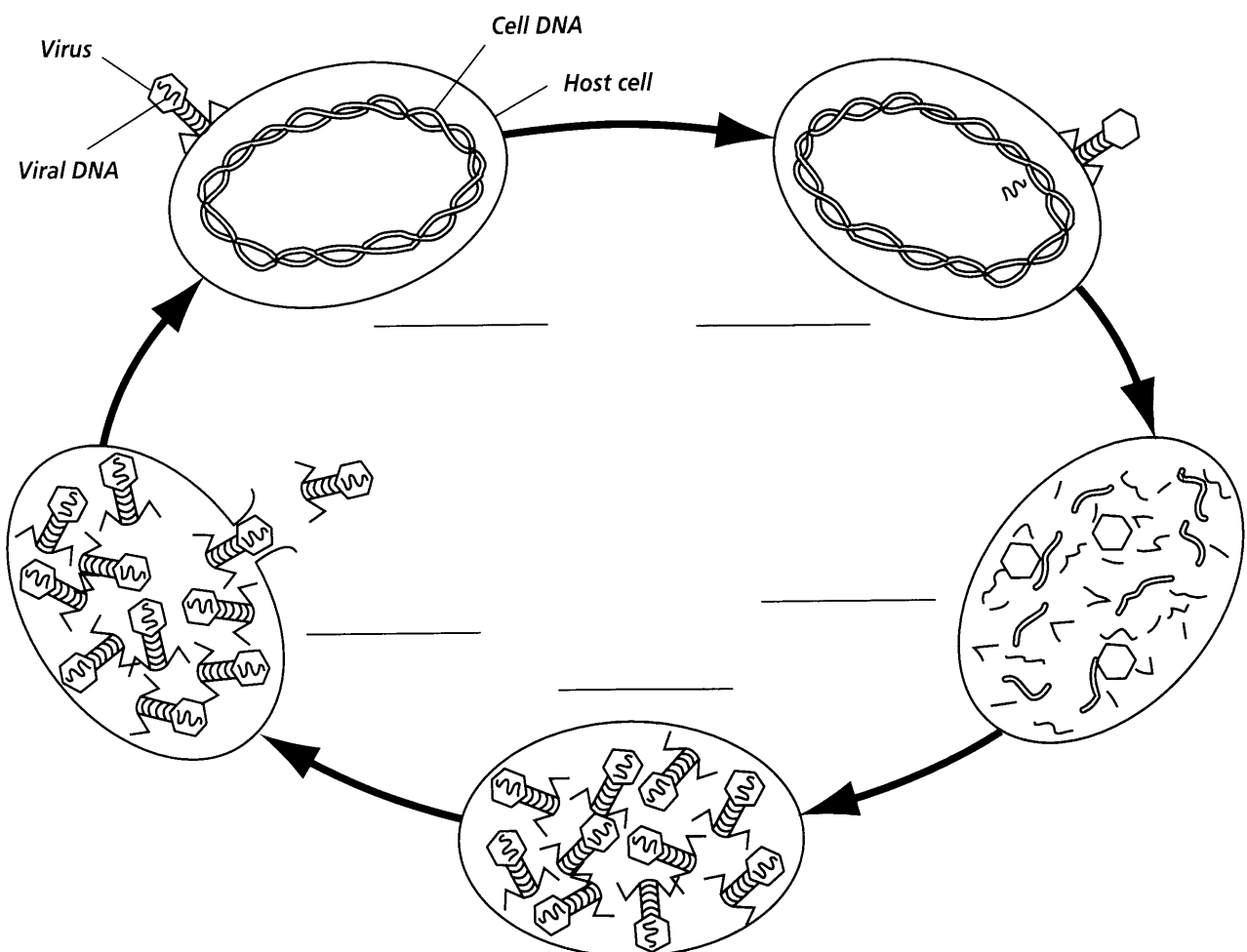
Section 18.1 Viruses

Study the Cycle

Viruses use a host cell to make new viruses, then destroy the cell. This process is called the **lytic cycle**. Here are the steps of the lytic cycle.

1. The virus attaches to the cell.
2. DNA from the virus enters the cell.
3. The cell makes new viral DNA and proteins.
4. New viruses are assembled from the proteins and DNA.
5. The cell breaks open and the viruses are released.

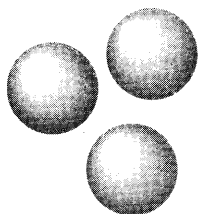
The steps of the lytic cycle are shown in the diagram below. Use the list above to number the steps.



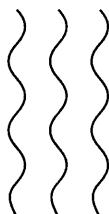
Section 18.2 Archaeobacteria
and Eubacteria

Study the Shapes

Bacteria are the smallest and simplest living things. They come in three basic shapes: spheres, rods, and spirals. The figures below show the three shapes. Write the name of the shape below each figure.



1. _____

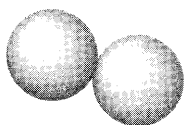


2. _____

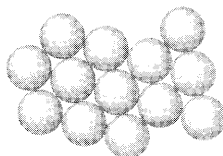


3. _____

Bacteria usually live in groups. The names of bacteria often tell how the bacteria are grouped. If the name starts with *Diplo-*, the bacteria live in pairs. If the name starts with *Staphylo-*, they live in clusters like grapes. If the name starts with *Strepto-*, they live in chains. The figures below show these three groups. Write the prefix of the name of the bacteria below each figure.



4. _____



5. _____



6. _____

Chapter

18

Viruses and Bacteria, *continued*

Content Mastery

Review the Vocabulary

Use the Chapter 18 vocabulary words in the box to fill in the puzzle.

virus (VI rus)
provirus

bacteriophage (bak TEER ee yuh fayj)
toxin

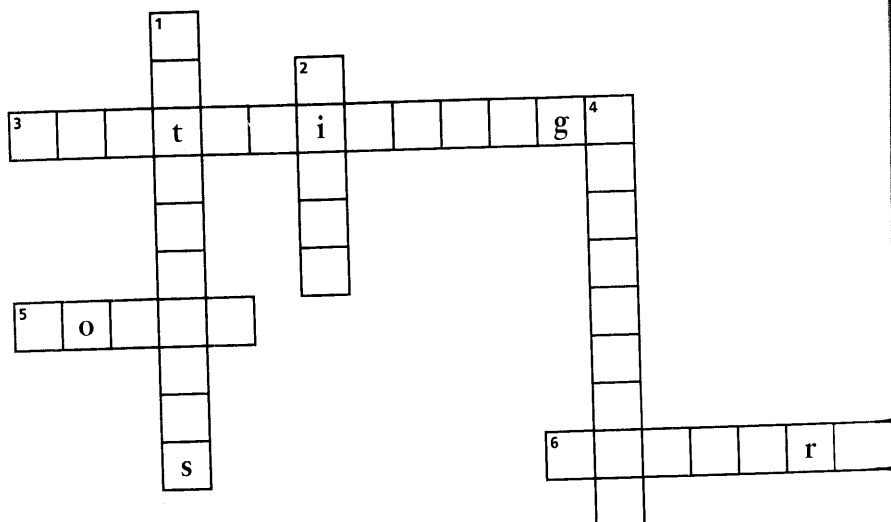
retrovirus
endospore

Across

3. virus that infects only bacteria
5. poison produced by some bacteria
6. virus whose DNA has been inserted into the host cell's chromosome

Down

1. virus that has RNA
2. tiny, nonliving particle
4. bacterium with a tough outer covering



Look at each vocabulary word in the box below. If the word is related to bacteria, write it in the table under *Bacteria*. If the word is related to viruses, write it in the table under *Viruses*.

lytic cycle (LI tihk)

lysogenic cycle
(li suh JEN ihk)

capsid

reverse transcriptase

obligate aerobe

binary fission

conjugation

obligate anaerobe

nitrogen fixation

Bacteria	Viruses