Name_____ Class_____ Date_____

## Section 19–2 Viruses (pages 478–483)

**TEKS FOCUS:** 3F Contributions of scientists in biology; 4C Compare viruses to cells

*This section describes the structure of a virus. It also explains how viruses cause infection.*

### What Is a Virus? (pages 478–479)

**1.** What are viruses? _____

_____

**2.** What do all viruses have in common? _____

_____

_____

**3.** Is the following sentence true or false? Most viruses are so small that they can be seen only with the aid of a powerful electron microscope. _____

**4.** What is the structure of a typical virus? _____

_____

**5.** Circle the letter of what a virus's protein coat is called.

**a.** capsid **b.** envelope **c.** head **d.** lysis

**6.** How does a typical virus get inside a cell? _____

_____

_____

**7.** What occurs when viruses get inside of cells? _____

_____

_____

_____

_____

**8.** Why are most viruses highly specific to the cells they infect? _____

_____

_____

**9.** What are bacteriophages? _____

### Viral Infection (pages 480–481)

**10.** Why is a lytic infection given that name? _____

_____

**11.** Circle the letter of each sentence that is true about a lysogenic infection.

**a.** The virus lyses the host cell immediately.

**b.** The virus embeds its DNA into the host's DNA.

**c.** The virus's DNA is replicated along with the host cell's DNA.

**d.** A host cell makes copies of the virus indefinitely.

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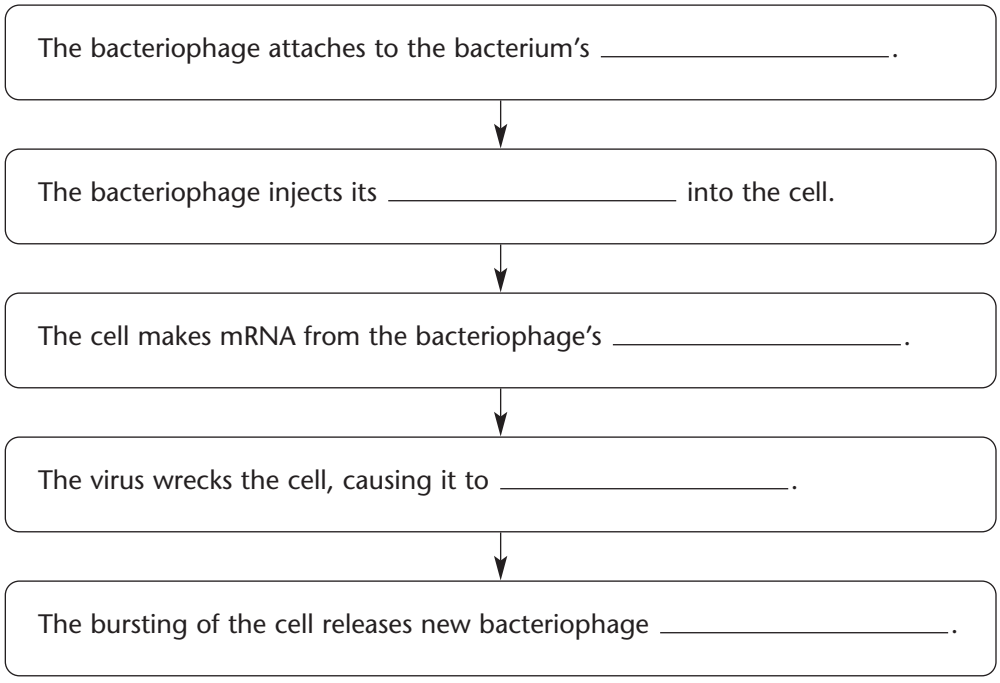
**12.** Complete the flowchart about a lytic infection.




**13.** What is a prophage? _____

_____

## Retroviruses (page 482)

**14.** What are retroviruses? _____

_____

**15.** What happens when retroviruses infect a cell? _____

_____

_____

## Viruses and Living Cells (pages 482–483)

**16.** Circle the letter of each reason why some biologists do not consider viruses to be alive.

**a.** They can't infect living cells.

**b.** They can't evolve.

**c.** They can't regulate gene expression.

**d.** They can't reproduce independently.