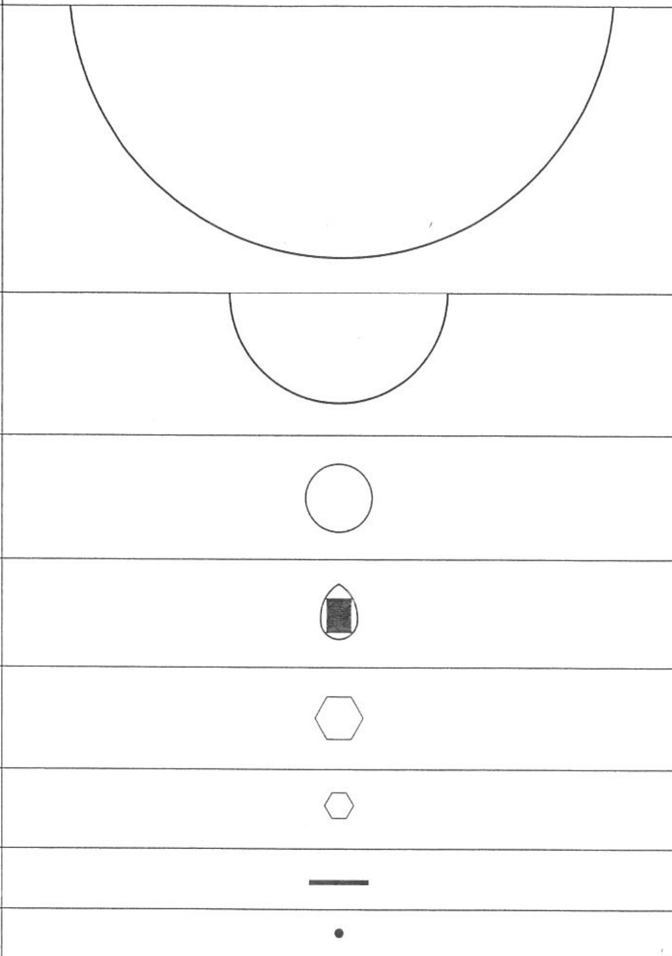
SECTION 3 Enrichment

The Size of Viruses

Directions: *Study the following diagram. It shows the sizes of viruses, bacteria, and blood cells. The largest is a red blood cell. Then answer the questions that follow.*

Cells	Largest diameter in (micrometers)	
Red blood cells	7500	
Bacteria *Streptococcus*	750	
Herpes simplex virus	130	
Rabies virus	125	
Flu virus	85	
Polio virus	27	
Virus that affects plants	15	
Red blood cell molecule	15	



1. How large is the smallest virus on the diagram that affects plants? ______
2. What is the smallest thing shown on the diagram? ______
3. The smallest virus on the diagram attacks what kinds of organisms? ______
4. How do the rabies virus and the polio virus compare in size? ______
5. How large is the *Streptococcus* bacteria? ______

   Red blood cell molecules? ______
6. Generalizing from this diagram, infer which are larger, viruses or bacteria ______

Name ______________________ Date ______________ Class ______________

SECTION 3 Reinforcement

Viruses

1. Listed below are the steps by which an active virus copies itself and destroys a cell. Number the steps in the correct order in the blanks provided at the left.

_______ a. The cell bursts open and hundreds of new virus particles are released. These new virus particles go on to infect other cells.

_______ b. A specific virus attaches to the surface of a specific host cell.

_______ c. The viral hereditary material takes control of the host cell and the cell begins to make new virus particles.

_______ d. The hereditary material of the virus entering the host cell.

Directions: *Answer the following questions using complete sentences.*

2. Explain what a latent virus does when it enters a cell.

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3. Discuss several ways to prevent viral infections.

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4. What are vaccines made from?

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5. How does gene therapy work?

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Meeting Individual Needs