

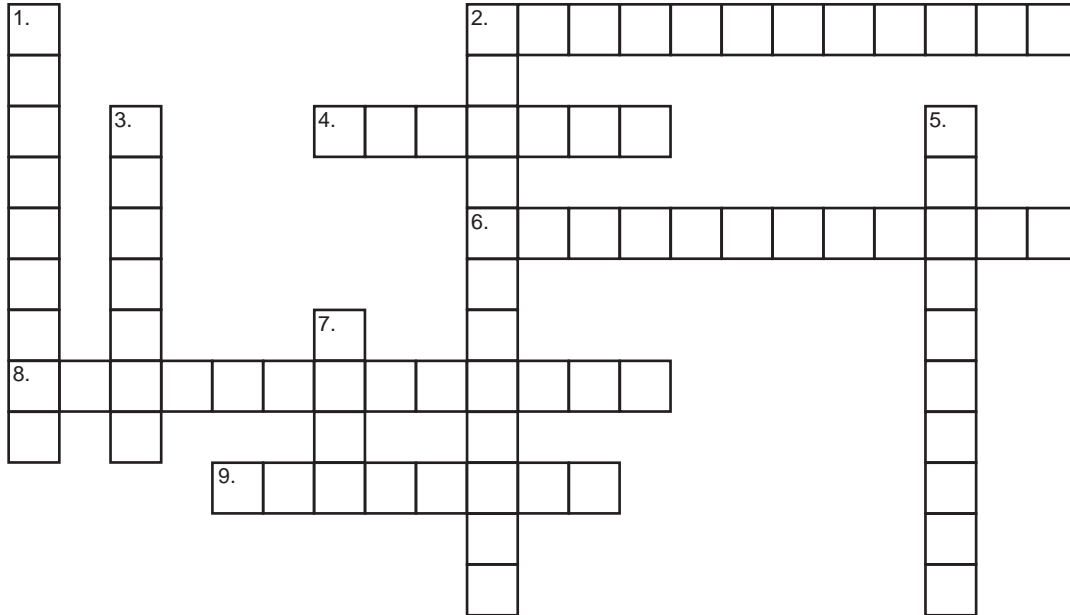
CHAPTER REVIEW

Chapter 17

Basic Units of Life

I. Vocabulary Review

Solve the following crossword puzzle by using the clues provided.



Across

- 2. structures in plant cells that contain chlorophyll
- 4. command center of cell
- 6. provide the cell with energy
- 8. guide chromosomes during mitosis
- 9. gives plant cells their shape

Down

- 1. gel-like material inside cell
- 2. regulates what goes in and out of cell
- 3. cell reproduction
- 5. made up of DNA and protein
- 7. basic unit of life

II. Concept Review

In the blank at the left, write the letter of the choice that best completes the statement or answers the question.

- _____ 11. If something is living, it must have _____.
 a. cells b. structure c. order d. all of the above
- _____ 12. If you are looking at a slide of an unknown material and you see material moving within small, ordered units, you are probably viewing _____.
 a. salt crystals b. cells c. dead wood d. dirt
- _____ 13. You are looking at two cells that came from two different places. They are similar in size and shape. What is a logical conclusion?
 a. The cells are unrelated.
 b. The cells do totally different things.
 c. The cells must be from the exact same individual.
 d. The cells do similar jobs.

Chapter Review 17 (continued)

- _____ **14.** Which part of your body has the most cell reproduction?
a. your liver **b.** your skin **c.** your heart **d.** your brain

Answer the following using complete sentences.

- 15.** Even though adults are no longer growing, would you expect to find dividing cells? Where?

- 16.** What parts of cells are found in plant cells but not animal cells, and what are their functions?

- 17.** Why are elephant cells not any larger than frog cells? _____

III. Skills/Process Review

In the blank at the left, write the letter of the choice that best completes the statement or answers the question.

- _____ **18.** If the eyepiece of your microscope is 10X and you are viewing a drop of pond water under the 43X objective, the organisms you see are magnified _____ times.
a. 143 **b.** 430 **c.** 1430 **d.** 4300
- _____ **19.** What do you need to do before you observe an onion cell's nucleus?
a. Peel off a thin layer from the onion. **c.** Prepare a wet mount.
b. Stain the cell with iodine. **d.** All of the above.

- 20.** Complete the following table.

Seedling	Original root length (mm)	Final root length (mm)	Growth of roots (mm)	Average growth of roots (mm)
1	10	a.	10	f.
2	10	15	b.	
3	10	14	c.	
4	10	d.	7	
5	10	e.	9	

IV. EYV Review

- 21.** What are some possible benefits of genetic engineering? _____
