

Skills Worksheet

Directed Reading B

Section: The Characteristics of Cells (pp. 114–119)

1. The smallest functional and structural unit of all living organisms is

a(n) _____.

CELLS AND THE CELL THEORY

- _____ 2. What did Robert Hooke call the boxes cork seemed to be made of?

a. bark
b. rooms
c. cells
d. cartons

- _____ 3. What part of plant and fungus cells was easy for Hooke to see?

a. cell membranes
b. cell nuclei
c. cell walls
d. cell outlines

- _____ 4. In 1673, Anton van Leeuwenhoek saw single-celled organisms in

a. distilled water.
b. bath water.
c. pond scum.
d. salt water.

5. What kind of cells have cell walls?

6. Today, the single-celled organisms Leeuwenhoek called *animacules*

are called _____.

7. What are the three parts of the cell theory?

CELL SIZE

8. What is the yolk of a chicken egg?

Directed Reading B *continued*

9. Where does a cell take in food and get rid of wastes?

10. What limits the size of a cell?

11. How is the surface area-to-volume ratio of a cell calculated?

PARTS OF A CELL

Match the correct description with the correct term. Write the letter in the space provided.

_____ **12.** a protective layer that covers a cell's surface and acts as a barrier between the cell and its environment

_____ **13.** the fluid and its contents inside a cell

_____ **14.** a small body inside a cell's cytoplasm that performs a specific function in the cell

_____ **15.** the genetic material that carries information needed to make new cells and new organisms

_____ **16.** a membrane-bound organelle in a eukaryotic cell where the cell's DNA is stored

- a.** DNA
- b.** cell membrane
- c.** nucleus
- d.** organelle
- e.** cytoplasm

TWO KINDS OF CELLS

17. What four parts do all cells have?

18. What are the two basic kinds of cells?

Directed Reading B *continued*

19. Single-celled organisms without a nucleus are called

_____.

20. Describe the DNA of a prokaryote.

21. What are ribosomes?

22. How do eukaryotes compare in size to prokaryotes?

23. What does a cell of a eukaryote have to hold DNA that a cell of a prokaryote does not have?

24. An organism made of cells that have a nucleus enclosed by a membrane

is a(n) _____.