Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**READING SUMMARY CHAPTER 3 SECTION 2 (**pages 63, 66, 67)

**Holt Science & Technology Life Science textbook**

**Cell Similarities and Prokaryotic vs. Eukaryotic**

Cell Similarities—Page 63

Choose the cell feature in Column B that best matches the phrase in Column A, and write the corresponding letter in the space provided.

|  |  |
| --- | --- |
| Column A | Column B |
| \_\_\_ 1. barrier between the inside of a cell and its environment  \_\_\_ 2. structures that a cell uses to live, grow, and reproduce  \_\_\_ 3. the fluid in a cell and almost everything in the fluid  \_\_\_ 4. controls all activities of a cell and contains the information  needed for a cell to make new cells | a. cytoplasm  b. cell membrane  c. DNA  d. organelles |

***Two Types of Cells—Page 66-67***

5. Another name for prokaryotic cells is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. Prokaryotic cells are the world’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_cells and they do NOT have a

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. Describe the shape of a prokaryotic cell’s DNA. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Know that---***Organelles*** are structures that enable the cell to live, grow, and reproduce. All cells have organelles, but they don’t all have the same kind.

8. Bacteria cells do not have membrane-covered organelles, but they do have tiny, round organelles called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

9. Most bacteria have a hard \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

10. Most eukaryotic cells are about \_\_\_\_\_\_times larger than prokaryotic cells.

11. Eukaryotic cells have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_and many other membrane-covered organelles.

12. In a eukaryotic cell, the DNA is stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_.

13. The DNA molecules in eukaryotic cells are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in shape.

14. Only some eukaryotic cells have a cell wall, such as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CHAPTER 3 Sect. 3 Eukaryotic Cells:The Inside Story** (pgs. 68, 69, 71, 73, 75)

**Introduction (P. 68)**

15.What two things helped scientists see more details in cells?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Holding It All Together (P. 68)**

16.Which of the following is ***NOT*** a function of the cell membrane?

**a.** It allows nutrients into the cell and lets out waste products.

**b.** It prevents the cell wall from tearing.

**c.** It keeps the cytoplasm inside the cell.

**d.** It interacts with things outside the cell.

**The Cell’s Library (p. 69)**

17.Considering that trees don’t have bones, how do they stand up straight?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18. In a eukaryotic cell, the largest organelle is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

19.The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the dark spot inside the nucleus that stores

materials used to make ribosomes.

20 Why do you think the nucleus is called the cell’s library?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The Cell’s Power Plants (p. 71)**

21.The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from broken-down food molecules is transferred to a

special molecule called ATP.

22. Mitochondria need \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to make ATP.

23.A chloroplast is an energy-converting organelle found in\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and

\_\_\_\_\_\_\_\_\_\_\_\_\_ .

**The Cell’s Storage Centers (p. 73)**

24. Why does wilted lettuce become crispy when it is soaked in water? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Plant or Animal? (p. 75)**

25.If you look at a cell through a microscope, how can you tell whether it is a plant cell or an animal cell?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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