Connection Between Photosynthesis and Respiration

Read the description. Then, draw a line from the dot next to each description to the matching process.

18. Cells take in CO_2 carbon dioxide, and release oxygen ● B

19. Cells use oxygen to break down food and release CO_2 ● A

a. cellular respiration

b. photosynthesis

Fermentation

Circle the letter of the best answer for each question.

20. What do muscle cells use when they can't get oxygen for cellular respiration?

a. fermentation

b. photosynthesis

c. breathing

d. exercise

21. What does fermentation in the muscles produce?

a. fatigue

b. oxygen

c. cellular respiration

d. lactic acid

22. What does yeast form during fermentation?

a. lactic acid

b. carbon dioxide

c. glucose

d. bacteria

Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading B

Section: The Cell Cycle

Circle the letter of the best answer for each question.

1. When your body makes new cells, what is being replaced?
   - **a.** water
   - **b.** energy
   - **c.** cells that have died
   - **d.** heat

2. What does making new cells allow you to do?
   - **a.** grow
   - **b.** sleep
   - **c.** eat
   - **d.** make food

THE LIFE OF A CELL

3. When does the cell cycle begin?
   - **a.** when the cell is formed
   - **b.** when the cell uses energy
   - **c.** when the cell divides
   - **d.** when the cell uses oxygen

4. When does the cell cycle end?
   - **a.** when the cell is formed
   - **b.** when the cell uses energy
   - **c.** when the cell divides
   - **d.** when the cell uses oxygen

5. What is the hereditary material inside a cell called?
   - **a.** nuclei
   - **b.** water
   - **c.** DNA
   - **d.** ATP

6. In what structures can cells' DNA be found?
   - **a.** bacteria
   - **b.** water
   - **c.** fluids
   - **d.** chromosomes

Making More Prokaryotic Cells

Read the words in the box. Read the sentences. Fill in each blank with the word or phrase that best completes the sentence.

more complex	less complex
binary fission	DNA

7. Prokaryotic cells, without nuclei, are Less complex than eukaryotic cells.
8. Eukaryotic cells, with nuclei, are More Complex than prokaryotic cells.
9. Prokaryotic cells such as bacteria divide by Binary Fission.
10. When binary fission is complete, each new cell has identical DNA.

Eukaryotic Cells and Their DNA

Circle the letter of the best answer for each question.

11. How many chromosomes do humans have?
    - **a.** 8
    - **b.** 48
    - **c.** 32
    - **d.** 46
12. What are pairs of similar chromosomes called?
    - **a.** prokaryotic pairs
    - **b.** homologous chromosomes
    - **c.** DNA
    - **d.** eukaryotic pairs

Making More Eukaryotic Cells

Circle the letter of the best answer for each question.

13. How many stages does a eukaryotic cell cycle have?

a. two

b. three

c. four

d. five

14. When chromosomes are copied, what are the two copies called?

a. DNA

b. centromeres

c. chromatids

d. mitosis

15. When the chromosomes separate, what is the process called?

a. mitosis

b. copying

c. parting

d. duplicating

16. What does a cell do in the third stage of the cell cycle?

a. dies

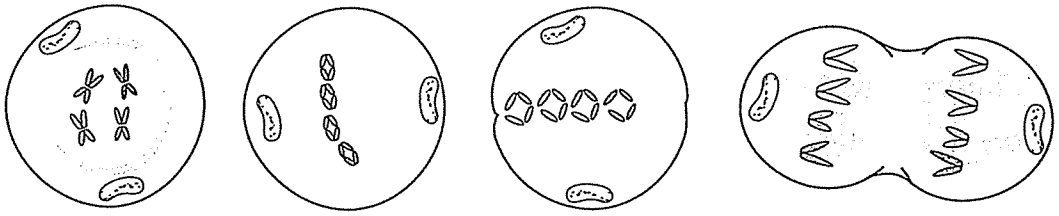
b. divides into two identical cells

c. makes food

d. takes in oxygen

MITOSIS AND THE CELL CYCLE

Use the figure below to answer questions 17 through 20. Circle the letter of the best answer for each question.



Mitosis Phase 1 Mitosis Phase 2 Mitosis Phase 3 Mitosis Phase 4

17. Look at the figure. When does mitosis begin and the chromosomes condense into rodlike structures?

a. Mitosis Phase 1 **c.** Mitosis Phase 3

b. Mitosis Phase 2 **d.** Mitosis Phase 4

18. Look at the figure. When do the chromatids separate and move to opposite sides of the cell?

a. Mitosis Phase 1 **c.** Mitosis Phase 3

b. Mitosis Phase 2 **d.** Mitosis Phase 4

19. Look at the figure. When does a nuclear membrane form around each set of chromosomes, completing mitosis?

a. Mitosis Phase 1 **c.** Mitosis Phase 3

b. Mitosis Phase 2 **d.** Mitosis Phase 4

20. Look at the figure. When do the chromosomes line up, and the homologous chromosomes pair up?

a. Mitosis Phase 1 **c.** Mitosis Phase 3

b. Mitosis Phase 2 **d.** Mitosis Phase 4

Cytokinesis

Circle the letter of the best answer for each question.

21. What is it called when the cytoplasm of a cell divides?

a. mitosis

b. interphase

c. cytokinesis

d. cell plates

22. What does the cell membrane do during cytokinesis in an animal cell?

a. pinches in two

b. forms a cell plate

c. makes copies of its DNA

d. shrivels up

23. What forms between the two new cells during plant cell cytokinesis?

a. cell plate

b. mitochondrion

c. chromatid

d. water