



Name: \_\_\_\_\_  
Date Started: \_\_\_\_\_ Date Completed: \_\_\_\_\_ Score: \_\_\_\_\_

### Learning Activity Sheet Cell Cycle and Mitosis

**I. Directions. Read and understand each question carefully. Write the letter of the correct answer in the space before each number.**

- \_\_\_\_ 1. Which of the following statements about mitosis is TRUE?  
A. Mitosis occurs over one round of nuclear division.  
B. Mitosis produces haploid sex cells.  
C. Crossing-over takes place in mitosis.  
D. Independent assortment during mitosis causes genetic variation.
- \_\_\_\_ 2. In which stage does replication of DNA happen?  
A. mitosis  
B. S phase  
C. G<sub>1</sub> phase  
D. G<sub>2</sub> phase
- \_\_\_\_ 3. Where do chromosomes line along the center of the cell during cell division?  
A. cell plate  
B. equatorial plate  
C. prophase plate  
D. cleavage furrow
- \_\_\_\_ 4. Which of the following cells is most likely not to enter the G<sub>0</sub> phase?  
A. muscle cell  
B. nerve cell  
C. red blood cell  
D. cancer cell
- \_\_\_\_ 5. Which of the following statements about mitosis is TRUE?  
A. Mitosis occurs over one round of nuclear division.  
B. Mitosis produces haploid sex cells.  
C. Crossing-over takes place in mitosis.  
D. Independent assortment during mitosis causes genetic variation.

For numbers 6-10, refer to the following choices. Write the letter of the correct answer in the space provided before each number.

A. interphase    B. mitosis    C. Metaphase    D. S phase    E. Telophase

- \_\_\_\_ 6. results in a diploid number of chromosomes
- \_\_\_\_ 7. also known as the synthesis phase
- \_\_\_\_ 8. stage of the cell cycle consisting of G<sub>1</sub>, S, and G<sub>2</sub> phases
- \_\_\_\_ 9. characterized by the alignment of chromosomes at the equatorial plate
- \_\_\_\_ 10. stage of mitosis where two new nuclei are formed in a cell