

## Cell Cycle, Mitosis & Meiosis Worksheet

1. The following terms refer to specific phases that occur during a cell's life cycle. Place the terms in order as they naturally occur during the life cycle of a cell:
 

a. Interphase: S-phase	e. Metaphase
b. Daughter cell formation	f. Prophase
c. Interphase: G2-phase	g. Telophase
d. Anaphase	h. Interphase: G1-phase

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
  
2. Circle one of the following terms that does not refer to a specific phase of mitosis?
 

a. Anaphase	d. Prophase
b. Interphase	e. Telophase
c. Metaphase	
  
3. Match the prefix or suffix on the left with the closest meaning on the right:
 

a. _____ ana	a. middle
b. _____ inter	b. appearance (period of specific time)
c. _____ meta	c. end (completion)
d. _____ mitos	d. before (first)
e. _____ pro	e. in-between
f. _____ phase	f. thread
g. _____ telo	g. pull apart
  
4. Place the events in order as they would naturally occur during the life cycle of a dividing cell.
  - a. \_\_\_\_\_ Cytokinesis occurs, resulting in new daughter cells.
  - b. \_\_\_\_\_ Daughter chromatids move toward the spindle poles.
  - c. \_\_\_\_\_ Chromosomes condense from the chromatin of the nucleus.
  - d. \_\_\_\_\_ Chromosomes are aligned along the equator of the mitotic spindle.
  - e. \_\_\_\_\_ Resting, DNA replication & protein building between mitotic divisions.
  
5. Why is Interphase not truly a period of rest?
  
6. Describe the events that occur during G1, S & G2 of Interphase.
  
7. Define crossover. During which phase does it occur? What is the benefit of crossover to sexual reproduction?
  
8. Describe 3 ways in which Mitosis and Meiosis differ.
  
9. What is the significance of Meiosis II? Why is it necessary for sexual reproduction?