

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?