

The Cell Cycle

Worksheet

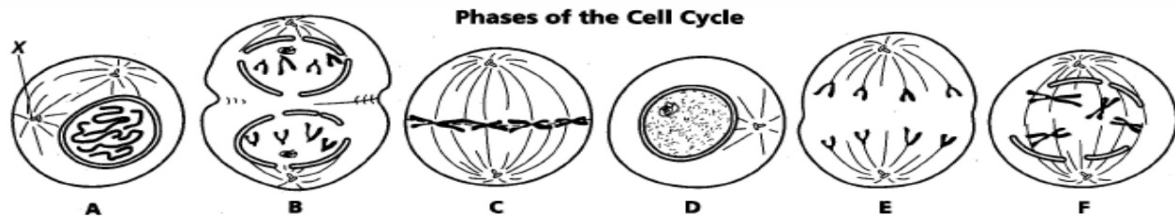
Name KEY
Date _____

Match the term to the description!

Term

- | | |
|---------------|---|
| A. Prophase | E 1. The sister chromatids are moving apart. |
| | B 2. The nucleolus begins to fade from view. |
| B. Interphase | C 3. A new nuclear membrane is forming around the chromosomes. |
| | C 4. The cytoplasm of the cell is being divided. |
| C. Telophase | C 5. The chromosomes become invisible. |
| | D 6. The chromosomes are located at the equator of the cell. |
| D. Metaphase | A 7. The nuclear membrane begins to fade from view. |
| | C 8. The division (cleavage) furrow appears. |
| E. Anaphase | E 9. The chromosomes are moving towards the poles of the cell. |
| | D 10. Chromatids line up along the equator. |
| | A 11. The spindle is formed. |
| | B 12. Chromosomes are not visible. |
| | B 13. Cytokinesis is completed (as next cycle begins). |
| | C 14. The cell plate is completed. |
| | B 15. Chromosomes are replicated. |
| | C 16. The reverse of prophase. |
| | B 17. The organization phase |

The diagram below shows six cells in various phases of the cell cycle. Note the cells are not arranged in the order in which the cell cycle occurs. Use the diagram to answer questions 1-7.



- Cells A & F show an early and a late stage of the same phase of the cell cycle. What phase is it? **prophase**
- Which cell is in metaphase? **C**
- Which cell is in the first phase of M phase (mitosis)? **A**
- In cell A, what structure is labeled X? **centriole**
- List the diagrams in order from first to last in the cell cycle. **D-A-F-C-E-B**
- Are the cells depicted plant or animal cells? **animal**
- What is the longest phase of the cell cycle? **interphase**
- Why is mitosis important? **duplicate number material for 2 daughter cells**
- Predict what would happen if an individual had faulty spindle fibers. **daughter cells would end up with the wrong number of chromosomes**
- Predict what would happen if cytokinesis was skipped. **Cells would have too many chromosomes; cells wouldn't function properly because they would be too big**