Name:_____

Unit 3 Review

Mitosis:

1. In what cells does Mitosis occur in?

Somatic or Body Cells

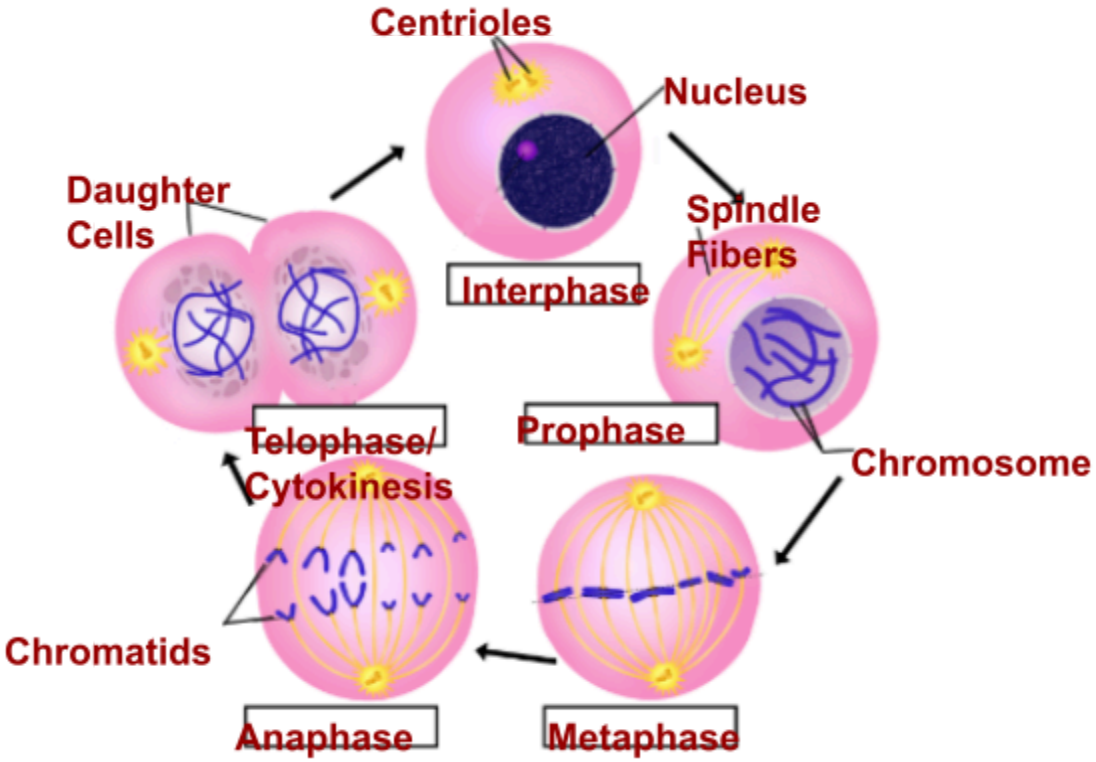
2. Why do cells divide?

For growth or repair of an organism

3. **Step 1:** Indicate the phase of the cell cycle below.

ANAPHASE
TELOPHASE/CYTOKINESIS
PROPHASE
METAPHASE
INTERPHASE

4. **Step 2:** Label individual parts of the cell by dragging the letter to the structure.
A: Spindle B: Chromatid C: Chromosome D: Centrioles E: Daughter cells F: Nucleus

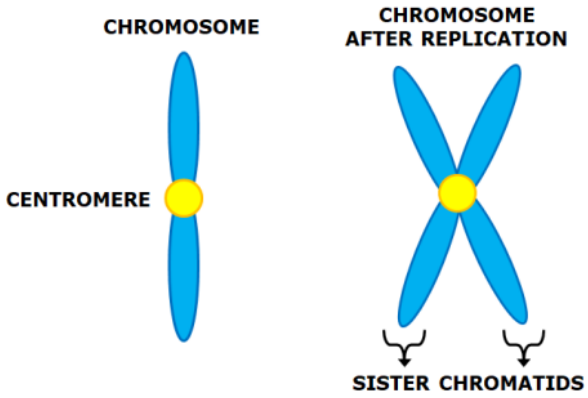


5. During what phase does DNA replication occur?

S phase of Interphase

Name:_____

6. Draw a picture of sister chromatids

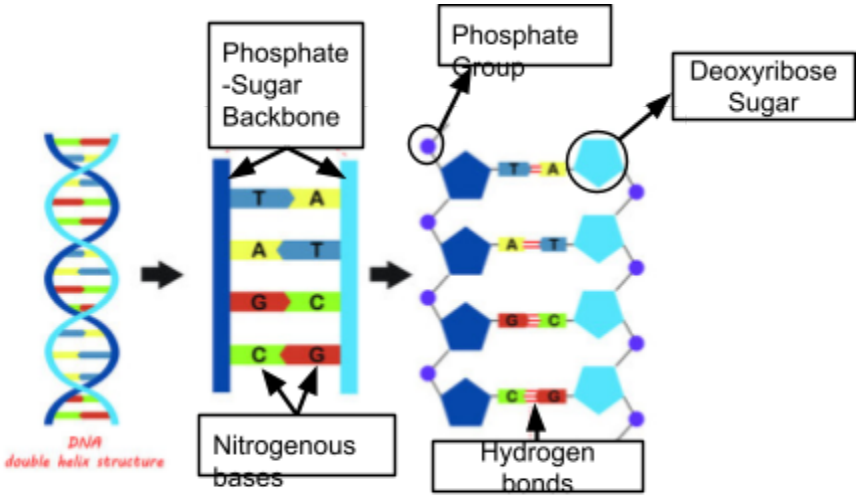


7. What is left at the end of Mitosis?

Two genetically identical daughter cells

DNA Structure

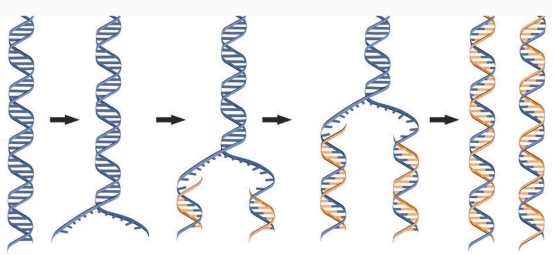
8. Label the different parts of DNA:



DNA Replication

9. Why does DNA need to replicate?

To ensure there are two sets of DNA - one set for each resulting daughter cell of nuclear division



Name:_____

10. What would happen to that cell if DNA did not replicate?

The resulting cells would have half the amount of DNA as they should = cell death. A somatic cell cannot survive with half a set of DNA.

Extra Practice:

11. Identify the phase: *can add in what happens during phase

12. If something went wrong in one of the phases what would happen? ***Multiple answers - depends on what you are saying is the error.**

Answer for 11: In order from left to right: anaphase → metaphase → prophase → telophase → interphase