

## Mitosis

### Directions:

- Click the "Contents" button.
- Open the *Reproductive System File*.
- Click *Animations*.
- Click *Gametogenesis, go to Mitosis*

### The Cell Cycle and Interphase

1. What is a cell cycle? \_\_\_\_\_

2. Identify the two primary parts of the cell cycle. \_\_\_\_\_

3. What's happening during cellular interphase? \_\_\_\_\_

\_\_\_\_\_

4. Describe cellular events during  $G_1$ . \_\_\_\_\_

\_\_\_\_\_

5. Describe S phase activities. \_\_\_\_\_

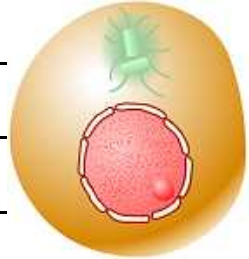
\_\_\_\_\_

6. Describe how DNA replication begins during the S phase.



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\_\_\_\_\_

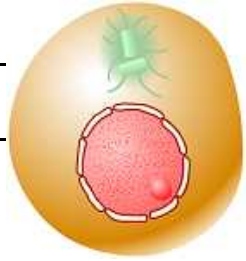


7. Describe how new DNA strand forms and ultimately produce two identical DNA molecules. \_\_\_\_\_

\_\_\_\_\_

8. What happens during the  $G_2$  phase of interphase? \_\_\_\_\_

\_\_\_\_\_



### Mitotic Cell Division

9. What is produced by the mitotic (M) phase of the cell cycle? \_\_\_\_\_

\_\_\_\_\_

10. What is the function of mitotic cell division? \_\_\_\_\_

\_\_\_\_\_

11. Define the two mitotic cell processes. \_\_\_\_\_

\_\_\_\_\_

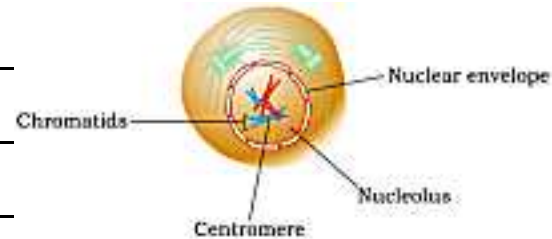
12. What happens to cellular DNA during the four stages of mitosis? \_\_\_\_\_

\_\_\_\_\_

13. Describe events during *prophase*. \_\_\_\_\_

\_\_\_\_\_

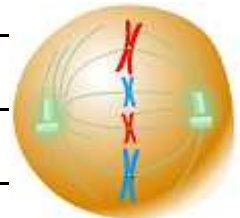
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14. Describe events during *metaphase*. \_\_\_\_\_

\_\_\_\_\_

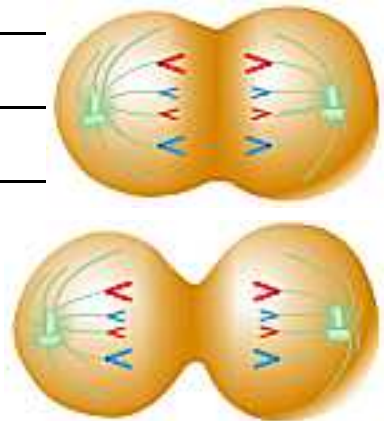
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15. a. Describe events during *anaphase*. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



b. Describe *cytokinesis*. \_\_\_\_\_

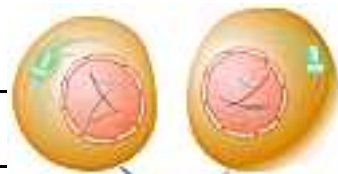
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16. Describe events during *telophase*.

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Daughter cells

Somatic stem cell  
(potential gamete) (2n)



Gametes (n)

