

2.3 The Cell Cycle

Date _____

Last Name _____ First _____ Period ____

1. What is the title of this presentation? _____

2. Watch the video and answer the questions.

- a. What animal does the cell in the video belong to? _____
- b. What are the things that look like worms? _____
- c. How do the chromosomes move? _____
- d. What do you end up with? _____

3. What are the 3 stages of the cell cycle?

- a. _____
- b. _____
- c. _____

4. In **STAGE 1:Interphase**, What three main events occur?

- a. _____
- b. _____
- c. _____

5. Describe **DNA**.

- a. What does DNA stand for _____
- b. Where is it found in the cell? _____
- c. DNA contains the _____ for all the _____ of a cell.

6. When one cell divides into 2 cells, what must it do with its DNA?

- a. When one cell divides into two cells it must first make a _____ of its _____ so that each new cell has a complete copy.
- b. What is the scientific term for a cell copying its DNA? _____

7. What is **STAGE 2** of the cell cycle? _____

- a. What happens to the cells nucleus during mitosis? _____
- b. How are the 2 copies of DNA distributed? _____

8. What are the 4 steps of **MITOSIS**?

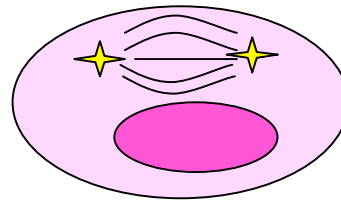
- a. _____
- b. _____
- c. _____
- d. _____

9. Where and from what do **chromosomes** form? _____

- a. Where is **chromatin** found ? _____
- b. What is chromatin? _____
- c. Draw and label a picture of a chromosome.

10. What three events happen during **PROHASE**?

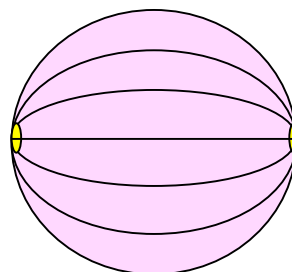
- a. _____ forms _____
- b. _____ _____ form a bridge.
- c. The _____ _____ breaks down
- d. Add 3 chromosomes to the diagram.



11. How do chromosomes line up during **METAPHASE**?

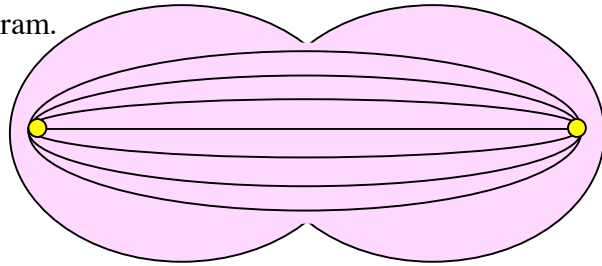
- a. Chromosomes line up _____.
- b. How do the chromosomes attach themselves to the spindle fiber? _____

- c. Add 3 chromosomes to the diagram.



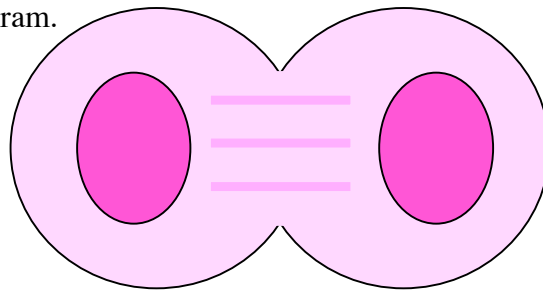
12. Describe the events of **ANAPHASE**.

- a. What happens to whole chromosomes? _____
- b. What is a half of a chromosome? _____
- c. How do the chromatids move? _____
- d. What happens to the shape of the cell? _____
- e. Add 6 **chromatids** to the diagram.



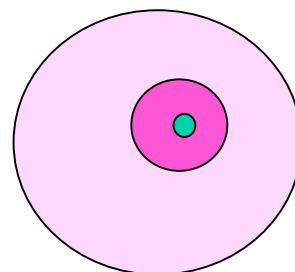
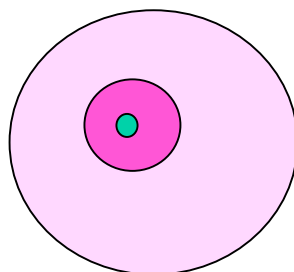
13. Describe the events of **TELOPHASE**

- a. How do the chromosomes change? _____
- b. What forms around the two new regions of chromosomes? _____
- c. What happens to the spindle fibers? _____
- d. Add 6 chromosomes to the diagram.



14. What is **STAGE 3** of the cell cycle? _____

- a. What two things form during **cytokinesis**? _____
- b. How do the chromosomes of the daughter cells compare to the chromosomes of the parent cell?



Recognizing the stages of the Cell Cycle

Last Name _____, First _____ per _____

Your Turn. Identify the phases and stages of cells in the next 10 slides.

15. What 4 phases of mitosis are shown in slide 15?

- a. _____
- b. _____
- c. _____
- d. _____

16. What stage of the cell cycle is the cell in the photo sequence in slide 16 going through?

17. In slide 17 how many onion cells are in the mitosis stage of the cell cycle? _____

18. Which phase of mitosis is the cell shown in slide 18 in? _____

19. Which phase of mitosis are the cells shown in slide 19 in? _____

20. Which phase of mitosis is the cell shown in slide 20 in? _____

21. Which phase of mitosis is the cell shown in slide 21 in? _____

22. Which phase of mitosis is the cell shown in slide 22 in? _____

23. Which phase of mitosis is the cell shown in slide 23 in? _____

24. Which stage of the cell cycle are the cells shown in slide 24 in? _____

25. Which stage of the cell cycle are the cells in slide 25? _____