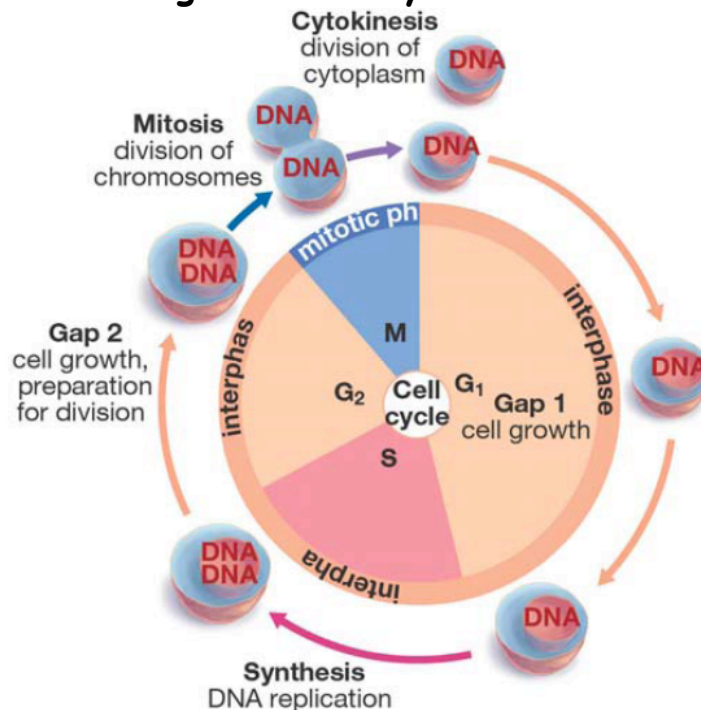


Study Guide for Mitosis Quiz/Test

Know the following:

1. **The relationship between sex cells and body cells** - body cells reproduce by Mitosis, while sex cells reproduce by Meiosis. Body cells contain the complete set of chromosomes, while sex cells have half the set of chromosomes.
2. **Types of body cells** - some types of body cells include skin cells, hair follicles, the lining of the digestive tract, and a newly fertilized egg called a zygote.
3. **Number of chromosomes a human body and sex cell contains**- a human body cell contains 46 chromosomes, while a sex cell contains 23 chromosomes.

4. Stages of cell cycle- in detail-



STAGE 1 - Interphase - In Interphase, the cell prepares to divide by growth and replication of DNA and organelles.

STAGE 2 - Prophase - In Prophase, DNA condenses, the nucleus disappears and spindles form

STAGE 3 - Metaphase - In Metaphase, the chromosomes line up in the middle of the cell.

STAGE 4 - Anaphase - In Anaphase, the sister chromatids separate and move to opposite ends of the cell.

STAGE 5 - Telophase - In Telophase, the chromosomes decondense and the nucleus reappears in both cells. (Cytokinesis) In animal cells, the cytoplasm pinches in and in plant cells a new cell wall is built.

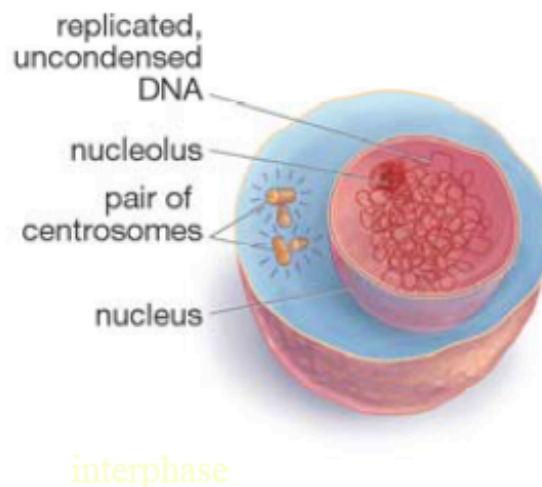
5. The relationship between the number of chromosomes and the complexity of the organism - there is NO relationship at all.

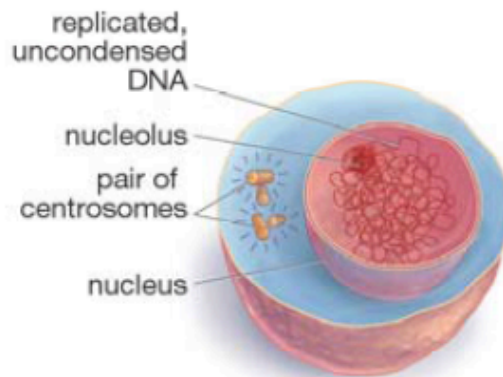
6. Know the vocabulary - see practice tests and vocabulary sheet.

7. Be able to put the stages of mitosis in chronological order.

(Interphase) Prophase, Metaphase, Anaphase, Telophase (PMAT) and Cytokinesis (Part of Telophase)

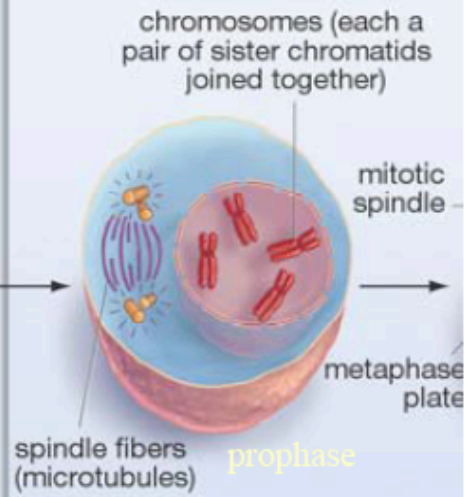
8. Be able to label the stages of mitosis from a diagram. Also, be able to draw the various stages. (Practice this in the practice test.)



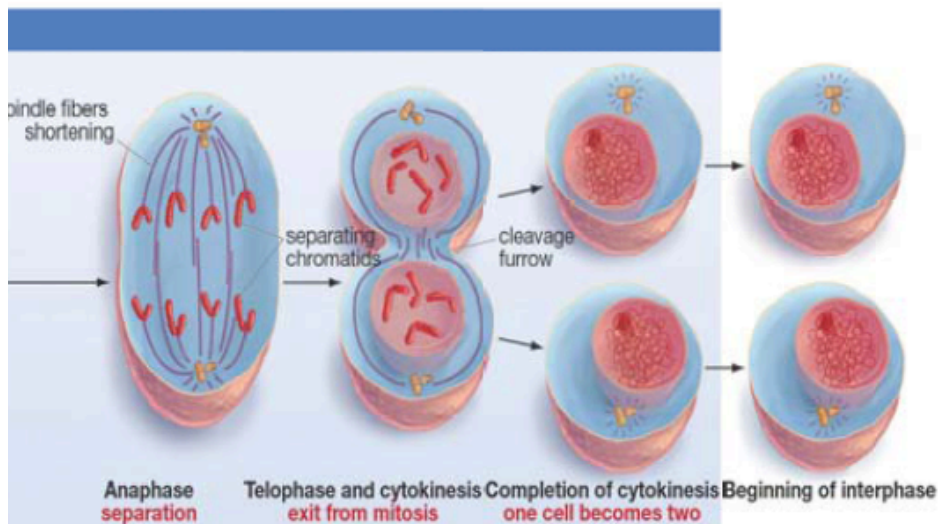


interphase

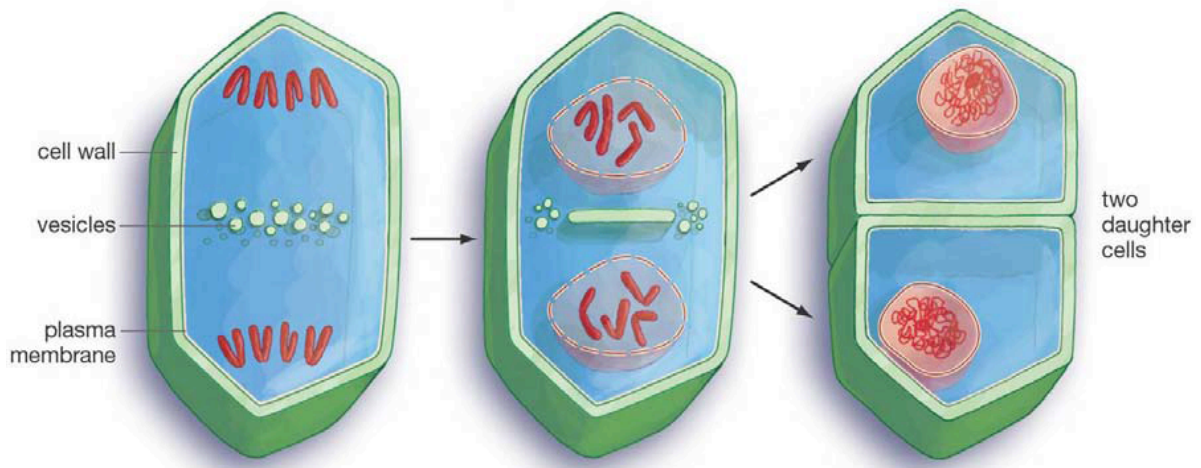
Mitosis and cytokinesis



prophase



9. Know the difference between how plant and animal cells divide.



In animal cells, the cytoplasm pinches in and in plant cells a new cell wall is built.

***** Review all notes, labs and worksheets *****