

Unit 5 (Ch. 9 & 10.1) Cellular Reproduction Notes

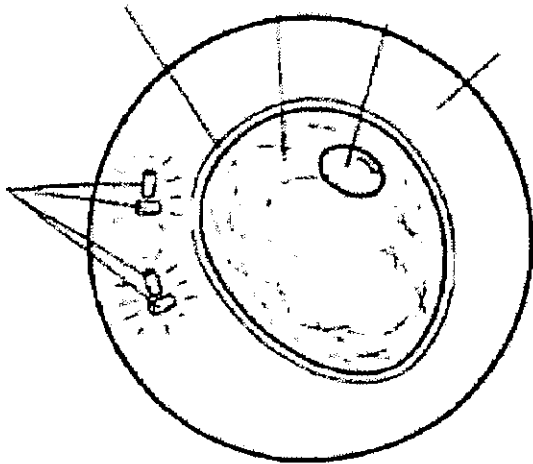
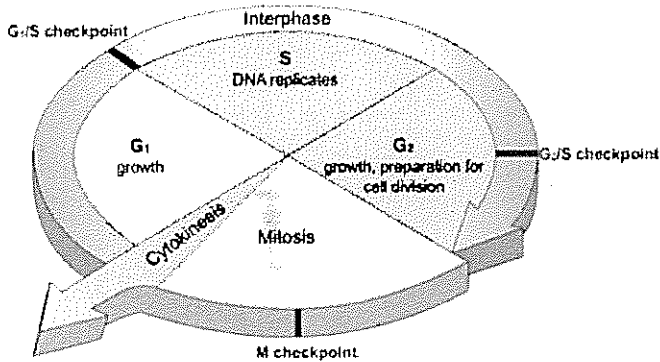
Cell Cycle

According to the cell theory, cells come from _____.

The _____ is the life of the cell.

Cell Cycle (3 Main Stages)

-
-
-



Interphase

Interphase – 1st Stage of Cell Cycle

Cells spend _____ of their life in Interphase.

Cells perform their _____ during Interphase.

Cells _____ and the _____ double during _____ of Interphase.

_____ occurs during _____ of Interphase.

Cells continue to grow and prepare to divide during _____ of Interphase.

There are 3 checkpoints in the cell cycle regulated by _____ and _____.

Cell nucleus is visible and DNA is in string-like form called _____.

Mitosis (4 Phases: Prophase, Metaphase, Anaphase, Telophase) – 2nd Stage of Cell Cycle

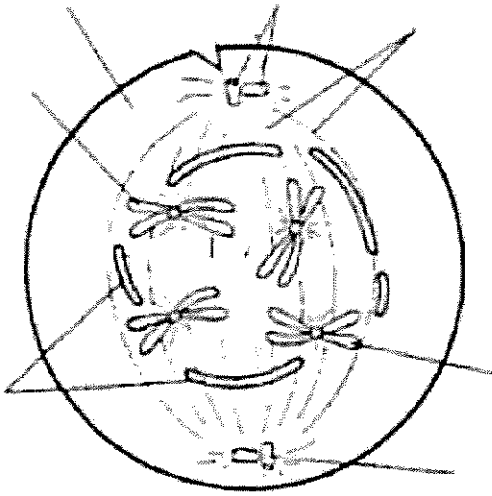
Division of the cell's _____.

The DNA copies/chromosomes are separated in 4 main phases.

Mitosis creates _____.

Mitosis is important for _____ and _____ of an organism.

Prophase



Chromosomes each have _____ from DNA replication in S of Interphase.

Centrioles begin _____.

Nuclear membrane _____ and the _____ disappears.

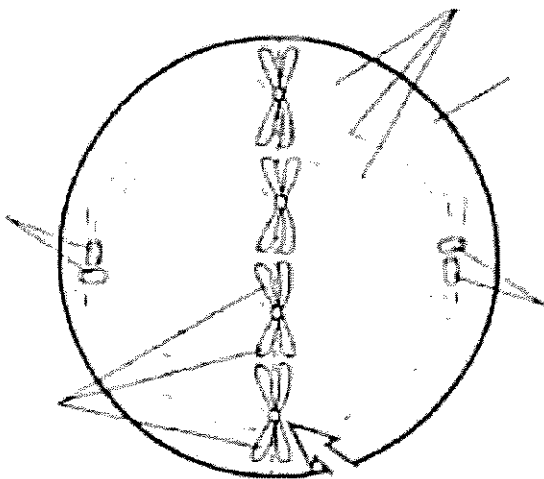
_____ condenses into visible _____.

_____ begins to form from the _____ at both poles of the cell.

The spindle attaches to the _____ of the chromosomes.

Prophase

Metaphase

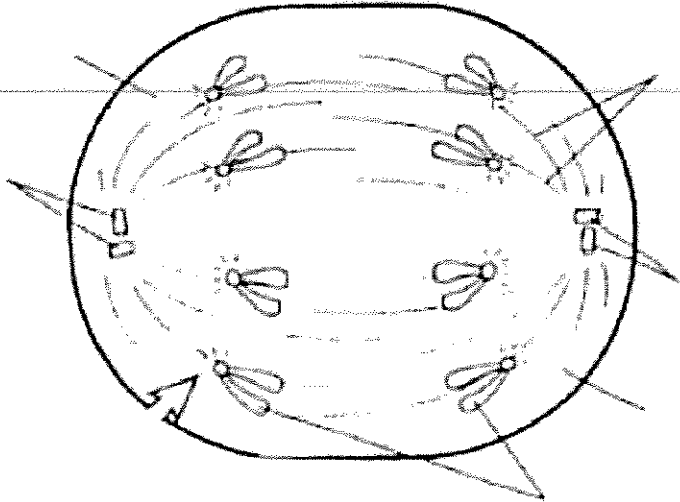


_____ each consisting of two sister chromatids attach to the spindle apparatus and align along the _____ or middle of the cell.

_____ are at opposite poles of the cell.

Metaphase

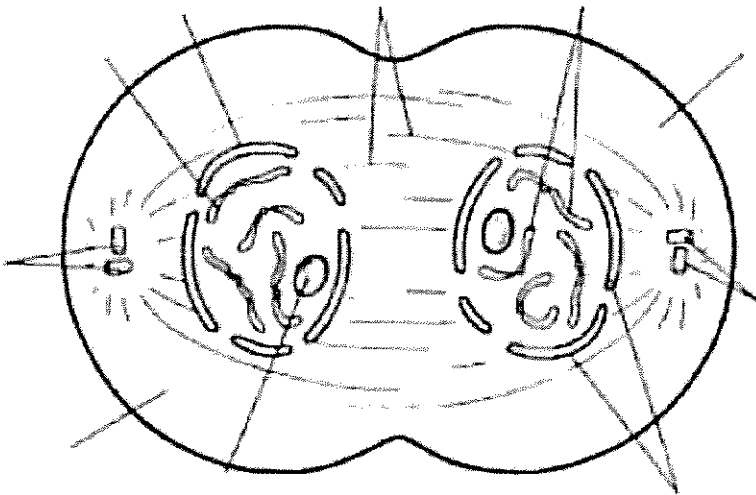
Anaphase



Anaphase

_____ chromatids
(chromosomes) separate and move toward
opposite poles of the cell.

Telophase



Telophase

_____ (chromosomes) reach the poles
of the cell.

_____ and
_____ reform at
each end of the cell.

Chromosomes/DNA returns to
the string-like form called

_____.

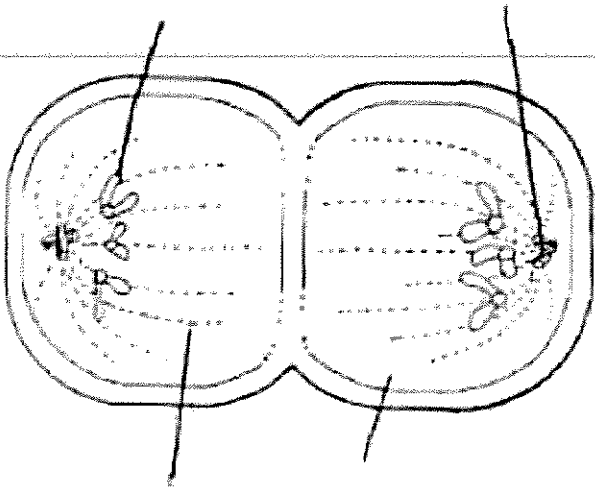
Cytokinesis – 3rd Stage of Cell Cycle

Division of the cell's _____.

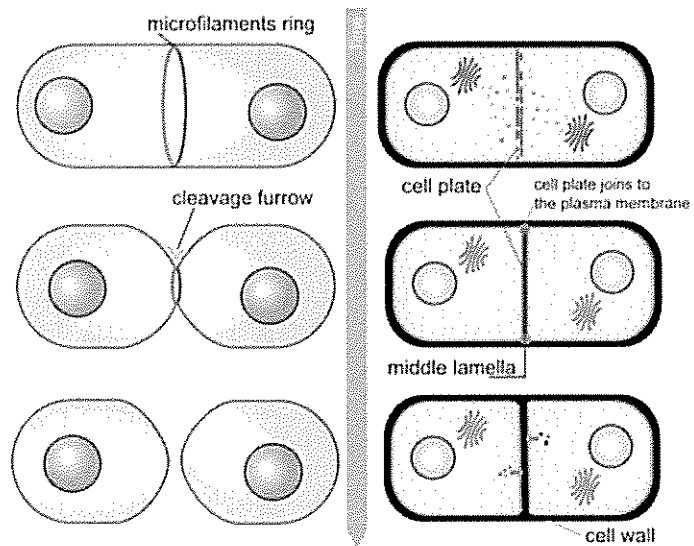
Cytokinesis in Animal Cells vs Plant Cells:

In animal cells, a _____ forms and _____ the cell into _____ cells.

In plant cells, a _____ forms from the _____ and joins to the _____.



Cytokinesis



Interphase "I"

Prophase "Promised"

Metaphase "Mother"

Anaphase "A"

Telophase "Telephone"

Cytokinesis "Charlie"

RESULTS OF CELL CYCLE (MITOSIS)

- 2 _____ cells with the _____ number of _____. In humans, there are _____ chromosomes in each body/somatic cell.
- Important for _____ and _____ of living organisms.