

1-2 C2:Cell Cycle Mitosis Notes

Monday, January 17, 2022 1:42 PM



Cell Cycle
Mitosis N...

Name: _____

Date: _____

Notes: The Cell Cycle and Mitosis

Stages of the Cell Cycle

- Due to the loss and death of cells, the body must replace them. A good example of this is human skin cells - each day millions are shed.
- The life of a cell is divided into three stages known as the cell cycle:

- Interphase :

cell carries out normal functions.

- Mitosis :

nucleus contents duplicated and divide into two equal parts.

- Cytokinesis :

separation of two nuclei and cell contents into two daughter cells.

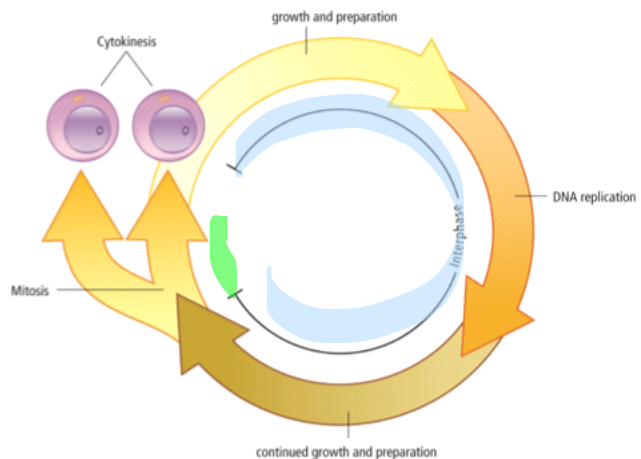


Figure 5.4 The stages of the cell cycle: interphase, mitosis, and cytokinesis

- **Phase 1: Interphase**
- Interphase, the longest cell cycle stage (90 % of time), is when a cell perform normal function and grows. For example, an intestinal lining cell absorbing nutrients.
- In late interphase, DNA copies itself in the process of replication.
Replication involves several steps:
 - The DNA molecule unwinds with the help of an enzyme.
 - New bases pair with the bases on the original DNA.
 - Two new identical DNA molecules are produced.



	Interphase	Prophase	Metaphase	Anaphase	Telophase	Cytokinesis
Nuclear Membrane	✓				✓	✓
Nucleolus	✓	✓			✓	✓
Chromosomes (Chromatin)	✓	✓			✓	✓
Chromosomes (Sister Chromatids)		✓	✓	✓		*Cell membrane and cell wall (for plants) formed
Centromere		✓	✓			
Spindle fibre			✓	✓		
Centrioles	✓	✓	✓	✓		
Poles		✓	✓	✓		
Equator			✓			

