

Cell Division Notes

Name _____

Date _____ Hour _____

Why do cells divide?

- To reproduce (unicellular organisms)
- To grow (multicellular organisms)
- To differentiate (multicellular organisms)
- To repair dead or damaged cells (multicellular organisms)

How long does cell division take?

- The Cell Cycle- Grow → Rest → Divide → Repeat → Die
 - This cycle is regulated by the genes in the nucleus.
 - Cells die when they are injured or deprived of necessities. They are also programmed to die when they are old or ineffective. This is called Apoptosis. This is necessary for a healthy body and immune system.
 - The length of a cell cycle varies per type of cell or organism. Some are minutes, some are up to a year. In the human body, 50 million cells die and are replaced every few seconds.

Mitosis: The process by which a parent cell divides into two daughter cells.

1. Duplication of the chromosomes in the nucleus
2. Dividing up of chromosomes and cytoplasm

