

Biological Cells (Chapter Review) Vocabulary Study Guide

Cell Cycle

Series of growth, DNA replication, and cell division that result in a multicellular cell

Mitosis

process by which a cell divides to produce two daughter cells

Cytokinesis

process by which the cell cytoplasm divides

Chromosomes

Long, continuous of DNA that consists of numerous genes and regulatory information

Genes

units that regulate chromosomes and control which DNA-segments

Chromatids

Linear continuation of DNA and proteins that is present during interphase

Sister Chromatids

one half of a duplicated chromosome

Centromeres

region of condensed chromosomes that holds together sister chromatids during mitosis and meiosis

Kinetochore

specialized structure at the ends of DNA molecules that do not form genes and help prevent the loss of genes

Prophase

First stage of mitosis when chromosomes condense, the nuclear envelope breaks down, the nucleolus disappears, and the centromeres and kinetochore regions to opposite sides of the cell

Metaphase

Second phase of mitosis when sister chromatids align the chromosomes along the cell equator

Anaphase

Third phase of mitosis during which chromosomes separate and are pulled to opposite sides of the cell

Telophase

Last phase of mitosis when a complete set of double-chromosomes is produced at each pole of the cell

Growth Factors

Small group of proteins that stimulate cell division