

Vocabulary: Cell Division

- Asexual reproduction – a form of reproduction in which a single parent produces offspring.
 - Offspring produced through asexual reproduction are genetically identical to their parent.
- Cancer – a disease characterized by uncontrolled cell growth.
- Cell cycle – a series of events that take place within a cell, which lead to its growth and division.
 - The stages of the cell cycle include the resting phase, gap I phase, *DNA* synthesis phase, gap II phase, and mitotic phase.
- Chromosome – a rod-shaped or circular structure within a cell that is composed of DNA and proteins.
 - Chromosomes are passed from one generation to the next.
- Cytokinesis – a process that takes place at the end of *mitosis* in which a cell's cytoplasm divides.
- DNA – material in the cell that contains genetic information.
 - DNA stands for *deoxyribonucleic acid*.
 - The DNA molecule has the shape of a double helix, or twisted ladder. The sides are composed of a sugar (deoxyribose) and phosphate groups. The “rungs” of the ladder are composed of pairs of nitrogenous bases.
- Interphase – the period in the cell cycle during which the cell grows, matures, and duplicates genetic information.
 - Interphase is made up of the resting phase, gap I phase, DNA synthesis phase, and gap II phase of the cell cycle.
- Meiosis – a form of cell division that produces four reproductive cells from a single parent cell. Each reproductive cell has half the number of chromosomes as the parent cell.
- Mitosis – a form of cell division that results in two daughter cells, each with the same number of chromosomes as the parent cell.
- Sexual reproduction – a form of reproduction in which two sex cells fuse to form a new individual.
 - Offspring produced through sexual reproduction are genetically different from their parent(s).