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).