Vocab

- Cytology: the study of cells and their structure
- Cell: smallest living organism, building block for tissues / organisms

Cellular Transportation:

- Cellular transportation: movement of objects across the cell membrane
- Diffusion: high concentration to low concentration
- Concentration gradient: difference in solute concentrations within a solvent

  EX: one glass of water has more salt than the other glass of water, and vise versa
- **Passive transport: high to low, requires no energy**
- **Active transport: low to high, requires energy**
- Osmosis: WATER, high to low
- Tonicity: degree of solute compared to water concentration, causes movement of water
- Hypotonic: BURSTING, lower solute, higher solvent
- Hypertonic: SHRINKING, higher solute, lower solvent
- Isotonic: EQUAL, solute concentration is equal to amount of molecules
- Pinocytosis: liquids, “cell drinking”
- Exocytosis: OUT OF CELL, secretion of hormones, waste, mucus

Reminders:

*previous chapter carrying over and relating to current chapter

- Inorganic compounds: water, oxygen, carbon dioxide, inorganic salts
- Organic compounds: carbohydrates, proteins, lipids, nucleic acids
- Water: solvent for metabolic reactions
- **Oxygen:** used to drive cell metabolism and release energy from nutrients
- Carbon dioxide: released as a waste product during metabolism
- Inorganic salts: help mediate cell metabolism

Carbohydrates: source of energy for immediate use, digestible carbs are turned into glucose, **glucose is oxidized to make ATP**