UNIT 2 TEST – STUDY GUIDE

* Everything from Unit 1 (Ch 2, 3)!
* Chapter 4
  + Versatility of carbon
  + Hydrocarbons – polarity, structure
  + Functional groups – types, role in hydrocarbons, examples in macromolecules.
* Chapter 5
  + For each category of macromolecule
    - Monomer(s) and their structures
    - Type of bond formed between monomers
    - Function(s) and be able to describe a specific example of a molecule that performs this function in living systems.
  + Dehydration synthesis and hydrolysis
* Chapter 6
  + Organelles: nucleus, cell membrane, cytoskeleton, ribosome, mitochondria, chloroplasts, cell wall, rough and smooth ER, Golgi body, lysosome, peroxisome.
  + For each organelle, describe its structure, function (macromolecule interactions, organelle interactions) and how the structure affects function.
* Chapter 7
  + Cell membrane structure (membrane proteins, phospholipids, fluid mosaic model, cholesterol, semi-permeability)
  + Types of transport (active [including proton pumps], passive, facilitated diffusion, cotransport)
  + Osmosis
    - Water potential
    - Calculate solute potential
    - Discuss water potential as it applies to living systems
  + Tonicity

UNIT 2 TEST – STUDY GUIDE

* Everything from Unit 1 (Ch 2, 3)!
* Chapter 4
  + Versatility of carbon
  + Hydrocarbons – polarity, structure
  + Functional groups – types, role in hydrocarbons, examples in macromolecules.
* Chapter 5
  + For each category of macromolecule
    - Monomer(s) and their structures
    - Type of bond formed between monomers
    - Function(s) and be able to describe a specific example of a molecule that performs this function in living systems.
  + Dehydration synthesis and hydrolysis
* Chapter 6
  + Organelles: nucleus, cell membrane, cytoskeleton, ribosome, mitochondria, chloroplasts, cell wall, rough and smooth ER, Golgi body, lysosome, peroxisome.
  + For each organelle, describe its structure, function (macromolecule interactions, organelle interactions) and how the structure affects function.
* Chapter 7
  + Cell membrane structure (membrane proteins, phospholipids, fluid mosaic model, cholesterol, semi-permeability)
  + Types of transport (active [including proton pumps], passive, facilitated diffusion, cotransport)
  + Osmosis
    - Water potential
    - Calculate solute potential
    - Discuss water potential as it applies to living systems
  + Tonicity