

## Biology I – Unit 2 Study Guide

bio1u2sg (Biochemistry)

### Study Objectives

1. Explain the importance of carbon bonding in biological molecules.
2. Summarize how large carbon molecules are synthesized **and** broken down.
3. Describe how the breaking down of ATP supplies energy to drive chemical reactions.
4. Distinguish between monosaccharides, disaccharides, and polysaccharides.
5. Explain the relationship between amino acids and protein structure.
6. Describe the role of enzymes as catalysts in metabolism and cellular synthesis of new molecules.
7. Compare the structure and function of each of the different types of lipids.
8. Explain how the instructions for the characteristics of all organisms are carried in nucleic acids.

### Vocabulary

organic monomer inorganic polymer lipid carbohydrate protein amino acid enzyme catalyst substrate active site  
functional groups dna rna nucleotide macromolecule condensation reaction hydrolysis adenosine triphosphate

### Assignments

- Reading: Chapter 3 (Modern Biology)
- Notebook: **10pts**
  - ✓ Case Study: "Harvest of Fear" A Nova/Frontline Special ([www.pbs.org/wgbh/harvest/](http://www.pbs.org/wgbh/harvest/))
  - ✓ Notes for Study Objectives
  - ✓ Crossword
  - ✓ [My Daily Food Plan](#)
- Lab: Measuring pH **10pts**
- Lab: Saponification (Exploration/Application) [Rebatching Soap Instructions](#)
- Lab: Catalysts of Life **10pts**
- Vocabulary Quiz **15pts**
- Test **10pts**

WebSources: [www.biology-online.org](http://www.biology-online.org)

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