



Mr. Silluzio
Biology Lesson Plan
Date:

Topic: Chemistry of Life: Introduction to Biological Molecules; Carbohydrates, Lipids, Proteins and Nucleic Acids

Summary: Following brief whole class instruction focused on the molecules listed above, students will use models ([click here for lab handout](#)) to construct the molecules listed above. As students build monomers, they are asked to connect these monomers to construct polymers. Students demonstrate key role water plays in both constructing and digesting polymers.

Goals/Objectives:

- Differentiate between the four macromolecules listed above in terms of both structure and function.
- Understand that polymers are constructed with monomers using dehydration synthesis and deconstructed/metabolized using hydrolysis
- Understand that atoms bind in predictable patterns as dictated by their valence properties.
- Be able to interpret hydrocarbon short hand.

Standards:

[Corresponding Curriculum](#)

Time Required:

4 80 minute periods (time distributed over several periods)

Homework: Read chapters 2 and 3 Campbell. Most students will need to complete analysis questions outside of class.

Prerequisite Knowledge:

Understanding of octet rule, hydrocarbon shorthand, properties of water and covalent and ionic bonding.

Accommodations:

Notes, resources and enrichment material are available on a class webpage.