Biochemistry

Unit 2

**Drawings:**

**Definition of “Monomer:”**

**What is the monomer of a…**

* Carbohydrate?
* Lipid?
* Nucleic Acid (like DNA)?
* Protein?

**COVERSHEET DIRECTIONS:** Draw what you picture for each of these words:

***Carbohydrate, Lipid (Fat), DNA, and Protein.*** Please label each drawing. Then on the computer look up the definition of a monomer and a polymer. Lastly, write the names of the monomers of each of the categories listed above.

***Key Vocabulary***:

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***Self-Assess:***

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| “I can” statements  \*Rate yourself on a scale of 1-5 (5 being the best)\* | Khan Academy Lesson or Video | Topic Practice |
| ***Topic 1: Atomic and Molecular Structure***  \_\_\_\_\_\_ 1. I can describe the structure of an atom (subatomic particles, their charges, and where they’re located)  \_\_\_\_\_\_ 2. I can describe ionic vs. covalent bonds.  \_\_\_\_\_\_ 3. I can identify the six main elements in living things. |  |  |
| ***Topic 2: Properties of Water***  ­­­­\_\_\_\_\_\_ 1. I can describe how O and H make water polar.  \_\_\_\_\_\_ 2. I can explain how water’s polarity allows it to hydrogen bond.  \_\_\_\_\_\_ 3. I can explain the unique properties of water (i.e. adhesion)  \_\_\_\_\_\_ 4. I can explain the pH scale & give examples of acids & bases. |  |  |
| ***Topic 3: Macromolecules***  \_\_\_\_\_ 1. I can describe how dehydration synthesis builds polymers and how hydrolysis breaks them down.  \_\_\_\_\_ 2. I can list the monomers, polymers, structures, and functions of each macromolecule. |  |  |
| ***Topic 4: Enzymes***  \_\_\_\_\_ 1. I can identify the components of a chemical reaction.  \_\_\_\_\_ 2. I can define a chemical reaction as the breaking/forming of bonds  \_\_\_\_\_ 3. I can describe how the substrate fits the active site (lock-and-key)  \_\_\_\_\_ 4. I can describe how catalysts/enzymes lower activation energy/increase speed of a reaction. |  |  |