Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Assignment:\_\_\_\_\_\_

**Macromolecules Review**

**Biochemistry Review**

1. What is the difference between an atom, molecule and compounds? Which of them can be broken down?
2. What changes when you are creating ions and isotopes? (what subatomic particle are you messing with)
3. In a chemical reaction, what are the products? What are the reactants? Explain these by labeling a chemical equation in your answer with each.
4. What are the six most common elements in macromolecules?

**Complete the chart below with the characteristics of life:**

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Description** | **Examples** |
| Reproduction |  |  |
| Heredity |  |  |
| Homeostasis |  |  |
| Cellular Organization |  |  |
| Metabolism  |  |  |

**Complete the following chart comparing macromolecules:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Macromolecule** | **Main Functions** | **Monomer** | **Examples** |
| Carbohydrates |  |  |  |
| Proteins |  |  |  |
| Lipids |  |  |  |
| Nucleic Acids |  |  |  |

**Make a chart below comparing saturated and unsaturated fats:**

Saturated Fats Unsaturated Fats

**Enzymes:**

1. What is the purpose of using enzymes in chemical reactions?
2. What type of macromolecule are enzymes?
3. How are the following words related to enzymes: products, substrate, enzyme, active site
4. Do enzymes every get used up?
5. What affects enzyme’s activity?
6. What do enzymes do to activation energy? What is activation energy?