

Chemistry of Life Review:**NAME-** _____

The topics or questions listed on this review will help you to know what will be on your test. You should study and be familiar with the following:

1. Atoms/Elements:

a. Parts of the atom (fill in the blanks with the appropriate information)

| Parts of the atom: | Protons | Neutrons | Electrons |
|------------------------|---------|----------|-----------|
| Charge | | | |
| Position in the atom | | | |
| Number of them in atom | | | |

b. The 4 most abundant elements in living things are:

c. Explain the difference in covalent vs. ionic bonds and give an example of a compound that is held together by each type of bond:

2. Properties of Water:

Water is a polar molecule. What does this mean?

You need to know these properties of water and how they make life on earth possible: **(explain each one)**

- Cohesion
- Adhesion
- High heat capacity
- Capillary action
- Universal solvent
- Density

3. Macromolecules:

Using your foldable, fill in the table below with the essential information on macromolecules.

| Macromolecule | Function in the body | Elements made from | MONOMERS | Examples |
|---------------|----------------------|--------------------|----------|----------|
| Carbohydrates | | | | |
| Lipids | | | | |
| Proteins | | | | |
| Nucleic Acids | | | | |

4. Explain the different types of carbohydrates – monosaccharides, disaccharides, polysaccharides

5. Enzymes :

a. What is an enzyme?

b. Explain how enzymes work OR draw a picture of a chemical reaction where an enzyme is either building or breaking down a molecule.