**Unit 1 Review: Biomolecules**

1. List the levels of organization- from smallest to largest:
2. Which biomolecule provides more energy on a gram per gram basis, a carbohydrate or a lipid?
3. Define the following terms:
	1. Biomolecules
	2. Monomer
	3. Polymer
	4. Dehydration synthesis
	5. Hydrolysis
4. List the elements found in each biomolecule:
	1. Carbohydrates –
	2. Lipids -
	3. Proteins –
	4. Nucleic Acids –
5. Fill out the following Macromolecule chart with the information needed. Indicate what type of biomolecule is shown/described and indicate the monomer or structural unit:

|  |  |  |  |
| --- | --- | --- | --- |
| What type of biomolecule? http://t1.gstatic.com/images?q=tbn:ANd9GcRWk2YwZfyoqSlitlLRdef3qrx3gawEoUDVx7oLU_9xoLiZj0Zj60qFKBA **Monomer?** | What type of biomolecule?C:\Users\e127107\Desktop\Picture2.png**Structural unit?** | What type of biomolecule?nucleotide.gif**Monomer?** | saccarideWhat type of biomolecule? **Monomer?** |
| What is the Function of this biomolecule? | What is the Function of this biomolecule? | What is the Function of this biomolecule? | What is the Function of this biomolecule? |

1. What is another term for a “biological catalyst”?
2. What type of macromolecule is an enzyme?
3. What do enzymes do? How do they do it?



1. Can enzymes act on any substrate, or are they specific?
2. Look at the diagram to the right. What does the addition of the enzyme do to the activation energy?
3. Underline which of the following could change the rate of a reaction, and highlight which could cause an enzyme to denature:
	1. Adding more substrate
	2. Diluting the enzyme mixture (less enzymes)
	3. Lowering the temperature
	4. Altering the pH of the solution
	5. Raising the temperature to above boiling
4. Label on the diagram below: substrate, products, enzyme, active site

