Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_ Doc #: 10

Level Biochemistry and Graphing Test Review Sheet

1. Complete the following table on the four classes of biomolecules:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Biomolecule/****Organic Macromolecules** | **Subunit/****Building Block** | **Example** | **Function** | **Elements/Structure** |
| Carbohydrates |  | \_\_\_\_\_\_\_\_\_\_\_\_, Starch and dietary fibers | 1.2. Structural purposes **ex. Chitin, Cellulose** | C,H, and O in a 1:2:1 ratio- hexagon shape |
|  | **3** Fatty Acids and Glycerol | \_\_\_\_\_\_\_, \_\_\_\_\_\_\_ and Waxes | 1. 2. 3. Hormones  |  |
|  |  | DNA and RNA |  | C, H, O, P and N- 3 parts: sugar base, phosphate group and nitrogenous base |
| Proteins |  |  | 1. 2. 3. fight disease |  |

1. Underneath each picture, write which biomolecule it is depicting:



 **Saturated Fatty Acids**

 Unsaturated
 fatty acid

1. What makes each Amino Acid unique? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Which biomolecule is our main source of energy? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Monosaccharide means \_\_\_\_\_ sugar and an example is \_\_\_\_\_\_\_\_\_\_\_\_.
4. Disaccharide means \_\_\_\_\_\_ sugars and an example is sucrose.
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ means many sugars and an example is starch.
6. Enzymes belong to which of the major classes of biomolecules? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. The process that occurs when two molecules join together is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Monomers are joined to make polymers and \_\_\_\_\_\_\_\_\_ is lost in the process.
8. The process that occurs when two molecules break apart is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Polymers are broken into monomers which requires the addition of \_\_\_\_\_\_\_\_\_\_\_\_.
9. Which of the above processes would describe the breaking apart of Maltose? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. Define Activation Energy: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. A substance that speeds up the rate of chemical reactions is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. Enzymes are biological \_\_\_\_\_\_\_\_\_\_\_\_ that increase the speed chemical reactions by \_\_\_\_\_\_\_\_\_\_\_ the activation energy.
13. Roles of enzymes include:
	1. Control and manage \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_
	2. Bind to \_\_\_\_\_\_\_\_\_\_ molecules (lactase digests lactose)
	3. Work best under \_\_\_\_\_\_\_\_\_\_\_ conditions.
14. When an enzyme works, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ binds to the \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ which has a very specific shape. (Bonding sites of Enzyme to Substrate fit like \_\_\_\_\_\_\_\_\_\_\_\_\_ puzzle.)
15. Three things that can affect enzyme function are:
	1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
16. Use your notes to fill in the following Prefix/Suffixes:

|  |  |
| --- | --- |
| **ROOT WORD** | **MEANING** |
| Mono -  |  |
|  | Two, Double |
| Macro |  |
|  | Sugar |
| Bio |  |
|  | Many, Much |
| Hydro |  |
|  | To remove |
| Lysis |  |
|  | To make |

1. Label the Parts of the Enzyme:



20. The FIVE parts of a graph include:

1. \_\_\_\_\_\_\_\_\_\_\_\_\_ 2) \_\_\_\_\_\_\_\_\_\_\_\_\_ 3) \_\_\_\_\_\_\_\_\_\_\_\_ 4) \_\_\_\_\_\_\_\_\_\_\_ 5) \_\_\_\_\_\_\_\_\_\_\_

21. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable is the variable being tested and is also called the manipulated variable.

22. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable is the variable that you measure and is also called the responding variable.