

Carbohydrates Worksheet

Name: _____

1. Which elements do carbohydrates contain, and in what ratio?
2. If a sugar compound has 11 oxygen atoms, how many hydrogen atoms does it contain?
3. Based on their molecular formulas, which of the following are NOT carbohydrates?
 - a. $C_3H_8O_3$
 - b. $C_{10}H_{18}O_9$
 - c. $C_{18}H_{32}O_{16}$
 - d. $C_4H_8O_2$
 - e. $C_{16}H_{32}O_2$
 - f. $C_6H_{12}O_6$
4. For each molecule below, determine if it is a monosaccharide, a disaccharide, or a polysaccharide:
 - a. Fructose
 - b. Ribose
 - c. Cellulose
 - d. Glucose
 - e. Sucrose
 - f. Glycogen
 - g. Chitin
 - h. Starch
 - i. Maltose
5. Describe a biological function for each of the following carbohydrates:
 - a. Cellulose
 - b. Ribose
 - c. Starch
 - d. Glycogen
 - e. Deoxyribose
 - f. Fructose
 - g. Sucrose
6. Complete these word equations
 - a. Glucose + glucose \rightarrow
 - b. Glucose + fructose \rightarrow
 - c. Monosaccharide + monosaccharide \rightarrow
 - d. Lactose + water \rightarrow
 - e. Disaccharide + water \rightarrow
7. Briefly describe the process of the condensation reaction for carbohydrates.

CARBOHYDRATE WORKSHEET

I. Underline the mistakes in the following paragraph and write the correct information on the lines below the paragraph.

- a. Organic molecules are molecules containing sulfur.
- b. A polymer is made of many smaller units called monocles.
- c. The monomers for carbohydrates are called monosweeteners.
- d. Monosweeteners are the same thing as simple sugars.
- e. Two monosaccharides combined are called a divorce.
- f. A string of monosaccharides is called a polymonomer.
- g. The three polysaccharides are: starch, glycogen, and cellulite.
