

BIOLOGY WORKSHEET

Grade: X

“ CARBOHYDRATES”

Students name: _____

Fill the gap according with the video using these words in the table. point 22/___

polysaccharide	Galactose	energy	Fructose	oxygen	disaccharides
sugars	hydrogens	Lactose	Monosaccharides	structural	Macromolecule

Carbohydrates are a _____ made up of Carbon, Hydrogen and Oxygen in a 1:2:1 ratio, so there is one carbon for every two _____ and one _____ in all carbohydrates. They are also known as _____ and have several key functions in living organisms: Rapid _____ production through glycolysis, energy storage as glycogen in animals and starch in plants, and a _____ component of plants as cellulose and crustaceans and insects as chitin. The simplest form of carbohydrates are called _____. Mono means “one” and saccharide means “sugar” so a monosaccharide is a single carbohydrate molecule. Examples include glucose, an important simple sugar that is a key energy source in living organisms and the core of many structural carbohydrates. _____ is the sugar found in many fruits. _____ is a sugar found in yogurt and is less sweet than fructose and glucose, and Ribose is monosaccharide that helps form DNA. You are probably also familiar with some _____, which are two monosaccharides chemically bound together. Examples include Sucrose, which is common table sugar and as formed from glucose and fructose, and _____ is the sweetener in milk formed from galactose and glucose. People who are lactose intolerant have low levels of the protein lactase, which breaks down lactose, and if they can’t break down lactose, your stomach will be upset. When more than two monosaccharides are combined, a _____ is formed. Starch, glycogen, and cellulose are all examples of polysaccharides, and they are all made of the same monomer, glucose. The way the glucose is bound together determines whether the resulting saccharide is starch, glycogen, or cellulose. Needless to say, carbohydrates are pretty important.