Name Class Date

Pre-reading Homework #1

**Section 2-3 Carbon Compounds (pages 44-48)**

 **Key Concept**

• What are the functions of each group of organic compounds?

**The Chemistry of Carbon (page 44)**

**1.** How many valence electrons does each carbon atom have?



**2.** What gives carbon the ability to form chains that are almost unlimited in length?



**Macromolecules (page 45)**

**3.** Many of the molecules in living cells are so large that they are known as

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1. What is the process called by which macromolecules are formed?

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1. When monomers join together, what do they form?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**6.** What are four groups of organic compounds found in living things?

**a.**

**b.**

**c.**

**d.**

**Carbohydrates (pages 45-46)**

**7.** What atoms make up carbohydrates? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**8.** Circle the letter of each sentence that is true about carbohydrates.

**a.** Starches and sugars are examples of carbohydrates.

**b.** Living things use them as their main source of energy.

**c.** The monomers in sugar polymers are starch molecules.

**d.** Plants and some animals use them for strength and rigidity.

**9.** Single sugar molecules are also called

**10.** Circle the letter of each monosaccharide.

**a.** galactose **c.** glucose

**b.** glycogen **d.** fructose

**11.** What are polysaccharides?

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**12.** How do plants and animals store excess sugar? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_