

CHAPTER REVIEW

CHAPTER

4

Know the Terms

Select the most appropriate words from the list to complete the following paragraphs.

nucleic acids
thymine
DNA
ribose
hydrolysis
hydrogen
dehydration synthesis

amino acids
polysaccharide
lipids
cytosine
proteins
fatty acids
deoxyribose

peptide bond
saturated
enzymes
carbohydrates
oxygen
guanine
organic compounds

adenine
glycerol
RNA
monosaccharides
disaccharide
carbon
unsaturated

Living organisms are composed of a special category of molecules called (1). Molecules must have both (2) and (3) atoms in them to be in this category. In addition they usually contain (4) atoms as well.

Sugars and starches are (5), which always have a carbon to hydrogen ratio of 2:1. They are composed of building blocks called (6). Two of these units can be attached to each other through a process called (7), which results in a (8). If more subunits are hooked on, we get a (9). This type of molecule can be broken into its building blocks again through the reverse reaction, called (10).

(11) have a hydrogen to oxygen ratio greater than 2:1 and include fats, oils, and waxes. If the carbon-to-carbon bonds in these molecules are all single bonds, they are said to be (12). If there are any double bonded carbons, the molecule is said to be (13). The building blocks of these molecules are (14) and (15).

The group of organic molecules that contain nitrogen are called (16). They have (17) as their building blocks. The bond connecting two of these together is called a (18). Some of these molecules function as (19), which catalyze chemical reactions within cells.

The group of organic molecules that were first discovered in the nucleus of the cell are called (20). There are two kinds of these molecules. They are (21) and (22). One of these is described as a double helix. Its subunits are composed of a five-carbon sugar, called (23), and one of four bases.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____