

Name _____ Period _____ Date _____

WEBQUEST: Carbon-Based Molecules

CARBOHYDRATES:

Go To → <https://www.wisc-online.com/learn/natural-science/life-science/ap13104/biomolecules-the-carbohydrates>

1. What kind of molecules are carbohydrates?
2. What elements are found in carbohydrates? _____
3. What is the ratio of Carbon to Hydrogen to Oxygen? _____
4. Carbohydrates comprise what percentage of our body cells? _____
5. List 4 monosaccharides:

6. What is the name for the smallest carbohydrate?
7. Disaccharides include what sugar molecules?
8. Polysaccharides include what molecules?
9. Sugars are mainly providing living things with _____.

PROTEINS:

Go To → <https://www.wisc-online.com/learn/natural-science/life-science/ap13304/biomolecules---the-proteins>

1. Proteins comprise what percentage of our body cells? _____
2. What are proteins built from?
3. How many amino acids do we have in our bodies? _____
4. What determines the primary structure of a protein molecule?

LIPIDS:

Go To → <https://www.wisc-online.com/learn/natural-science/life-science/ap13204/biomolecules---the-lipids>

1. Lipids are _____ molecules that are insoluble in water.
2. What are fatty acid chains?
3. Define/describe saturated fatty acids .
4. How is cholesterol used in our bodies?

Go To → http://www.chem4kids.com/files/bio_lipids.html

5. What are the two main parts of a lipid?
6. Explain what makes a fat saturated or unsaturated?
7. How does the basic structure of a steroid differ from other macromolecules such as carbohydrates?
8. What is the role of waxes?
9. Compare the energy values of a carbohydrate molecule versus a fat molecule.

NUCLEIC ACIDS:

Go To → http://www.chem4kids.com/files/bio_nucleicacids.html

1. What are nucleic acids?
2. What is the monomer unit of a Nucleic Acid?

Go To → http://www.chem4kids.com/files/bio_dna.html

3. What is a double helix?

4. What are the three parts to a nucleotide?

5. What is the full name of DNA?

6. What part of DNA provides the code for proteins?

7. Genetic variation is based on the: (circle one)
 - A. Sugars
 - B. Hydrogen Bonds
 - C. Phosphate groups
 - D. Nitrogen Bases