

Macromolecules Webquest

- I. Answer all questions with complete sentences on a separate sheet of lined paper.
- II. Write bold headings and number of question. Skip a line between each answer.

Carbohydrates

http://www.chem4kids.com/files/bio_carbos.html

1. What is the difference between a monosaccharide and a disaccharide? Provide examples of each.
2. Why is sugar considered an organic compound?
3. What are the three elements found in all sugars?
4. According to the web site what do potatoes, wood and lobster shells have in common?

Lipids

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.

Amino Acids

http://www.chem4kids.com/files/bio_aminoacid.html

10. How many essential amino acids are there?
11. What makes a substance an acid?
12. What is formed when amino acids form long chains or polymerize?
13. Choose one amino acid and draw its structure. Circle the part of the molecule that is the "amino group."

Proteins

http://www.chem4kids.com/files/bio_proteins.html

14. How many steps or structures are involved in folding a protein?
15. What is meant by the scientific term "blob?"

Nucleic Acids

http://www.chem4kids.com/files/bio_nucleicacids.html

16. What are the five monomer units of a NA?
17. What is a double helix?
18. What are the three parts to a nucleotide?
19. What makes a substance a base?
20. What is the full name of DNA?