Name: _____

BIOLOGICAL MOLECULES
WEBQUEST

DIRECTIONS: Go to the following website on CARBOHYDRATES and answer these questions: http://www.chem4kids.com/files/bio_carbos.html

1. Carbohydrates are made up of the following elements:
    a.
    b.
    c.
2. Give 4 examples of carbohydrates:
    -
    -
    -
    -
3. What carbohydrate is stored in plants?

DIRECTIONS: Go to the following website on CARBOHYDRATES and answer these questions: http://www.wisc-online.com/objects/index_tj.asp?objid=AP13104

1. What elements are carbohydrates generally composed of?

2. What is the type of sugar found in fruit called?

3. What is the common name for sucrose?

4. Polysaccharides include starch, cellulose, and glycogen. These long, chain-like polymers make ideal storage products due to their _____.

Draw a picture of glucose and deoxyribose below.

DIRECTIONS: Go to the following website on PROTEINS and answer these questions: http://www.chem4kids.com/files/bio_proteins.html

1. What are proteins made up of?

2. What are the four protein structures?

Next: Draw sketches of the four types of protein structures below.

DIRECTIONS: Go to the following website on PROTEINS and answer these questions: http://www.wisc-online.com/objects/index_tj.asp?objid=AP13304

1. Proteins are constructed from approximately 20 _____.

2. A protein molecule is determined by the _____ of amino acids.

3. Why do vegetarians have to make sure they eat a wider variety to make sure they get all of the amino acids they need?

DIRECTIONS: Go to the following website on LIPIDS and answer these questions: http://www.wisc-online.com/objects/index_tj.asp?objid=AP13204

1. Lipids are soluble/insoluble in water. Circle one.

2. What happens during Dehydration Synthesis (hint: it involves chains & a molecule)

3. Saturated fatty acids originate from where?

4. Unsaturated fatty acids originate from where?

5. Why are phospholipids so important to cells?

6. List 3 positive things cholesterol does for the body
   -
   -
   -

Draw pictures of saturated and unsaturated fatty acids below.

DIRECTIONS: Go to the following website on NUCLEIC ACIDS and answer these questions: http://www.chem4kids.com/files/bio_nucleicacids.html

1. The _____ are the building blocks of living organisms.
2. _____ is just one type of **nucleic acid.**
3. List 4 types of nucleic acids (NA's):

Draw a pictures of a nucleotide, the monomers of nucleic acids.

DIRECTIONS: Go to the following website on Protein Synthesis and answer these questions: http://www.wisc-online.com/objects/index_tj.asp?objID=AP1302

1. Why does DNA unwind?

2. After creation, where does the mRNA go? Through what?

3. Why does mRNA bind with a ribosome?

4. What's the name for the end of the tRNA that has a particular sequence of three nucleotides?

5. What does the anticodon match up to when it joins the chain?

6. Now that the "load" of amino acids have been released, the amino acids link up to form _____.

7. What happens to the mRNA when protein production is complete?