First Name: _____ ***Last Name:*** _____ ***Period:*** __

Elements & Macromolecules in Organisms

Most common elements in living things are carbon, hydrogen, nitrogen, and oxygen. These four elements constitute about 95% of your body weight. All compounds can be classified in two broad categories --- organic and inorganic compounds. Organic compounds are made primarily of carbon. Organic compounds also contain hydrogen.

Each small organic molecule can be a unit of a large organic molecule called a macromolecule. There are four classes of macromolecules (carbohydrates, lipids, proteins, and nucleic acids). Carbohydrates and lipids are made of only carbon, hydrogen, and oxygen (CHO). Proteins are made of carbon, hydrogen, oxygen, and nitrogen (CHON). Nucleic acids such as DNA and RNA contain carbon, hydrogen, oxygen, nitrogen, and phosphorus (CHON P).

The body also needs trace amounts of other elements such as calcium, potassium, and sulfur for proper functioning of muscles, nerves, etc. *Color* each of the elements on the next page according to the color listed next to the element's symbol. Then *Color code* the squirrel with the correct proportion of each element's color. Now *color code* the carrot with the same colors as you used on the squirrel.

C 18.5% black

O 65% red

P 1.0% pink

K 0.4% brown

H 9.5% yellow

N 3.3% blue

S 0.3% green

Ca 1.5% purple