Name:_____ Unit:_____ Date:_____ Pd:___

Practice: Organic Compounds

CP A & P

Match the terms in column B with the descriptions in column A. Enter the correct letters in the answer blanks.

Column A

G 1.) Building blocks of carbohydrates

D, E 2.) Building blocks of fats

A 3.) Building blocks of proteins

F 4.) Building blocks of nucleic acids

B, A, G, H 5.) Cellular cytoplasm is primarily composed of this substance

G 6.) The single most important fuel source for body cells

C 7.) Not soluble in water

B, G 8.) Contains C, H, and O in the ratio CH_2O

C 9.) Contain C, H, and O, but have relatively low amounts of oxygen

A 10.) These building block contain N in addition to C, H, and O

F 11.) Contain P in addition to H, O, N, C

C 12.) Used to insulate body and found in all cell membranes

H, C 13.) Primary components of meats and cheeses (yum)

B 14.) Primary component of bread and skittles

H 15.) Primary component of eggs and peanut butter

H 16.) Includes collagen and hemoglobin

C 17.) Class that usually includes cholesterol

Column B

A. Amino acids

B. Carbohydrates

C. Lipids (fats)

D. Fatty acids

E. Glycerol

F. Nucleotides

G. Monosaccharides

H. Proteins

Figure 2.7 shows the molecular structure of DNA, a nucleic acid.

- ◯ Deoxyribose sugar (d-R)
- Phosphate unit (P)
- Adenine (A)
- Cytosine (C)
- Thymine (T)
- Guanine (G)

A. Identify the two unnamed nitrogen bases and insert their correct names and symbols in the two blanks beside the color coding.

B. Complete the identification of the bases on the diagram by inserting the correct symbols in the appropriate spaces on the right side of the diagram.

C. Select different colors and color the coding circles and the corresponding parts of the diagram.

D. Label one d-R sugar unit and one P unit of the "backbones" of the DNA structure by inserting leader lines and labels on the diagram.

E. Circle the associated nucleotide.

F. Answer the following questions by writing your answers in the answer blanks.

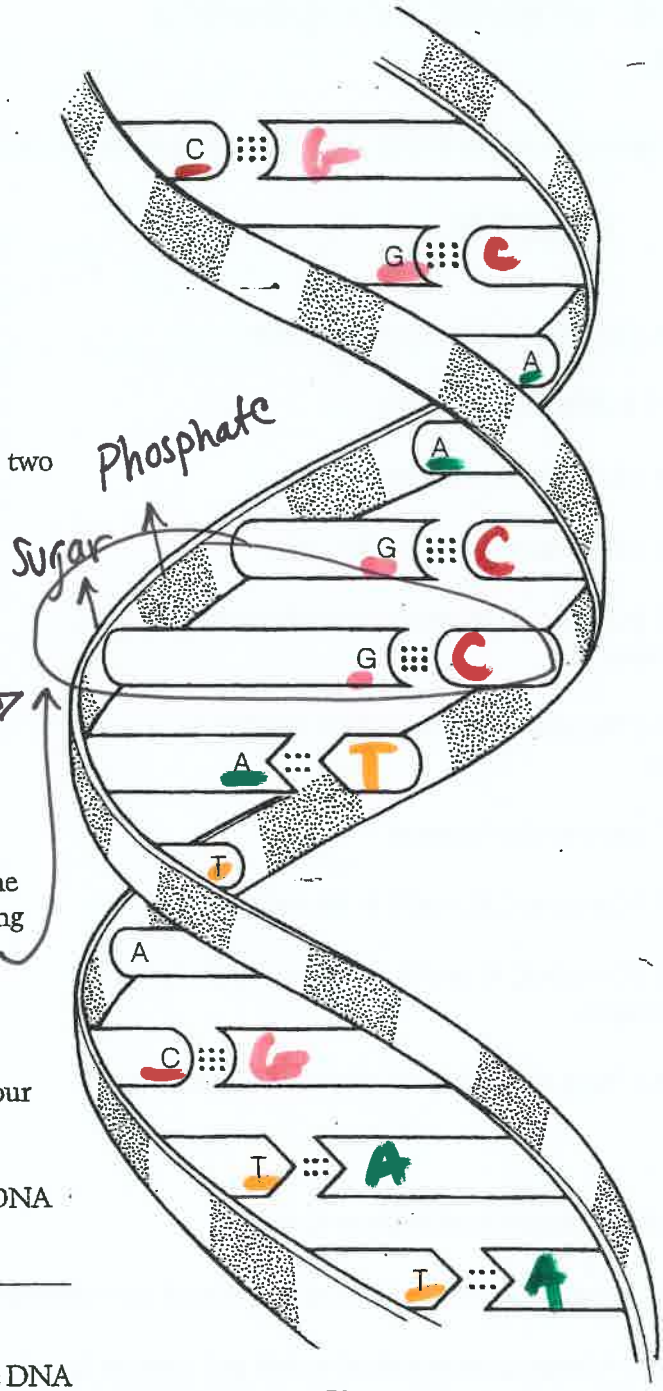

Figure 2.7
Part of a DNA molecule (coiled)

1. Name the bonds that help hold the two DNA strands together. Hydrogen

2. Name the three-dimensional shape of the DNA molecule. Double Helix

3. How many base pairs are present in this segment of a DNA model? 12

4. What is the term that means "base pairing"?
Bonding of Corresponding Bases (AW/T) & (C w/ G)