DNA STRUCTURE

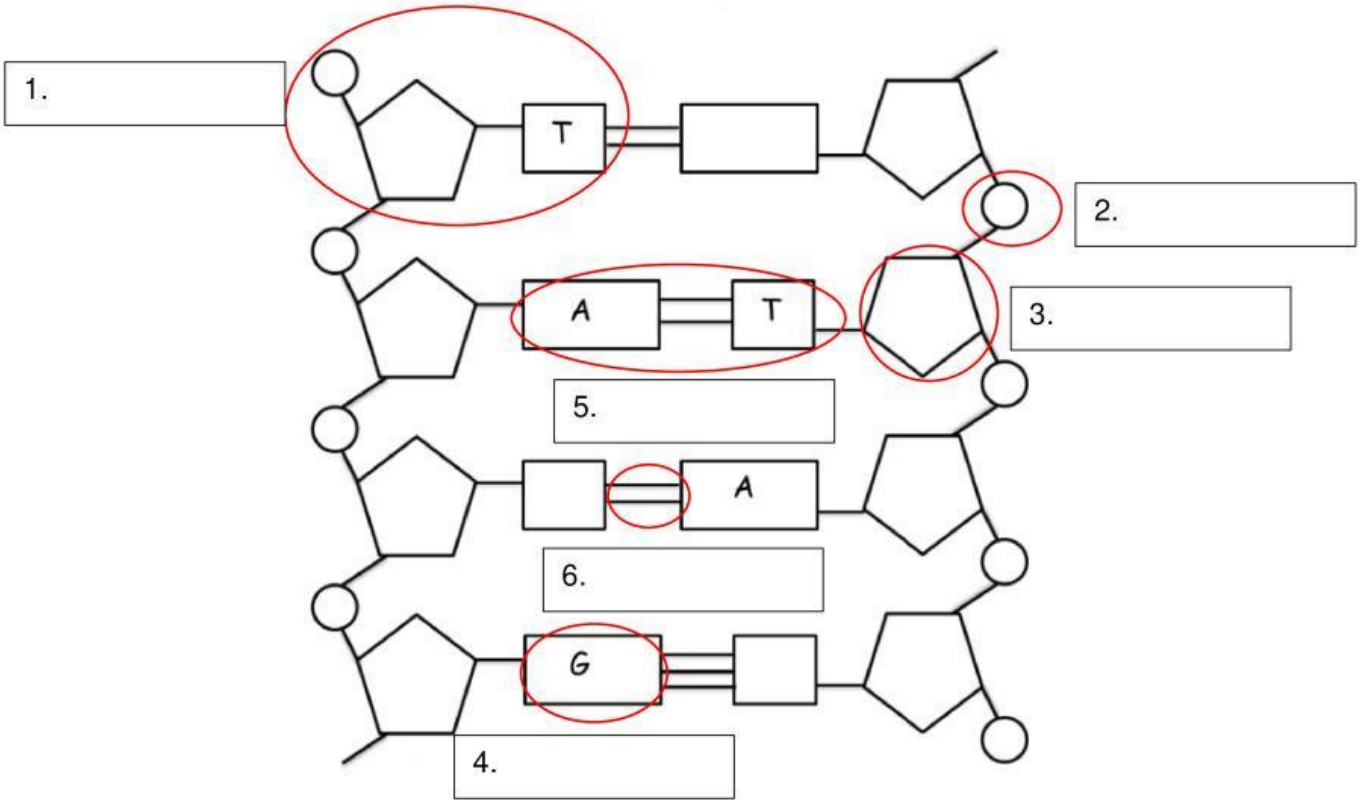
Name _____ Class _____ Date _____

Answer the following questions.

1. Label the structure below with the following words:

Nucleotide Deoxyribose (sugar) Phosphate group

Base pair Hydrogen bond Nitrogenous base



2. Add the missing complementary base pairs to the diagram.

3. Detemine number of each type of nucleotide and number of hydrogen bonds in the DNA segment.

A = [ ] T = [ ] G = [ ] C =

Hydrogen bonds = [ ]

4. The leading strand of a DNA molecule has the following sequence:

5'-CGCATGTAGCGA-3'

Which of the following sequences is complementary to the leading strand shown above?

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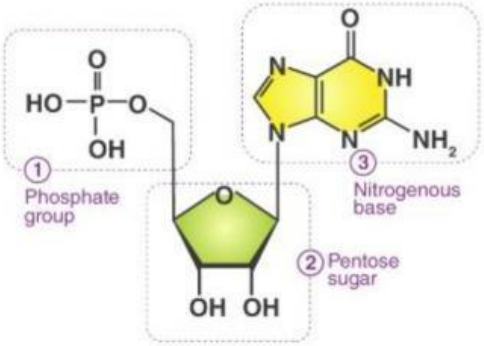
5. A nucleotide consists of:



A. phosphate group, nitrogenous base, fatty acid

B. phosphate group, sugar molecule, amino acid

C. phosphate group, sugar molecule, nitrogenous base

D. nitrogenous base, sugar molecule, phosphate group

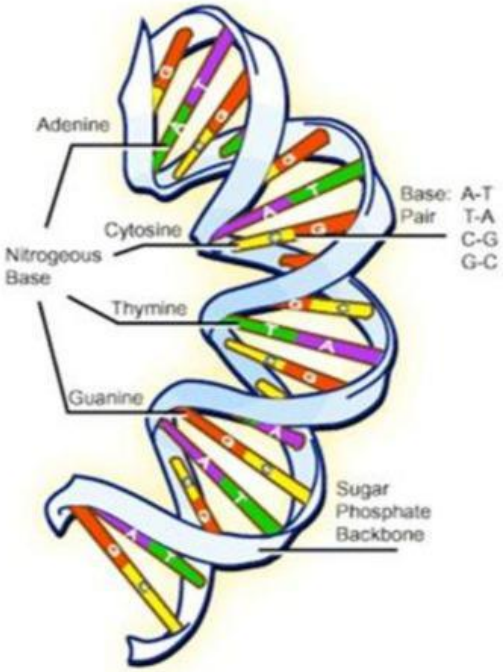
6. The backbone of DNA is made of:

A. base pairs

B. sugars and phosphates

C. only sugars

D. only phosphates



7. If a DNA molecule has 30% Guanine bases, how many Cytosine bases will it have?

A. 30% B. 25%

C. 20% D. 10%

8. The two strands of DNA are held together with

A. covalent bonds B. hydrogen bonds

9. Adenine pairs with

A. Thymine B. Thyme

C. Guanine D. Glutamine

10. Which of the following best describes the shape of a DNA molecule?

A. double helix B. contains ribose C. made of amino acids D. contains Uracil

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