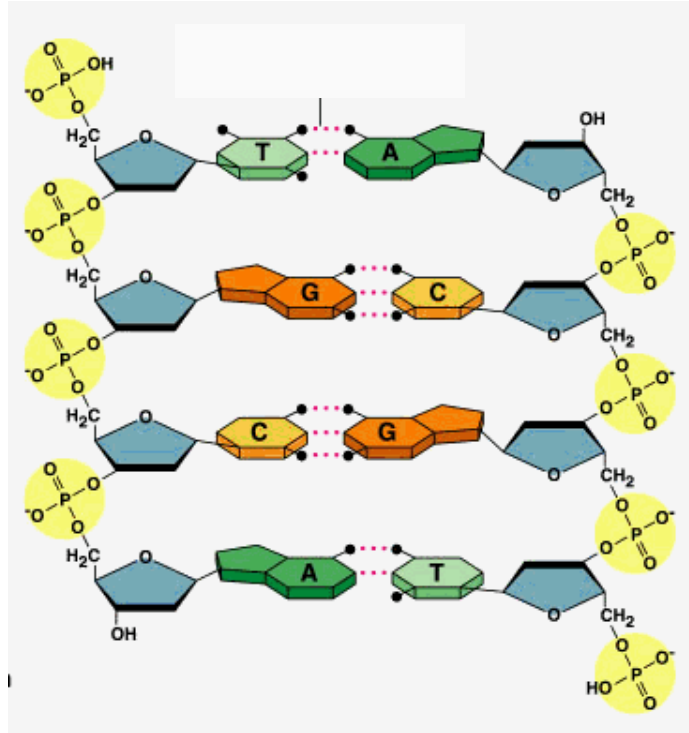


Name: _____ Period: _____

4.1 DNA Structure Review

1. Label the structures in the diagram below:

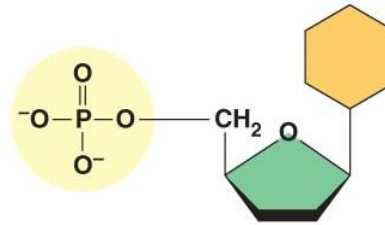


Compare and contrast the following word pairs:

2. Purine and Pyrimidine
3. Nucleotide and Nitrogen Base
4. Adenine and Cytosine
5. Backbone and Base Pair (think about bonding!)

Short Answer:

6. Name the structure to the right.
Label the three components.



7. Using letters to symbolize the nitrogen bases, indicate which bases always pair together. What kind of bonds hold the bases together across the DNA ladder? Why would it be important to use this kind of bond compared to other bonds (like covalent)?
8. If 20% of the nucleotides in a DNA molecule strand are Adenine, what percentage of nucleotides in a DNA molecule strand is going to be Thymine?
9. Given the information above about Adenine and Thymine, what percentage of nucleotides in a DNA molecule is going to be Cytosine? Guanine?
10. Given Chargraff's Rule, if you have a DNA molecule strand that has the nitrogen bases A T C G G T C A on one side of the ladder, what will the order of the nitrogen bases on the OPPOSITE side of the ladder?