



DNA Review Worksheet

1. What does DNA stand for? deoxyribonucleic acid
2. Where in a cell is DNA found? nucleus of eukaryotic cells or cytoplasm of prokaryotes
3. What is the difference between chromatin and chromosomes?

both diffn
structures of
DNA

DNA
unwound


DNA
tightly wound


4. How many PAIRS of chromosomes does a human have in their skin cells? 23 pairs
5. A segment of DNA that codes for a protein is called a Gene.
6. What are the three parts of a DNA nucleotide? Label the three parts of a DNA nucleotide

- a. deoxyribose sugar
- b. phosphate group
- c. nitrogen base

7. What 4 bases make up DNA molecules? adenine, thymine, cytosine, guanine
8. Scientifically, describe the shape of a DNA molecule. double helix
9. What type of bond holds together the nitrogen bases? hydrogen bond

- a. How many hydrogen bonds are found between A-T? 2 C-G? 3

10. What scientists are credited with the "base-pairing" rules?

- a. ~~Watson~~ Chargaff's rule

11. What are the base pairing rules?

A=T ; G=C

12. Write the complementary strand to this DNA molecule on the line.

5' GATCCATGAGTTAC 3'
3' CTAGGTAATCAATG 5'

13. What is the importance of the order of base pairs in a DNA molecule? (Hint: what might happen if the order of the base pairs were changed?)

order of bases determine gene

14. When does DNA replicate? before new cell is made

15. The order of nitrogen bases (A,T,C,G) determines the type of protein that is assembled.

