## 5.4 The DNA Connection

Date _____

Last Name _____ First_____ period ___

1. Describe the parts of the genetic code.

   a. What is the main function of genes ? _____
   _____

   b. What are the traits of an organism the result of? _____

   c. Where are genes found? _____

   d. What are chromosomes made of? _____

2. Describe Proteins.

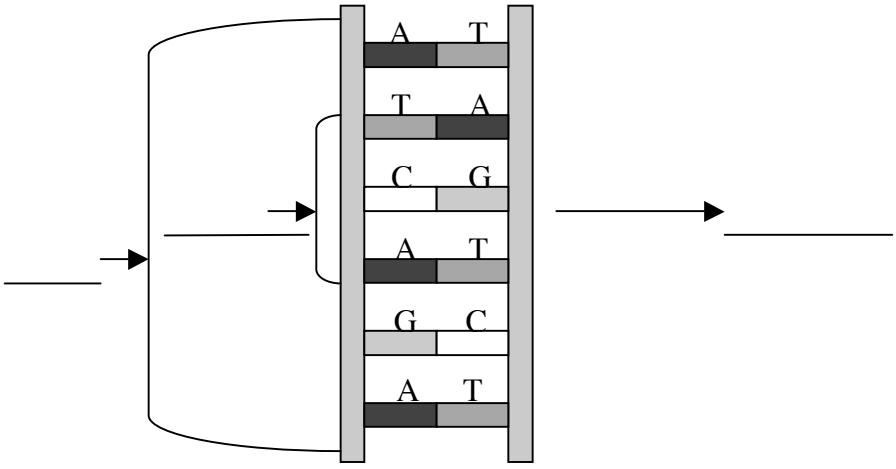
   a. What class of molecules are proteins? _____

   b. What are proteins made of? _____

   c. How many kinds of amino acids are there? _____

   d. What determines the type of protein? _____

3. Describe the relationship between DNA, genes, and Proteins by labeling the drawings




4. What determines the type of protein? _____

5. Cells make protein outside the nucleus. DNA inside the nucleus contains the instructions for the protein.

   a. So what must happen to the genetic message inside of the nucleus before the ribosomes in the cytoplasm are able to produce the protein outside of the nucleus?

      _____

   b. What caries the genetic message from the nucleus to the cytoplasm? _____

6. Interpret the RNA vs DNA diagram.

   a. What are three differences between RNA and DNA ?

      1. _____
      2. _____
      3. _____

7. What are two kinds of RNA?

   a. _____RNA

   b. _____RNA

   c. What is the role of messenger RNA ? _____
      _____

   d. What is the role of transfer RNA ? _____

      _____

8. What are two steps in the formation of RNA ?

   a. _____

   b. Free _____ _____ attach to the exposed _____ and form a new strand of _____ _____

9. After RNA unzips from the DNA, where does it go? _____

   _____

10. How does transfer RNA know what amino acid to pick up ? _____

11. What do the transfer RNAs do with the amino acids they pick up ? _____
    _____

12. Your turn, Write a summary paragraph explaining how proteins are made use the summary facts shown on slide 12 to form your sentences.