Name: _____ Period: _____ Date: _____

Coloring DNA

Directions: Color the images according to the instructions and then answer the following questions.

Color all the phosphates pink (one is labeled with a "p").

Color all the deoxyriboses blue (one is labeled with a "D").

Color the thymines orange.

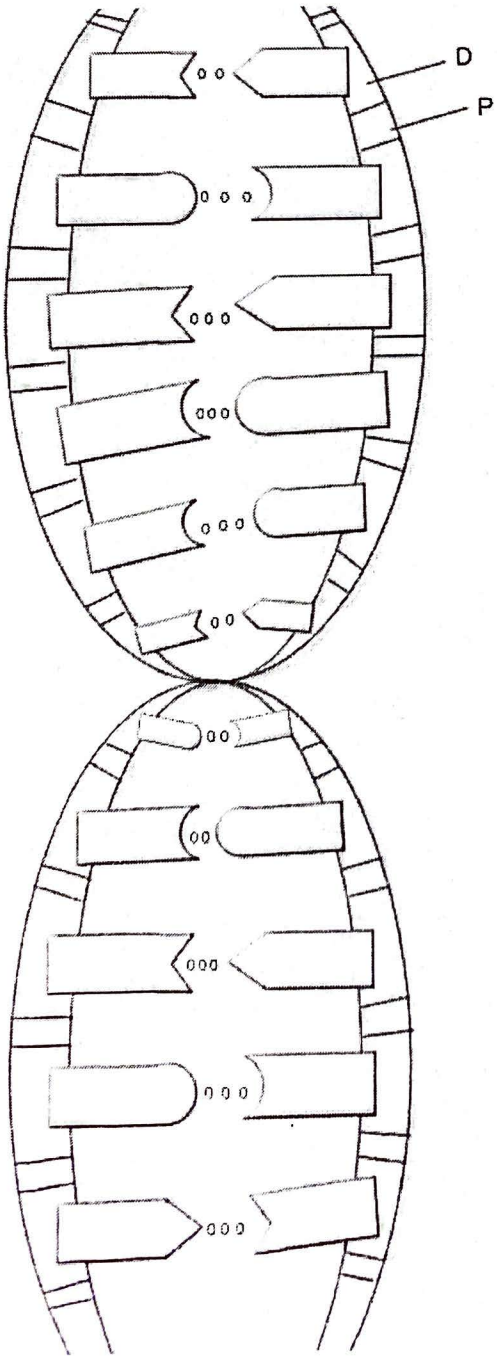
Color the adenines green.

Color the guanines purple.

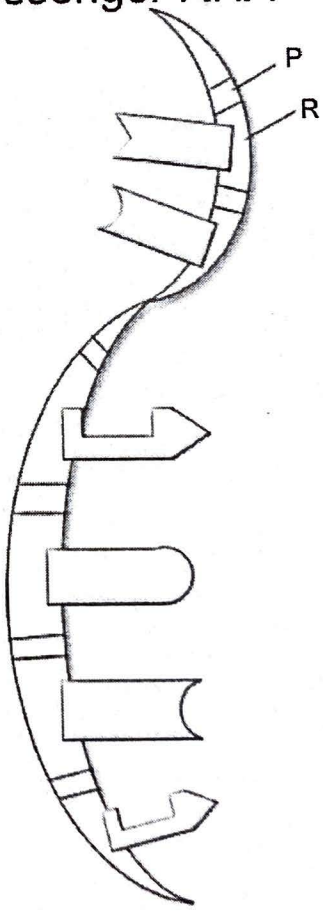
Color the cytosines yellow.

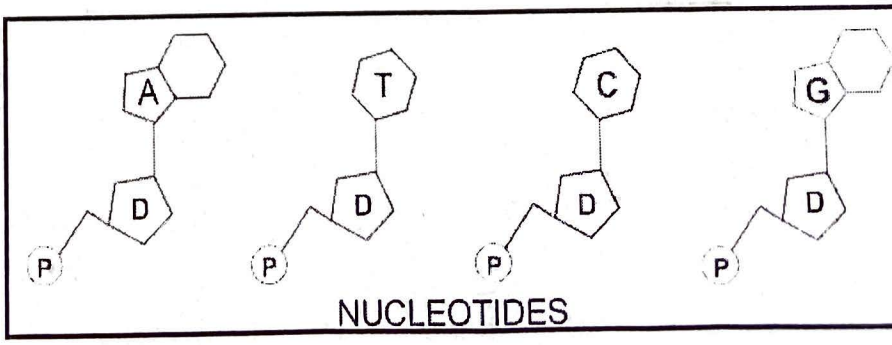
Color the hydrogen bonds grey.

Color the mRNA as you did the DNA, except: Color the ribose a DARKER BLUE, and the uracil brown.



Messenger RNA





1. Write the entire name of DNA.

2. What is a gene?

3. Where in the cell are chromosomes located?

4. DNA can be found in what two organelles?

5. What two scientists established the structure of DNA?

6. What is the shape of DNA?

7. What are the sides of the DNA ladder made of?

8. What are the "rungs" of the DNA ladder made of?

9. What sugar is found in DNA? _____ In RNA? _____

10. How do the bases bond together? A bonds with _____ G bonds with _____

11. The two purines in DNA are

12. DNA is made of repeating units called

13. Why is RNA necessary to act as a messenger? Why can't the code be taken directly from the DNA?

14. Proteins are made where in the cell?

15. How do some cells become brain cells and others become skin cells, when the DNA in ALL the cells is exactly the same. In other words, if the instructions are exactly the same, how does one cell become a brain cell and another a skin cell?

16. Why is DNA called the "Blueprint of Life"?