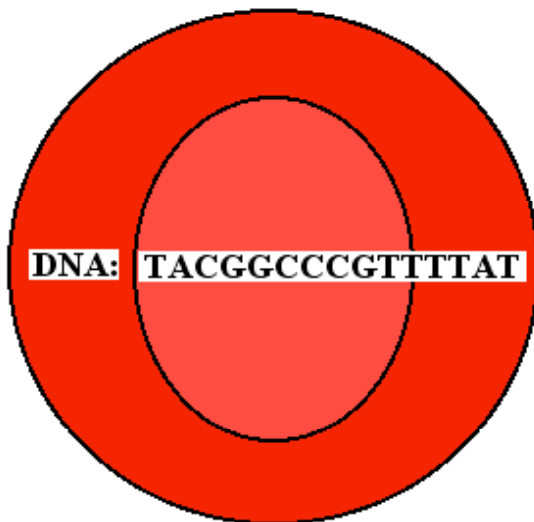


Name \_\_\_\_\_ Date \_\_\_\_\_

***Blood Type (Multiple Alleles)***

Directions: Below find the pictures of 2 red blood cells; one was inherited from your father and the other from your mother.

- ❖ Using your knowledge of protein synthesis (Codon chart is needed) figure out each gene for the blood cells.
- ❖ Write in the correct m-RNA and
- ❖ Proper amino acid sequence in the area next to each blood cell.
- ❖ Then circle the correct gene for each cell.
- ❖ Answer the questions that follow.
- ❖ A gene: Meth, Proline, Glycine, Lysine, Stop
- ❖ B gene: Meth, Glycine, Phenylalanine, Phenylalanine, Stop
- ❖ O gene: Meth, Arginine, Lysine, Leucine Stop

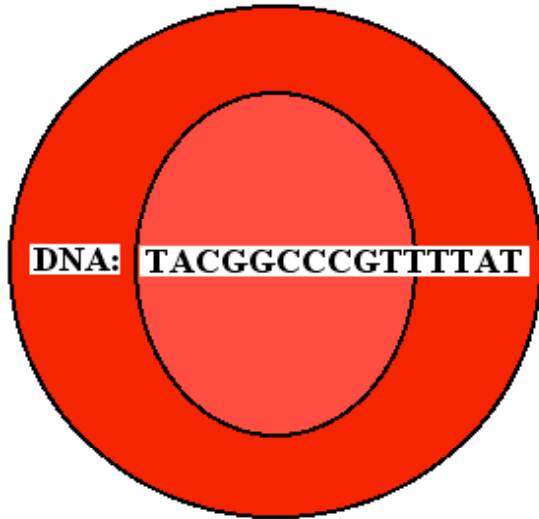


**BLOOD TYPE:**

A  
B  
O

**M-RNA**

**AMINO ACIDS:**



**BLOOD TYPE:**

- A
- B
- O

**M-RNA**

**AMINO ACIDS:**

Questions:

1. What is the blood type of the person? \_\_\_\_\_
2. Is stop an amino acid? \_\_\_\_\_
3. What would happen if there were not stop codons in the m-RNA?  
\_\_\_\_\_
4. How many amino acids are there for each gene? \_\_\_\_\_
5. What makes each of your genes different from the other?  
\_\_\_\_\_
6. What is the function of the t-RNA? \_\_\_\_\_
7. What is the function of the Meth amino acid? \_\_\_\_\_
8. What is a mutation?  
\_\_\_\_\_
9. Could someone completely change his or her blood type by having their blood replaced with a different blood type? \_\_\_\_\_
10. Explain.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_