Name: _____

Protein Synthesis & Amino Acid

Period: _____ Date: _____

1. Fill in the complimentary DNA strand using DNA base paring rules.
2. Fill in the correct mRNA bases by transcribing the bottom DNA code.
3. Translate the **mRNA codons** and find the correct **amino acid** using the Codon Circular Table.
4. Write in the amino acid and the correct ant-codon, the tRNA molecule.
5. Then answer the questions about protein synthesis below the amino acids.

Original DNA	Complementary DNA	Codon mRNA	Anti-Codon tRNA	Amino Acid
A	T	A	U	Met., Methionine The start codon
T	A	U	A	
G	C	G	C	
G	C	G	C	Valine
T	A	U	A	
A	T	A	U	
G	C	G	C	Alanine
C	G	C	G	
T	A	U	A	
A	T	A	U	Asparagine
A	T	A	U	
C	G	C	G	
C	G	C	G	Leucine
T	A	U	A	
T	A	U	A	

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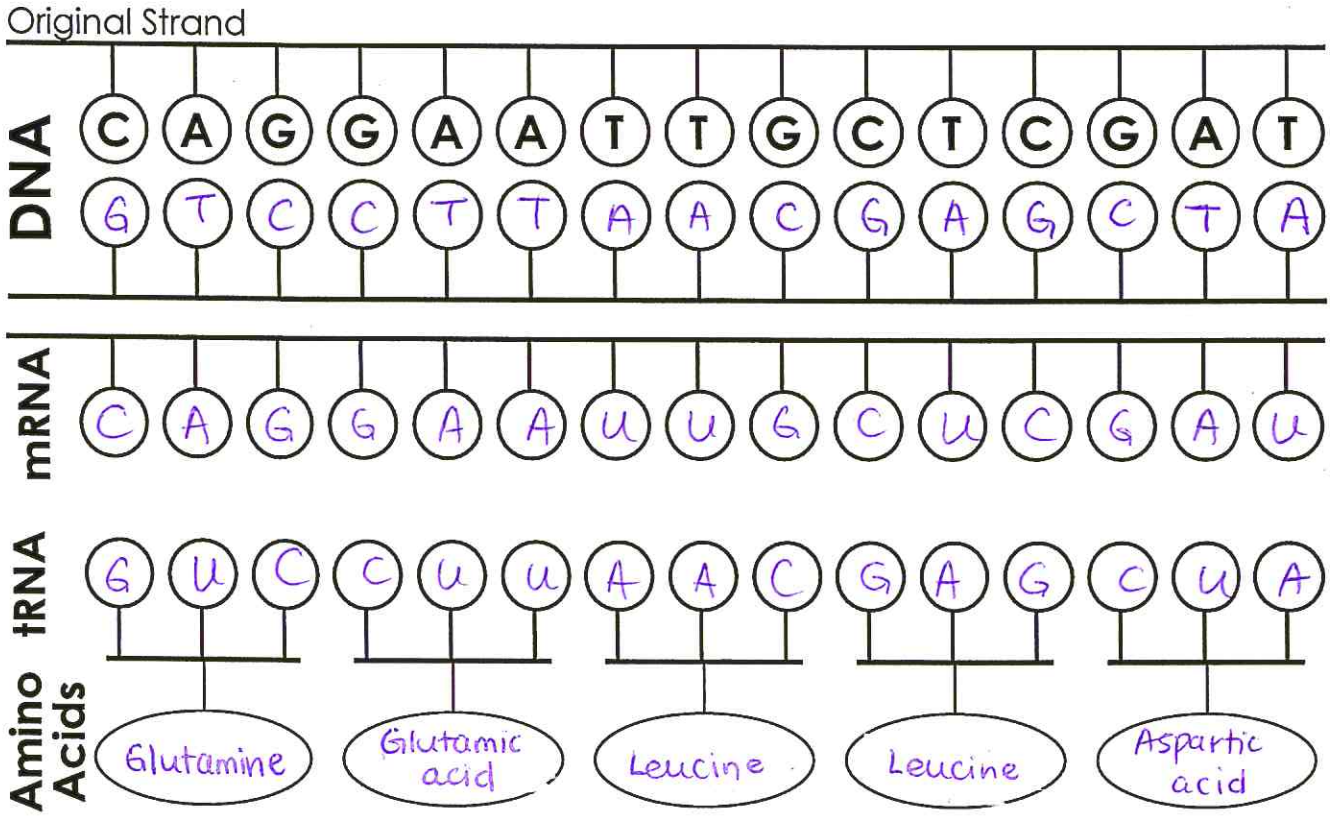
Here's another way to look at the same process. **Fill in all the circles and ovals.**



1. Where is mRNA synthesized, transcription or translation? nucleus, translation

2. Does mRNA have codons or anti-codons? codons

3. How many codons equal one amino acid, 1 or 3? 1

4. Does tRNA bring amino acid to the nucleus or ribosomes? ribosomes

5. Is a polypeptide a sequence of proteins or amino acids? amino acids

6. Does tRNA have codons or anti-codons? anti-codons

7. Does tRNA transfer amino acids during transcription or translation? translation

8. Are ribosomes the site where translations or transcription takes place? translation