

Protein Synthesis Worksheet #5

Directions:

- 1st Fill in the complimentary DNA strand using DNA base pairing rules.
- 2nd Fill in the correct mRNA bases by transcribing the bottom DNA code.
- 3rd Translate the mRNA codons and find the correct amino acid using the Codon Table
- 4th Write in the amino acid and the correct anti-codon the tRNA molecule.
- 5th The answer to the questions about protein synthesis below the amino acids.

A-T
C-G

1. **DNA template strand**

A	T	G	G	T	A	G	C	T	A	A	C	C	T	T
T	A	C	C	A	T	C	G	A	T	T	G	G	A	A

2. **mRNA codons**

A	U	G	G	U	A	G	C	U	A	A	C	C	U	U
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3. **tRNA anticodons**

U	A	C	C	A	U	C	G	A	U	U	G	G	A	A
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4. **Amino Acids** Use abbreviation

start Met	Val	Ala	Asn	Leu
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A-U
C-G
Use tRNA anticodon chart

5. mRNA is synthesized in translation or transcription? Part 1
6. mRNA has codons or anti-codons?

Use tRNA anticodon chart

7. **DNA template strand**

C	A	G	G	A	A	T	T	G	C	T	C	G	A	T
G	T	C	C	T	T	A	A	C	G	A	G	C	T	A

8. **mRNA codons**

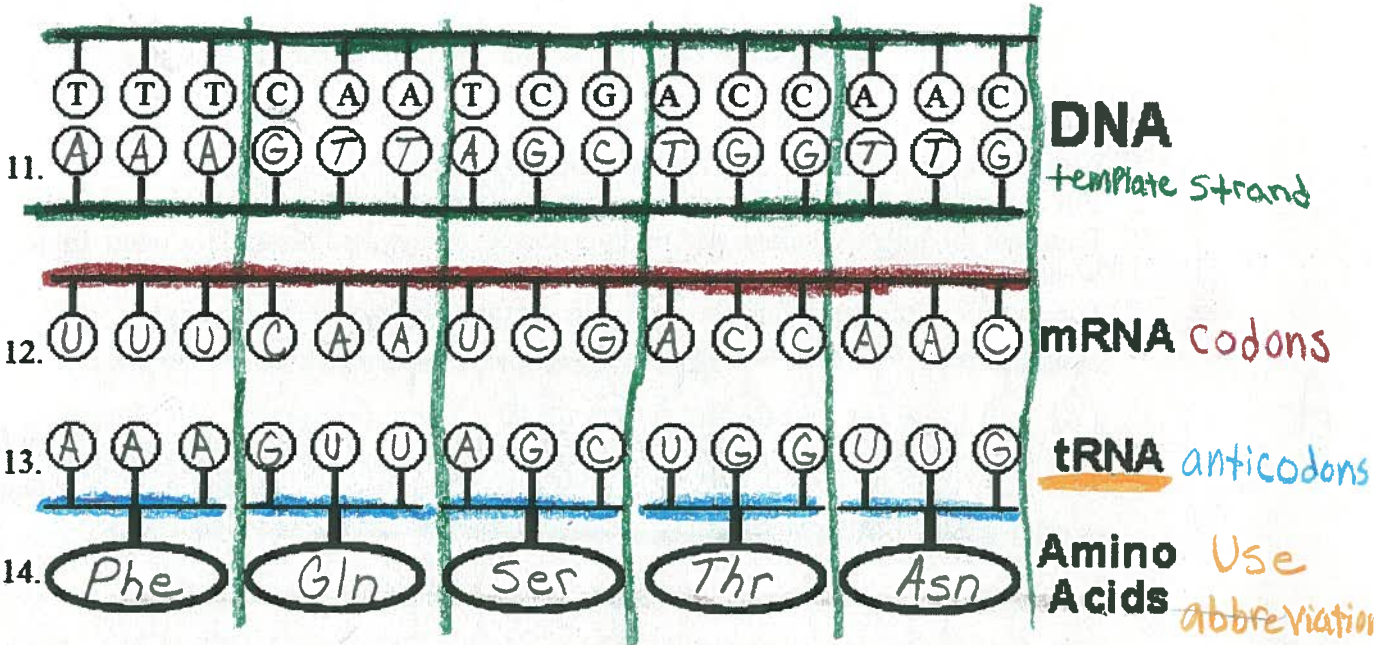
C	A	G	G	A	A	U	U	G	C	U	C	G	A	U
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9. **tRNA anticodons**

G	U	C	C	U	U	A	A	C	G	A	G	C	U	A
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10. **Amino Acids** Use abbreviations

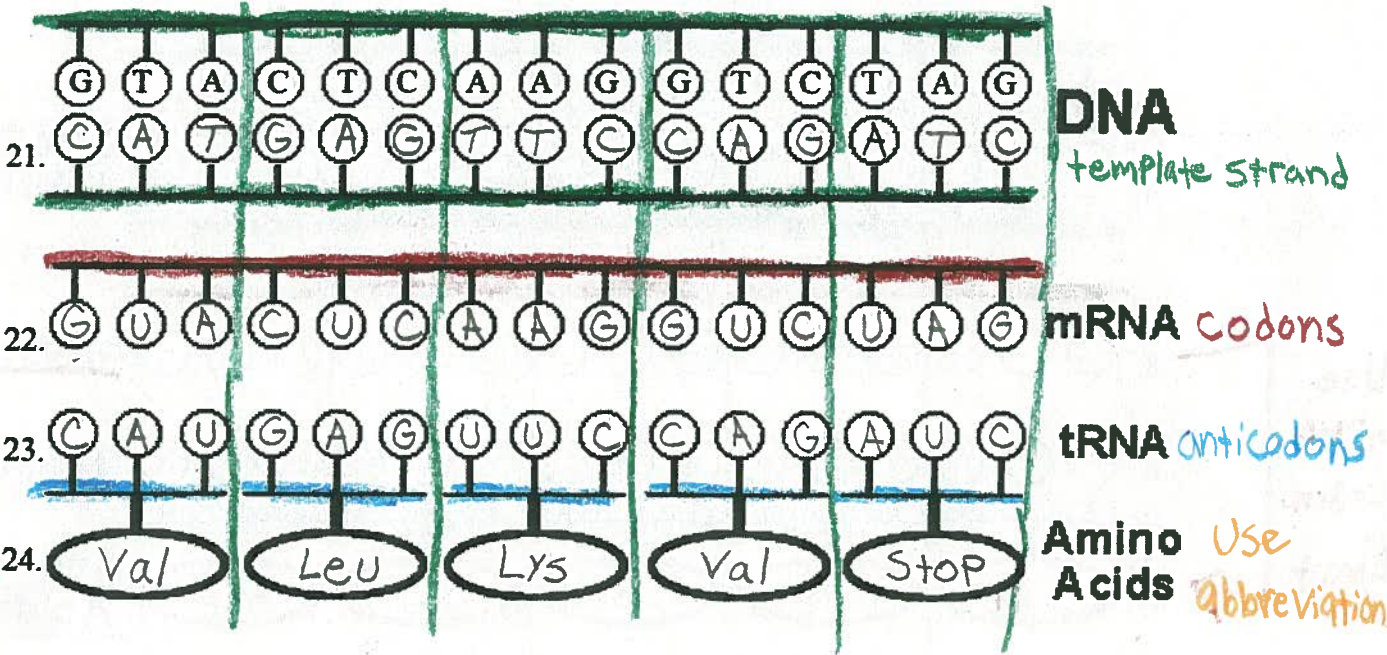
Gln	Glu	Leu	Leu	Asp
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Use RNA codon chart

- 15. 1 or 3 codons equal one amino acid?
- 16. tRNA brings amino acids to the nucleus or ribosome?
- 17. A polypeptide is a sequence of proteins or amino acids?
- 18. tRNA has codons or anti-codons?
- 19. tRNA transfers amino acids during translation or transcription?
- 20. Ribosomes are the site where translation or transcription takes place?

Part 2



Use RNA codon chart