Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Translation Study Guide

1. The process of **translation** takes the information contained in \_\_\_\_\_\_\_\_ and converts it into \_\_\_\_\_\_\_\_.

2. \_\_\_\_\_\_\_\_\_\_\_\_ must be spliced out of the original mRNA. Exons are the pieces of \_\_\_\_\_\_\_\_\_\_\_ that contains information for protein.

3. RNA splicing happens in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

4. Why do prokaryotes not do RNA editing?

5. Diagram how mRNA is spliced below, label the **introns, exons,** and **spliceosome.**

6. Sketch each of the following and give a brief description of their role in translation:

a. mRNA:

b. ribosome:

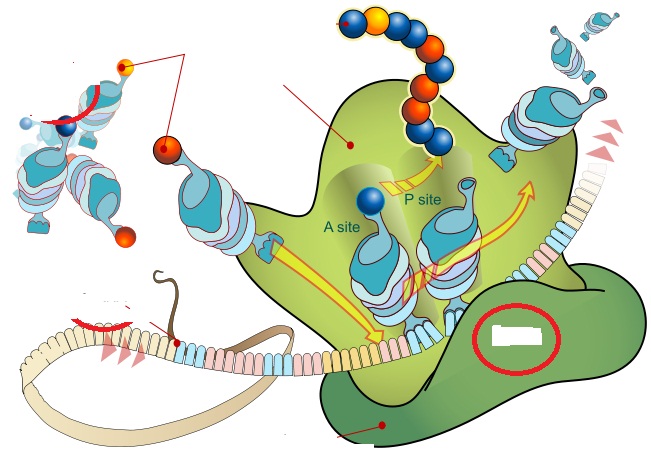
c. tRNA:

d. codon:

e. anticodon:

f. amino acid:

7. Label the following on the diagram: **ribosome, rRNA, tRNA, mRNA, amino acid, codon, anticodon, forming polypeptide (protein).**

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8. Translate the following mRNA:

AUG GCU CCC UGU GAG AAA CAG UGA

9. Why can so many proteins be made by the 20 amino acids?

10. What are two questions you have after watching the presentation?

a.

b.