Protein Synthesis Objectives

1. DNA and RNA carry genetic information. How is DNA replicated (semiconservative process; include enzymes involved)? How is RNA produced from DNA (transcription; include enzymes involved, post transcription modifications, location)? How are proteins made from the RNA genetic code (translation; codons – amino acid link/codon chart, initiation – elongation - termination)? **This should be long, and detailed**
2. Describe what is meant by “central dogma”.
3. Describe the structure of a ribosome and how it aids in protein synthesis.
4. Distinguish among mRNA, tRNA and rRNA in terms of location, composition, and function.
5. Describe the structure of a ribosome and explain how this structure relates to its function.
6. Define codon and list the three stop and one start codons.
7. Explain how the genetic code is redundant and universal.
8. Explain why base-pair insertions or deletions have a greater effect than base-pair substitutions in mutagenesis.