**Test Review for Protein Synthesis (Chapter 12)**

 List the components that make up a nucleotide found in DNA.

 Location of DNA in Eukaryotes VS Prokaryotes

 What happens to the DNA during mitosis? Name the process where DNA is copied during mitosis.

What happens to the nucleosome?

 What is the end result of DNA replication? DNA Polymerase.

 Similarities and differences between RNA and DNA, types of RNA and their functions, how is RNA made?

 Which type of RNA is a blueprint of DNA?

 Function and product of transcription, location of transcription. RNA Polymerase.

How many bases code for an amino acid, can an amino acid be coded for by more than one codon? Why?

 What is translation? Where does translation occur?

 Genes contain instructions for assembling what?

 Types of mutations and characteristics: point mutation, substation, insertion, deletion.

 Type of mutation that is not a gene mutation. What is a frameshift mutation?

What is a promoter? What makes up a promoter? Function of a promoter. What is an intron?

 During translation, the type of amino acid that is added to the growing polypeptide depends on what?

 Watson and Crick determined that heredity was in what part of the DNA molecule?

 Enzyme responsible for holding the DNA molecule while it’s copied and proof reads the DNA.

Describes the eukaryotic chromosome.

 What is the function of histones? What would happen if there were no histones with the DNA?

Why is the order of the nitrogen bases so important? What might be the result if the order is changed?

Calculate how many base pairs would be needed to make a protein.

