DNA Study Guide

This study guide is to help you review for the test. Test material is subject to anything covered in class, the book and labs.

**Vocabulary:**

DNA

RNA

Genes

Nitrogen Bases

Chromosomes

Griffith

Avery

Hershey and Chase

Purine Bases

Pyrimidine Bases

Chargaff

X-ray Diffraction

Rosalind Franklin

Watson and Crick

DNA Replication

DNA helicase

DNA polymerase

Leading & lagging Strand

Okazaki fragments

DNA ligase

Central Dogma

Transcription

RNA polymerase

Translation

Amino acid

Codon

Mutation

Genetic engineering

Restriction enzymes & recombinant DNA

Genome

The Human Genome Project

Gel Electrophoresis

PCR

**Concepts:**

Be able to explain the structure of DNA & RNA (main components and nitrogen base pairs).

Be able to identify key discoveries made throughout history.

Be able to explain why DNA replication is semiconservative?

Be able to explain DNA replication and the key enzymes involved.

Be able to explain the difference in eukaryotic DNA replication and prokaryotic DNA replication.

Be able to list the three types of RNA.

Be able to explain how genes are related to enzymes

Be able to give three specific examples of mutations from the three main types.

Be able to identify causes of mutations.

Be able to explain the difference between body & sex cell mutations

Be able to give uses of different DNA technology.

Be able to transcribe and translate DNA to amino acids.