Discuss the structure of DNA using the following words – Nucleotides, chromosomes, chromatin, histones, nucleosomes, S phase, Mitosis

List and Describe the functions of the 4 Enzymes associated with DNA replication

1.

2.

3.

4.

What did each scientist do?

Griffith-

Watson and Crick-

Franklin-

Avery-

Hershey – Chase-

Write the complementary DNA strand for the following sequence: A T C G C C T G A G G C A A T

Now Transcribe the strand into mRNA:

How many nucleotides are in each codon? \_\_\_\_\_\_\_\_\_

Each codon codes for an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is the base unit of Proteins? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Of Amino Acids? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What are the differences between RNA and DNA?

What are the three types of RNA and what is each used for?
 1.

2.

3.

What is a mutation? What is the difference between a frameshift mutation and a point mutation?

How might a DNA mutation not cause any major impact on the resulting protein?

What are the three parts of a DNA nucleotide?

What is a gene?

What is the Central Dogma of Genetics?

What is the difference between DNA replication, DNA transcription, and translation?

What type of bond holds amino acids together?

What type of bond holds the two DNA strands together?

Describe the major steps of DNA replication:

What is the difference between the leading strand and lagging strand?

What are introns and exons? How are exons used?

Which type of RNA is associated with an “anticodon”