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

**DNA & RNA Study Guide**

What does DNA stand for?

What makes up a nucleotide?

What is the shape of a DNA strand?

What are the four bases of DNA? What are the base pairing rules?

Give the compliment strand for the following **DNA** strand:

A T C T A G T A C T A G

What are three differences & three similarities between RNA & DNA?

What is a gene?

What are the three types of RNA and their functions?

|  |  |  |  |
| --- | --- | --- | --- |
|  | DNA Replication | Transcription | Translation |
| What is made? |  |  |  |
| What molecules are used? |  |  |  |
| Where in the cell does it take place? |  |  |  |
| What are the base pairing rules? |  |  |  |

Fill in the table:

Transcribe the following DNA strand into an **mRNA** strand:

 A T C T A G T A C T A G

What is a codon and an anticodon and where can they be found?



What are the two major types of mutations?

Be able to use the Codon Wheel to create a protein by

determining what amino acid is being coded for.

Example: mRNA: AUGCAGGCCGGAUGA