1. **Basic Information**

* Nucleus: is the \_\_\_\_brain\_\_\_ of the cell
* Chromosomes: composed of \_\_\_nucleotides\_\_\_\_, made of \_\_\_\_phosphates\_\_\_ and \_\_sugar\_\_
* Genes: \_physical\_\_ characteristics, found on \_\_\_\_chromosomes\_\_
* DNA: \_\_\_\_deoxyribonucleic acid\_\_\_
* Bases: \_\_\_Adenine\_\_\_\_, \_\_\_\_Thymine\_\_\_\_, \_\_\_Guanine\_\_\_\_\_, \_\_\_\_Cytosine\_\_\_
* Base Pairing:
  + - \_\_\_\_\_\_Adenine\_\_\_\_\_\_ with \_\_\_\_\_\_\_\_\_\_Thymine\_\_\_\_\_\_\_\_
    - \_\_\_\_\_Guanine\_\_\_\_\_\_\_\_\_ with \_\_\_\_\_\_Cytosine\_\_\_\_\_\_
* Rosalind Franklin: figured out DNA has a \_\_\_spiral shape\_\_\_
* Watson & Crick: built the first \_\_\_\_\_DNA Model\_\_\_\_\_, won the \_\_\_Nobel Prize\_\_\_\_\_
* DNA Structure: DNA looks like a \_long twisted ladder\_\_\_\_, known as a \_\_double helix\_\_

1. **DNA Replication**

* DNA \_\_\_\_unzips\_\_, complementary bases add to each side of the \_\_\_\_ladder\_\_\_\_\_\_
* A new DNA strand: half of the molecule is \_\_\_\_\_old\_\_\_\_\_\_, half of the molecule is \_\_\_new\_\_\_

1. **DNA vs. RNA**

* DNA is \_\_\_deoxyribonucleic acid\_\_\_\_, RNA is \_\_\_ribonucleic acid\_\_\_
* DNA bases: \_\_\_A, G, C, T\_\_\_, RNA Bases: \_\_\_\_A, G, C, uracil\_\_\_

1. **Reading RNA**

* RNA is read \_\_\_three bases\_\_\_ at a time, each three letter makes up a different \_\_\_amino acid\_\_
* Amino Acids: When amino acids are put together they make \_\_\_proteins\_\_\_
* \_DNA\_ 🡪 \_\_\_RNA\_\_ 🡪 \_amino acids\_ 🡪 \_\_\_proteins\_\_