Assignment Number:\_\_\_\_\_\_\_

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

**Genetics Basics (Heredity)**

**Important Terms (that can get very confusing)**

**DNA**- is made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and is the ‘\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_’ for an organism, it contains all the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that determines \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ characteristics

**Trait** – the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the information found within a \_\_\_\_\_\_\_\_\_\_\_

**Gene** – \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of nucleotides found within the \_\_\_\_\_\_\_\_\_\_\_ that encodes for a given \_\_\_\_\_\_\_\_\_\_\_\_\_ (ex. Hair color, blood type, etc)

**Alleles** – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ forms of the \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ such as brown eyes vs. blue eyes

**Genetic Variation** – different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ between members of the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, essential to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a population

**Chromosomes** – the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of DNA made up of \_\_\_\_\_\_\_\_\_\_\_\_

**Homologous Chromosomes** – chromosomes that have the \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ in the \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ “pairs”

*Each organism gets \_\_\_\_\_\_ chromosome from their \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_ from their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to make up the pair*

**Karyotype** – is an organized profile of a person’s chromosomes. Chromosomes are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_\_\_\_\_ (from largest to smallest, except for sex chromosomes which are always placed last). This genetic picture makes it easy to recognize chromosomal mutation.

* Female sex chromosomes are \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_
* Male sex chromosomes are \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_