Genetic Notes: NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_ Basic unit of genetic information. Genes determine the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_characters.

\_\_\_\_\_\_\_\_\_\_ The collection of \_\_\_\_\_\_\_\_\_\_\_\_\_information.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Storage units of \_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_ A Nucleic \_\_\_\_\_\_\_\_\_\_ that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are made of and that is found in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_of every \_\_\_\_\_\_\_\_\_\_\_of all \_\_\_\_\_\_\_\_\_\_\_\_\_things.

HUMAN GENOME

For humans there are 2 \_\_\_\_\_\_chromosomes \_\_\_\_ and \_\_\_\_\_. For males the 23rd pair contains one \_\_\_\_\_and one \_\_\_\_\_\_\_. For females the 23rd pair contains 2 \_\_\_\_\_\_.

 Who then determines the sex of the child? The mom or dad?\_\_\_\_\_\_\_\_\_\_\_\_\_Why?

Locus= The location of a gene/marker on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Allele=A \_\_\_\_\_\_\_\_\_\_\_\_\_\_ form that a \_\_\_\_\_\_\_\_\_\_\_ may have for a specific trait at a particular \_\_\_\_\_\_\_\_\_\_\_.

Dominant= A dominant allele means that \_\_\_\_ trait \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or masks another form of the trait.

A ***dominant*** allele is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ even if it is paired with a recessive allele.

A recessive allele means that the trait is \_\_\_\_\_\_\_\_\_\_\_\_\_or masked if the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form of the trait is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

A ***recessive*** allele is only \_\_\_\_\_\_\_\_\_\_\_\_\_ when paired with another \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_allele.

Demonstrate the different ways dominant and recessive alleles can show up. Copy this slide.

An individual’s Genotype would include \_\_\_\_\_\_ genes. One from the \_\_\_\_\_\_\_\_\_\_ and the other from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. You would choose the letters you are going to use by taking the first letter of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_gene.

The Phenotype would be the expression or how that trait \_\_\_\_\_\_\_\_\_\_\_\_\_ or shows up. For example, hair color, weight or the presence or absence of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**What is homozygous?**

Both \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are the \_\_\_\_\_\_\_\_\_\_\_.

When offspring inherit \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_genes, they are said to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

When offspring inherit \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ genes, they are said to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**What is heterozygous?**

When alleles occur in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ forms.

When offspring inherit \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_gene and \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gene, they are said to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Since the dominant gene will be expressed (shown) they are said to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**What is Co-Dominance?**

When an organism has \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_alleles for a gene that does not follow the dominant/recessive pattern.

The organism shows a trait that is a \_\_\_\_\_\_\_\_\_\_ of the traits represented by the \_\_\_\_\_\_\_ alleles.

Also called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Dominance.

For example: The gene for the color of some flowers has \_\_\_\_\_\_ allele for red and one for white. Then \_\_\_\_\_\_\_\_\_alleles are present, neither is \_\_\_\_\_\_\_\_\_\_\_\_, and the flower color is PINK!

**WHAT IS A PUNNETT SQUARE?**

A tool to predict the probability of certain traits in offspring that shows the \_\_\_\_\_\_\_\_\_\_ways alleles can combine

A way to show \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A chart that shows all the possible combinations of \_\_\_\_\_\_\_\_\_\_\_\_that cann result when genes are crossed.

Letters stand for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_alleles.

An uppercase letter stands for a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_allele.

A lowercase letter stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_alleles.