**Vocabulary:** **Mouse Genetics (One Trait)**



**Vocabulary**

* Allele – one of two or more forms that a gene could take.
* DNA – a molecule found in the cell nucleus that encodes genetic information.
	+ DNA is short for *deoxyribonucleic acid*.
* Dominant allele – an allele that is always expressed when it is present.
	+ Dominant alleles are usually represented by capital letters, such as *F*.
* Gene – a segment of DNA that determines or helps to determine a trait.
	+ Most genes give instructions for building a particular protein.
	+ Many familiar traits are determined by several genes.
* Genotype – the genetic makeup of an organism.
* Heredity – the passage of genetic information from a parent or parents to offspring.
* Heterozygous – having two alleles that are different.
* Homozygous – having two alleles that are the same.
* Hybrid – the offspring of genetically different parents.
	+ For example, the offspring of pure *FF* and *ff* parents is an *Ff* hybrid.
* Inheritance – the passage of genetic material from parents to offspring.
	+ For each gene, an organism receives one allele from each parent.
* Phenotype – the physical appearance of an organism.
	+ Organisms with different genotypes can have the same phenotype. For example, an *FF* mouse and an *Ff* mouse both have black fur.
* Punnett square – a diagram that shows the possible offspring of two parents.
	+ Punnett squares allow you to determine the probability of each offspring genotype.
* Recessive allele – an allele that is not expressed when the dominant allele is present.
	+ Recessive alleles are usually represented by lowercase letters, such as *f*.
* Trait – a characteristic of an organism.
	+ Examples of traits include skin color, eye color, hair, allergies, and many others.