## Complete Frayer Model using these terms.

Mutation- a change in an organisms DNA sequence

<u>Heredity</u>-the passing or transfer of traits from one generation to another generation

<u>Inherited Traits</u>- characteristics or features of one organism that are passed from parent to offspring

<u>Genetics</u>- the study of heredity and the variation of inherited characteristics

<u>Variation/Alleles</u>- different forms of a gene (dominant or recessive)

Dominant Trait- Traits that hide other traits when passed on to offspring. Shows its specific trait even if only one parent passed the gene to the offspring.

<u>Recessive Trait</u>- Traits that are hidden by dominant traits. Shows its specific trait when both parents pass the gene to the offspring.

<u>Gregor Mendel</u>- "Father of Genetics"; discovered the basic principles of heredity through experiments with pea plants.

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Homozygous (purebred): having identical pairs of genes for any given pair of hereditary characteristics.

Heterozygous (hybrid): having <u>dissimilar pairs</u> of genes for any hereditary characteristics.

Genotype: set of genes in our DNA which is responsible for a particular trait; example Tt

Phenotype: outward physical appearance for a trait; example Tall

Punnett square: diagram that is used to predict an outcome of a particular cross or breeding experiment

Probability- the likelihood of something happening

P<sub>1</sub> generation- first generation=parent generation

F<sub>1</sub> Generation- filial=son; second generation