

## Mendel & the Punnett Square Fill-in-the-Blank Notes

Before scientists knew about the microbiology of genetics, \_\_\_\_\_ noticed specific traits of pea plants. Because of the passing of traits, he began to study \_\_\_\_\_.

Mendel personally cultivated over \_\_\_\_, \_\_\_\_\_ pea plants for his study of heredity

Mendel studied the inheritance of \_\_\_\_\_ different pea features.

Mendel crossed different forms of a feature, and the \_\_\_\_\_ generation's results had the same phenotype as one parent.

The second generation of crosses resulted in a \_\_:\_\_ ratio for phenotypes of each parent's trait.

Mendel's observations influenced \_\_\_\_\_ principles of \_\_\_\_\_.

Punnett Squares can be used to predict the genotypes of offspring using \_\_\_\_\_.

The genotypic ratios calculated by Punnett Squares may not reflect actual \_\_\_\_\_.

A \_\_\_\_\_ cross Punnett Square shows the possible allele combinations for one gene.

A monohybrid cross Punnett Square is a \_\_x\_\_ grid.

The \_\_\_\_\_ of the Punnett square is the genotype of one parent, the \_\_\_\_\_ side has the genotype of the other parent.

Only \_\_\_\_\_ letter goes above each box, the \_\_\_\_\_ chosen for either side does not matter.

Each individual column's alleles are written \_\_\_\_\_ and across, with capital letters written \_\_\_\_\_.

The genotype cross of a homozygous dominant and a homozygous recessive results in a 100% \_\_\_\_\_ genotype for the offspring.

The genotype cross of a heterozygous and a heterozygous will result in 25% homozygous \_\_\_\_\_, 25% homozygous recessive, 50% \_\_\_\_\_.