**Mendelian Genetics Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Gregor Mendel** (1822-1884) – Responsible for the Laws governing the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Austrian monk
* Studied the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of traits in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Developed the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Mende’s work was not recognized until the turn of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Mendel cultivated and tested some \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* He found that the plants' offspring retained \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Called the “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”.

 **Particulate Inheritance**

Mendel stated that physical traits are inherited as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Mendel did not know that the “particles” were \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Genetics Terminology**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Any characteristic that can be passed from parent to offspring.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Passing of traits from parent to offspring

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Study of heredity

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Cross involving a single trait

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - two forms of a gene (dominant and recessive)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - stronger of two genes expressed in the hybrid; represented by a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- gene that shows up less often in a cross; represented by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**More Terminology**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - gene combination for a trait (Examples: \_\_\_\_\_\_, \_\_\_\_\_\_, \_\_\_\_\_\_ )  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - the physical features resulting from a genotype (Examples: \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_)

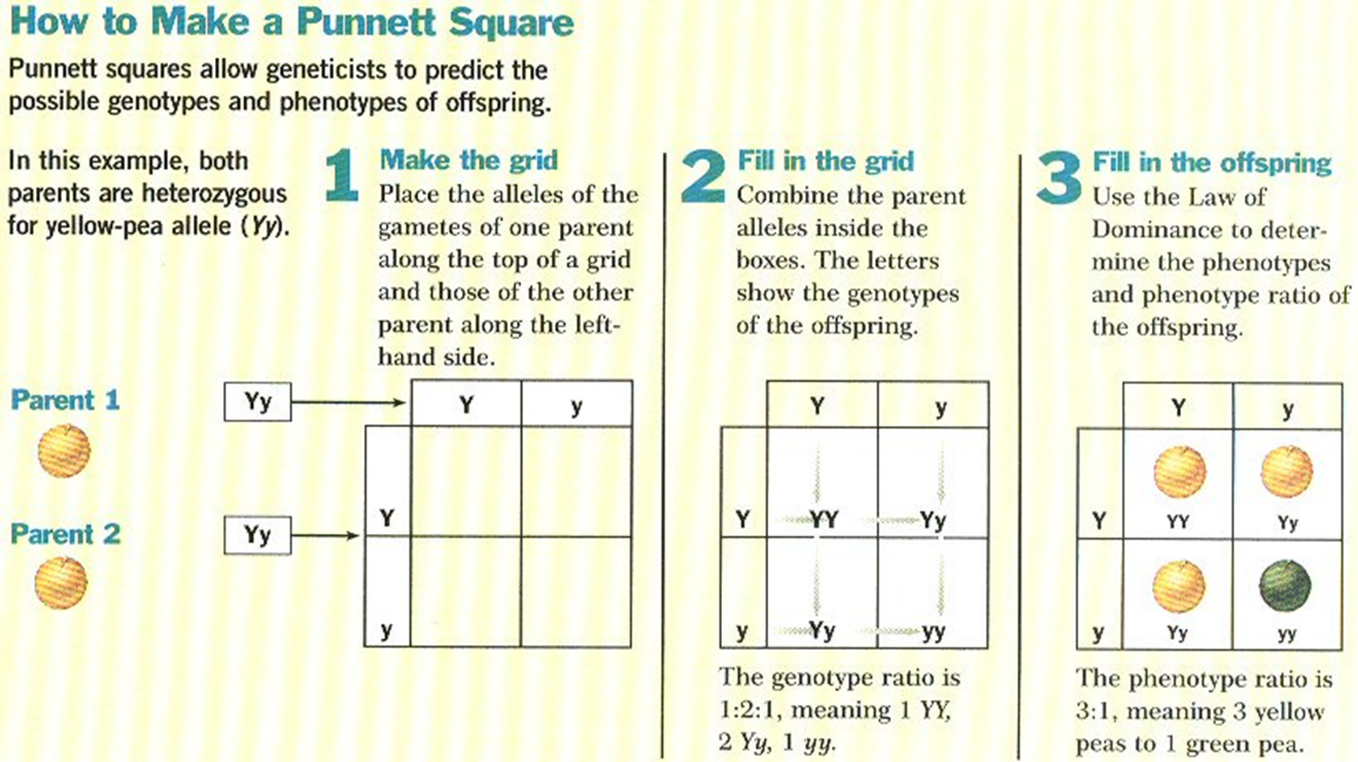
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - gene combination involving 2 dominant or 2 recessive genes.

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ has a genotype of two capital letters, \_\_\_\_\_\_\_\_\_.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ has a genotype of two lowercase letters \_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- gene combination with one dominant allele and one recessive allele.

* Example \_\_\_\_\_\_\_ - This is also called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - A tool used to help solve genetic problems.



***Eight Pea Plant Traits***

**Seed shape --- Round (R) or Wrinkled (r)**

**Seed Color ---- Yellow (Y) or  Green (y)**

**Pod Shape --- Smooth (S) or wrinkled (s)**

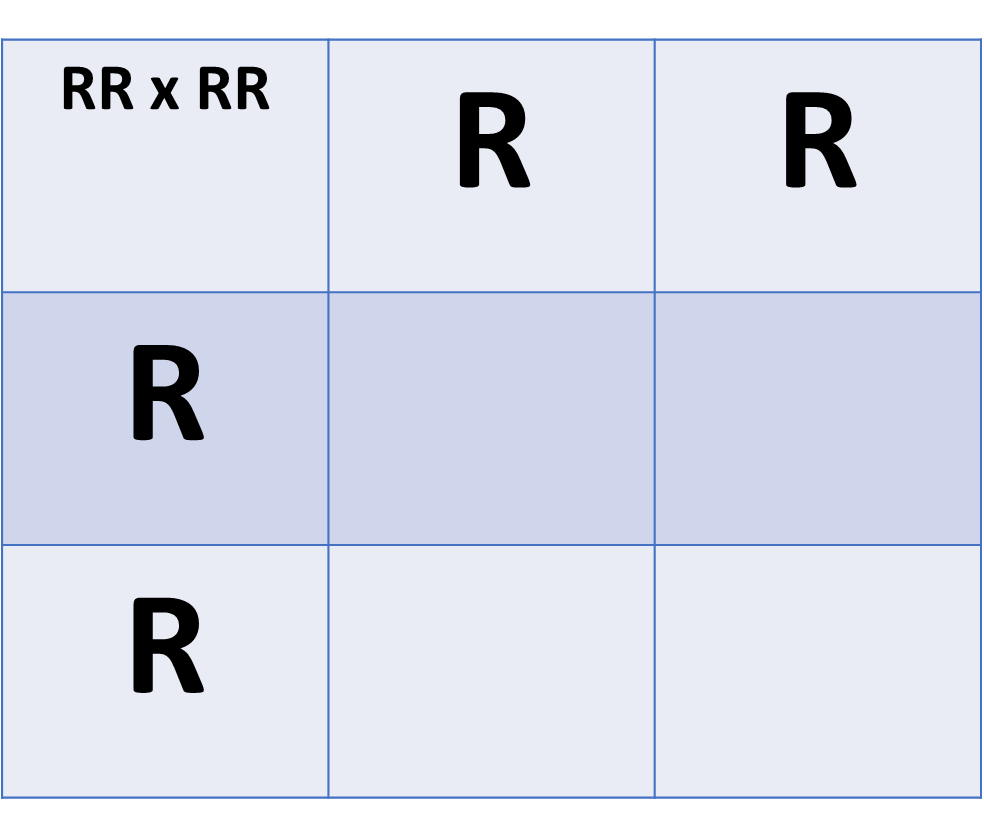
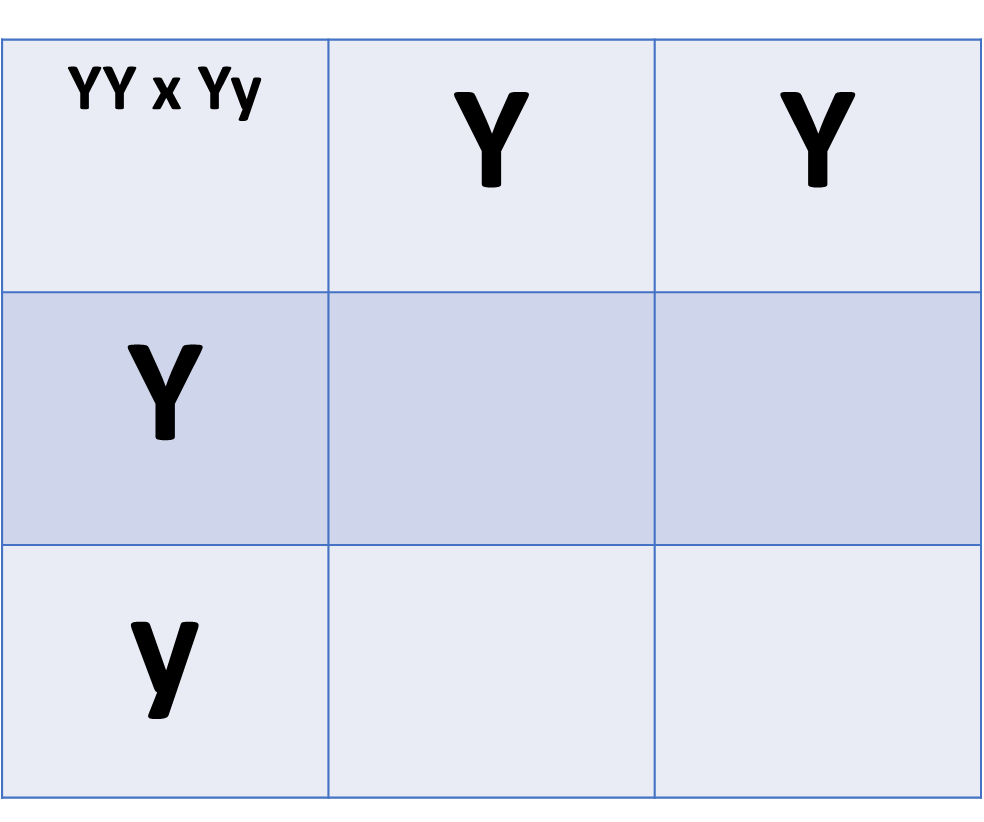
**Pod Color ---  Green (G) or Yellow (g)**

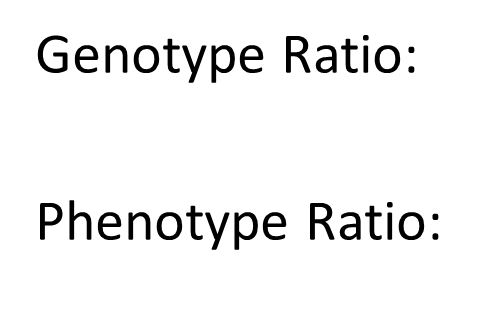
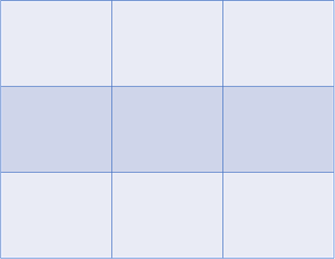
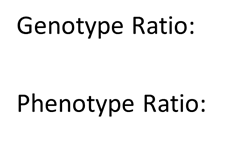
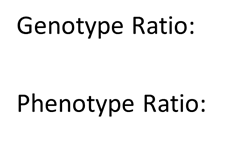
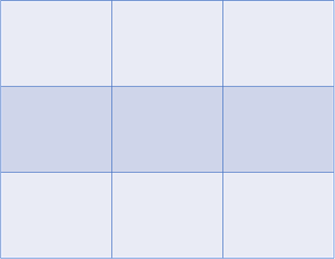
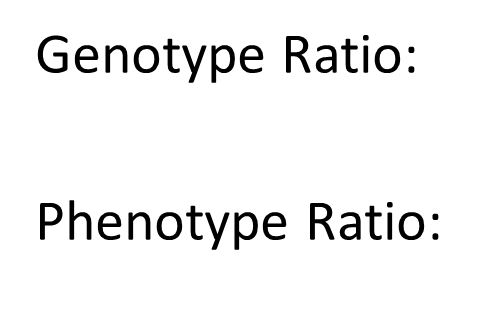
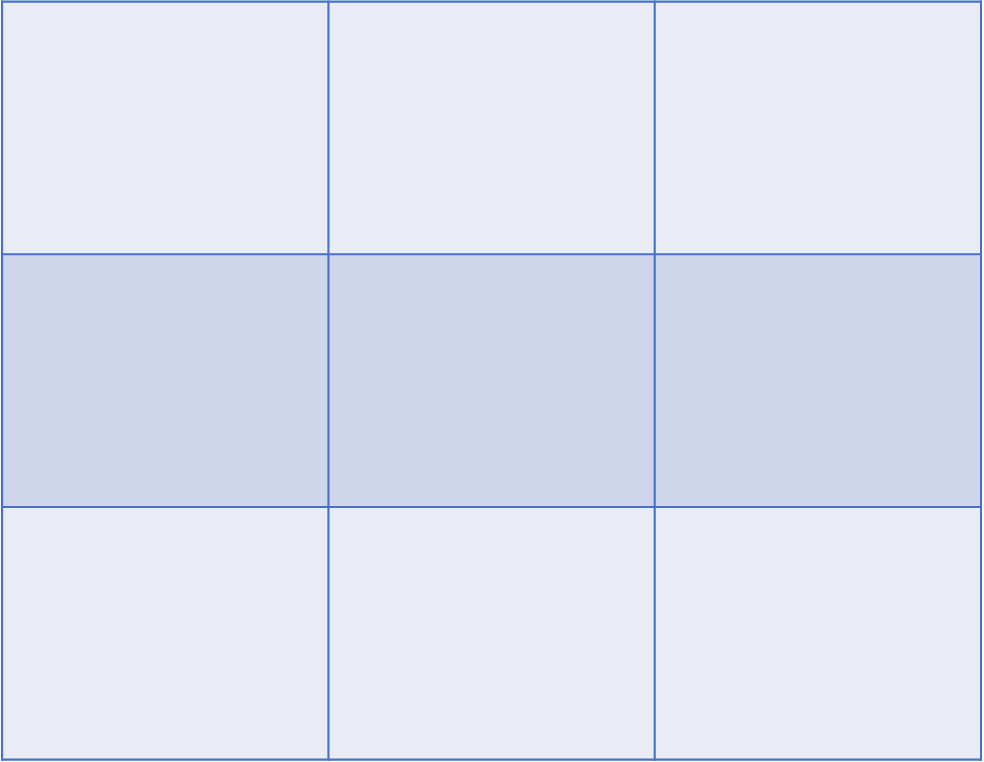
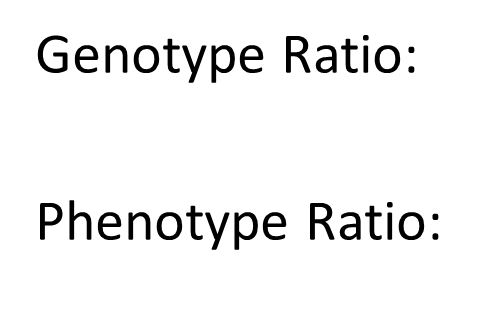
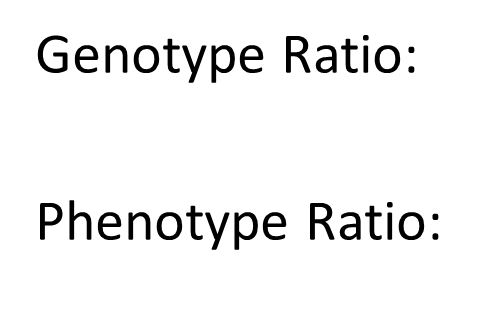
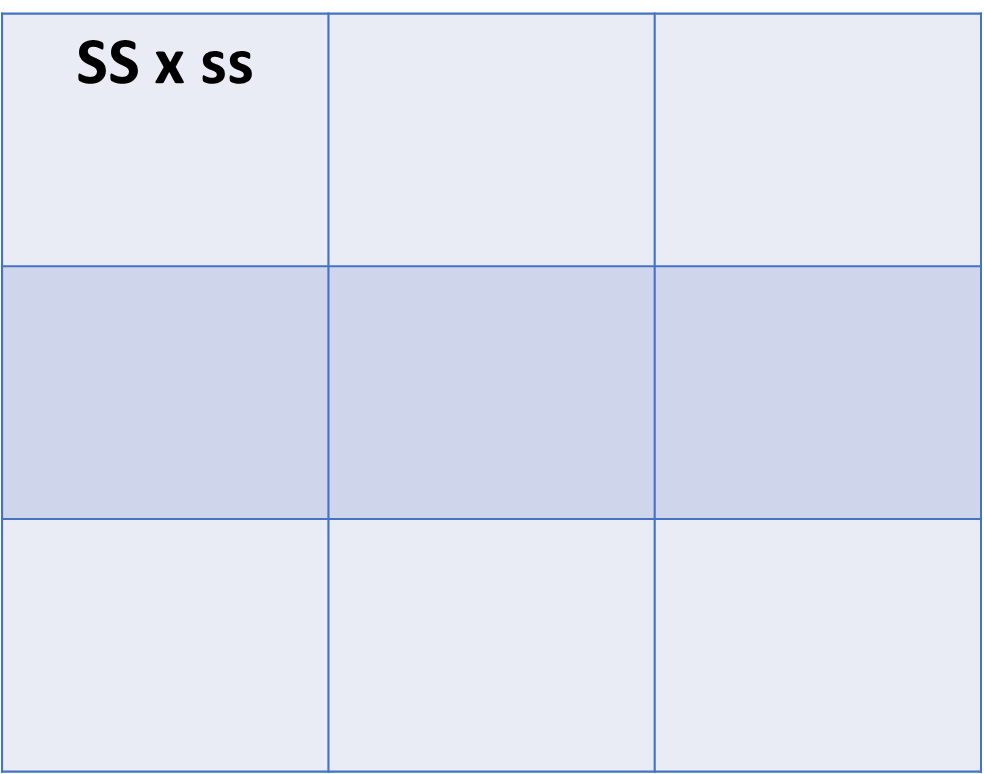
**Seed Coat Color ---Gray (G) or White (g)**

**Flower position---Axial (A) or Terminal (a)**

**Plant Height --- Tall (T) or Short (t)**

**Flower color --- Purple (P) or white (p)**

**Punnett Square: The Six Possible Monohybrid Crosses**

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