Mendel's Law of Segregation

- Mendel thought that the two alleles for a trait separate during meiosis
- During fertilization 1 allele from mom + 1 allele from dad = you
- Example:

  yellow (YY) → Y and Y

  green (yy) → y and y

  Y (parent) + **y** (parent) → **Yy** (yellow)
- The resulting heterozygous organism is called a HYBRID

Monohybrid Cross

- A cross that involves hybrids (heterzygous) for a trait
  - Example: Yy
- Use a Punnett square to show the possible results
  - Male gamete goes on top, female on the side

	Y	y
Y	**YY (yellow)**	**Yy (yellow)**
y	Yy (yellow)	yy (green)

Monohybrid Cross

- Draw a Punnett square of a purebred (nonhybrid) purple flower (P) and a purebred (nonhybrid) white flower (p)
  - How many purple flowers result?
  - How many white flowers result?
  - What are the genotypes of the offspring?
- Draw a Punnett square of two offspring cross pollinating
  - How many purple flowers result?
  - How many white flowers result?
  - What are the genotypes of the offspring?
  - What is the ratio of purple to white?