

# Mendelian Genetics Reading Objectives (New/Old Book Ch. 14)

## Big Ideas of the Chapter:

How is probability used to determine genetic outcomes? How was it used to support Mendel's ideas?  
What are the typical patterns of Mendelian genetics? What are exceptions to these 'rules'?

### Character -

### Trait -

How and why did Mendel control pollination in his experiments?

### True Breeding -

### Hybridization -

Describe a typical cross using a homozygous dominant and a homozygous recessive pea plant. Be sure to discuss P, F1, and F2 generations, genotypes and phenotypes.

Describe the Law of Segregation. Why is this important?

### Allele -

Discuss the difference between a dominant and recessive allele.

Discuss the differences between Homozygous and Heterozygous.

Discuss the differences between genotype and phenotype.

What is a testcross?

**Monohybrid** -

**Dihybrid** -

Discuss the **law of independent assortment**.

How can the rule of multiplication and the rule of addition be used to determine genetic probabilities?

**Incomplete Dominance** -

**Codominance** -

**Multiple Alleles** -

**Pleiotropy** -

**Epistasis** -

**Polygenic Inheritance** -

What is a pedigree? What is it used to display?

**Carrier** -

Complete the table below:

<b>Disease</b>	<b>Inheritance Pattern (Dom/Rec)</b>	<b>Symptoms</b>
Cystic Fibrosis		
Sickle-Cell Disease		
Huntington's Disease		
Heart Disease		

What are some ways that babies are tested for genetic diseases?