

These Slides Accompany the YouTube Video Tutorial:  
<https://www.youtube.com/watch?v=oMvQSF2iVAK>

# Mendel's Laws of Inheritance

*How Mendel began his work*

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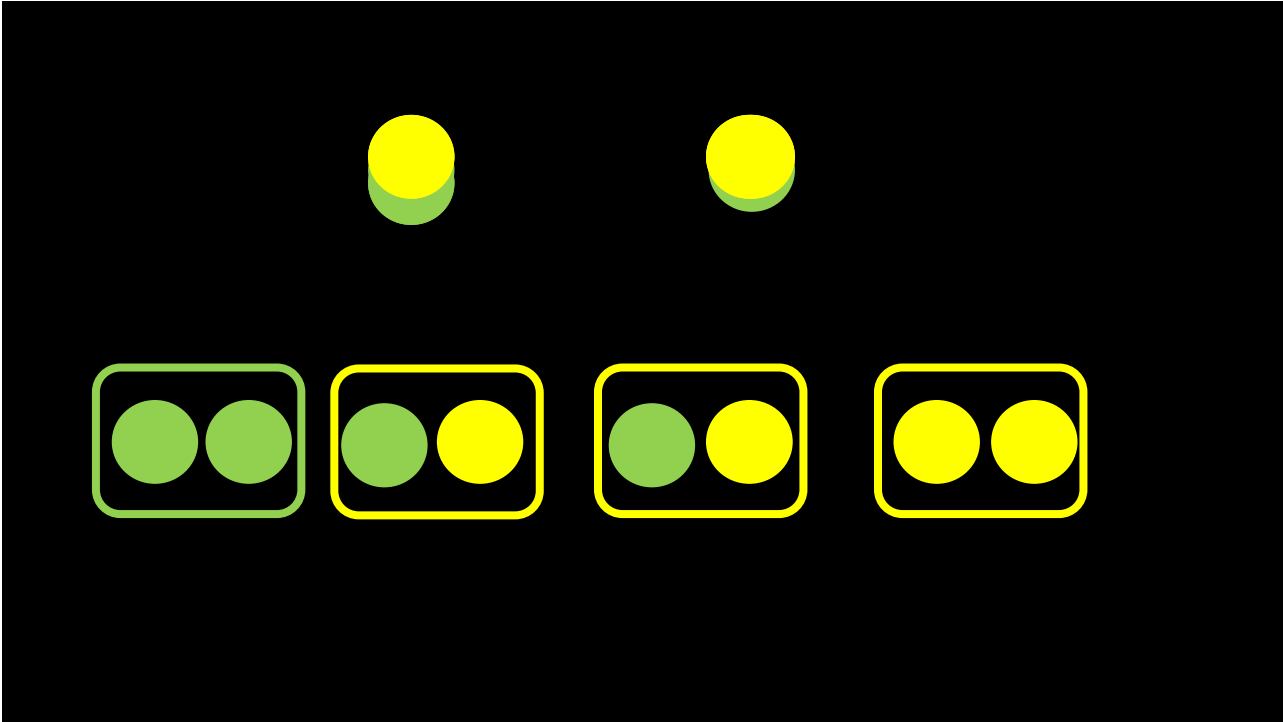
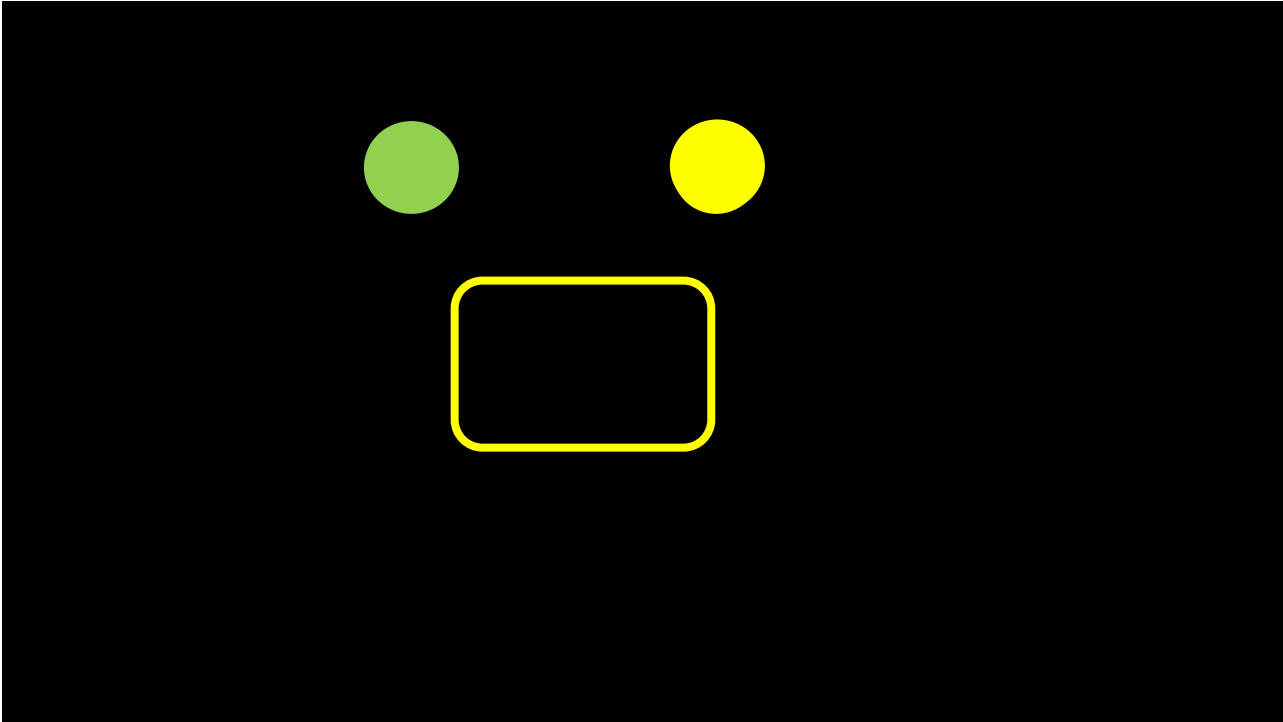
*Law of Dominance*

*Hybrids show Dominant trait (Phenotype)*

*Law of Segregation*

*Each allele retain itself distinct identity even though they remain together*

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- When dominant AA and recessive aa is crossed, the percentage ratio of the hybrid showing the parental genotypes is  
(A) 0% (B) 25% (C) 50% (D) 75%
- Which cross would produce phenotypic ratios that would illustrate the Law of Dominance?
  - A. TT x tt
  - B. TT x Tt
  - C. Tt x Tt
  - D. tt x tt

- *How many gametes would be formed from Aa Bb Cc?*
- *How many gametes would be formed from Aa Bb cc?*

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## Law of Independent Assortment

*'when two pairs of traits are combined in a hybrid, segregation of one pair of characters is independent of the other pair of characters'*

	RY	Ry	rY	ry		
RY					round, yellow-	RY
Ry					round, green-	Ry
rY					wrinkled ,yellow-	rY
ry					wrinkled ,green-	ry

**How many different types of phenotypes would be formed from a cross of RrYy x RrYy?**

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Assuming complete dominance, what is the phenotypic ratio of the offspring of the cross  $AaBb \times aabb$

- (a) 1:1
- (b) 3:1
- (c) 1:1:1:1
- (d) 9:3:3:1

Assuming complete dominance, what is the phenotypic ratio of the offspring of the cross  $AaBb \times aabb$

- AA,Aa-Red
- aa-white
- BB-,Bb-Big
- bb-small

	<b>AB</b>	<b>Ab</b>	<b>aB</b>	<b>ab</b>
<b>ab</b>	AaBb 1	Aabb 1	aaBb 1	aabb 1