



## Gregor Mendel Inheritance 101 Video Notes

Important words to know:

Genetics - \_\_\_\_\_

Fertilization - \_\_\_\_\_

Trait - \_\_\_\_\_

Hybrids - \_\_\_\_\_

Genes - \_\_\_\_\_

Alleles - \_\_\_\_\_

Principle of Dominance - \_\_\_\_\_

\_\_\_\_\_

Segregation - \_\_\_\_\_

1. What does Homozygous dominant mean? Give an example. \_\_\_\_\_

\_\_\_\_\_

2. What does Heterozygous dominant mean? Give an example. \_\_\_\_\_

\_\_\_\_\_

3. What does Homozygous recessive mean? Give an example. \_\_\_\_\_

\_\_\_\_\_

4. Why did Gregor Mendel cross pea plants? \_\_\_\_\_

\_\_\_\_\_

5. Make the Punnett square crosses for Pea plants and write the supporting information for each below:

First Generation = F<sub>1</sub>

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Write the resulting genotype and phenotype

\_\_\_\_\_

Second Generation = F<sub>2</sub>

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Write the resulting genotype and phenotype

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A closer look at Punnett Squares – Tall (T) is dominant over short (t). Cross two heterozygous dominant parents.

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**Genotypes**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
Genotypic ratio = \_\_\_\_\_

**Phenotypes = Physical Appearance**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
 Phenotypic ratio = \_\_\_\_\_

**Practice 1 – Brown eyes (B) are dominant over blue eyes (b). Cross heterozygous dominant with homozygous recessive.**

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**Genotypes**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
Genotypic ratio = \_\_\_\_\_

**Phenotypes = Physical Appearance**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
 Phenotypic ratio = \_\_\_\_\_

**Practice 2 – Curly hair (C) is dominant over straight hair (c). Cross homozygous dominant with heterozygous recessive.**

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**Genotypes**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
Genotypic ratio = \_\_\_\_\_

**Phenotypes = Physical Appearance**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
 Phenotypic ratio = \_\_\_\_\_

**Check for Understanding: Purple flowers (P) are dominant over white flowers (p). Cross a homozygous dominant flower with a homozygous recess flower, then cross the resulting offspring. Answer the questions.**

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**Genotypes**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
Genotypic ratio = \_\_\_\_\_

**Phenotypes = Physical Appearance**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
 Phenotypic ratio = \_\_\_\_\_

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**Genotypes**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
Genotypic ratio = \_\_\_\_\_

**Phenotypes = Physical Appearance**

Homozygous dominant = \_\_\_\_\_  
 Heterozygous dominant = \_\_\_\_\_  
 Homozygous recessive = \_\_\_\_\_  
 Phenotypic ratio = \_\_\_\_\_

