

GENETICS

LESSON 5: AUTOSOMAL OR MENDELIAN GENETICS

Learning Outcomes

- I can describe how Gregor Mendel discovered genetics and patterns of inheritance.
- I can define the terms homozygous dominant, homozygous recessive and heterozygous, and correctly write out an allele pairing for each.
- I can differentiate between genotype and phenotype.

Genetics

- _____
- _____

- known about long before it was understood how genetics actually worked → _____

Gregor Mendel (1822-1884)

- _____
- _____

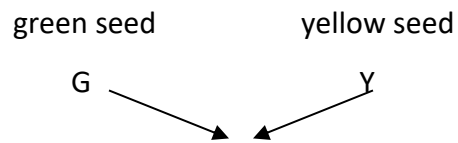
Before starting his experiments, he had already hypothesized that:

1. _____
 2. _____
 3. _____

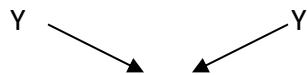
 4. _____
- Mendel tested these hypotheses using garden peas
 - Tested seven different traits, each of which had only _____ forms

Experiment → tested seed colour (yellow and green forms)

1. _____
2. _____



3. _____



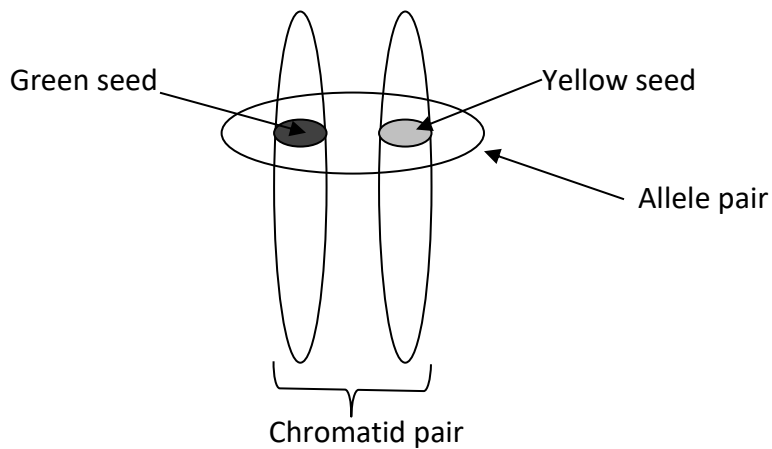
4. Conclusion

- a. _____
- b. _____
- c. _____

Modern Genetics

Alleles

- _____
- _____



- When comparing alleles, a single _____ is always used to represent the gene being studied.

- $Y \rightarrow$ _____

- $y \rightarrow$ _____

- Since there are _____ alleles per gene, there are _____ possible combinations.

- $YY \rightarrow$ _____

- $Yy \rightarrow$ _____

- $yy \rightarrow$ _____

Genotype vs. Phenotype

- _____

- _____

Genotype	Phenotype

ASSIGNMENT:

GENETIC VOCABULARY WORD TO ENTER INTO YOUR QUIZLET SETS FOR STUDY:

***If you already have any of these terms added, just skip them*

- Genetics
- DNA
- Traits
- Dominant
- Genotype
- Homozygous/Purebred
- Mitosis
- Heredity
- Genes
- Alleles
- Recessive
- Phenotype
- Heterozygous/Hybrid
- Meiosis