

Scientist's Glossary



Tool: **Rehearsal**

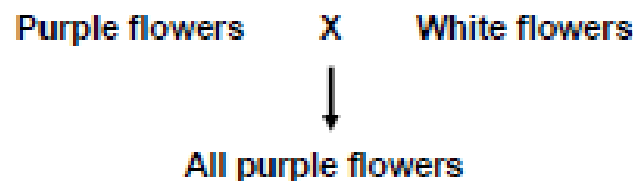
1. **Allele:** Different form of the same gene containing slightly different genetic information that encodes a slight difference in a trait.
2. **Cell:** The smallest level of organization found in living things.
3. **Chromosome:** Structures of DNA and protein found in the nucleus of cells. It is also where a gene is located.
4. **DNA:** Deoxyribonucleic acid that carries genetic information in cells.
5. **Dominant:** An allele that will produce a trait that masks another trait for the same characteristic (prevents it from being expressed).
6. **Gene:** A small portion of DNA that carries specific genetic information.
7. **Inheritance:** The passing of genetic information and traits from parents to offspring.
8. **Recessive:** An allele that produces a trait that is masked by a dominant trait.
9. **Trait:** One form of a physical characteristic determined by a specific allele.

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Investigation 2

Scientific Background

Gregor Mendel was a monk who lived in Austria in the 1800's. He used pea plants to study how different traits are passed from parents to their offspring. He noticed that all of the pea plants in his garden had either purple flowers or white flowers. He crossed or bred the different pea plants. He observed that when he crossed a pea plant with purple flowers with a pea plant with white flowers, all of the offspring had purple flowers.



Mendel discovered that the trait for purple flowers was *dominant* over the trait with white flowers. The purple trait hid the white trait and prevented it from being expressed. The white trait was *recessive*.

In order to organize and present his data, Gregor Mendel created a lettering system. He assigned one letter to each trait. For example, the trait for flower color was assigned the letter "p." If an allele was dominant, it was assigned an uppercase "P." If an allele was recessive, it was assigned a lowercase "p." For example:

