

Introduction to Genetics



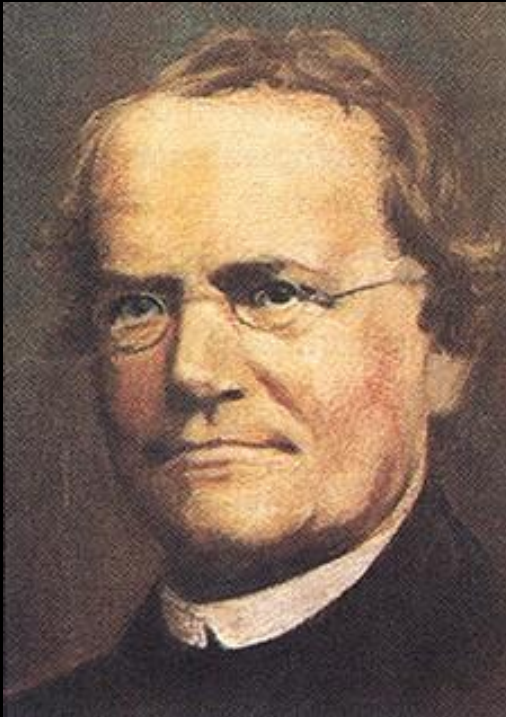
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Mendelian Genetics

Learning Objectives

- Describe how Mendel studied inheritance in peas

Genetics

Genetics - the scientific study of heredity.

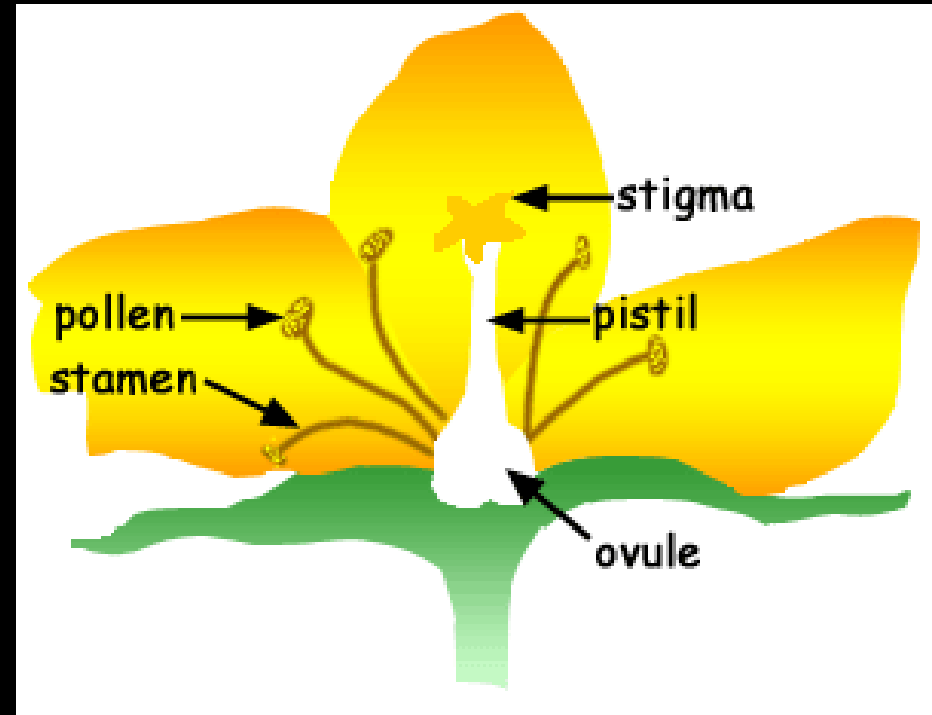


Gregor Mendel was an Austrian monk. His work was important to the understanding of heredity.

The Work of Gregor Mendel in Garden Peas

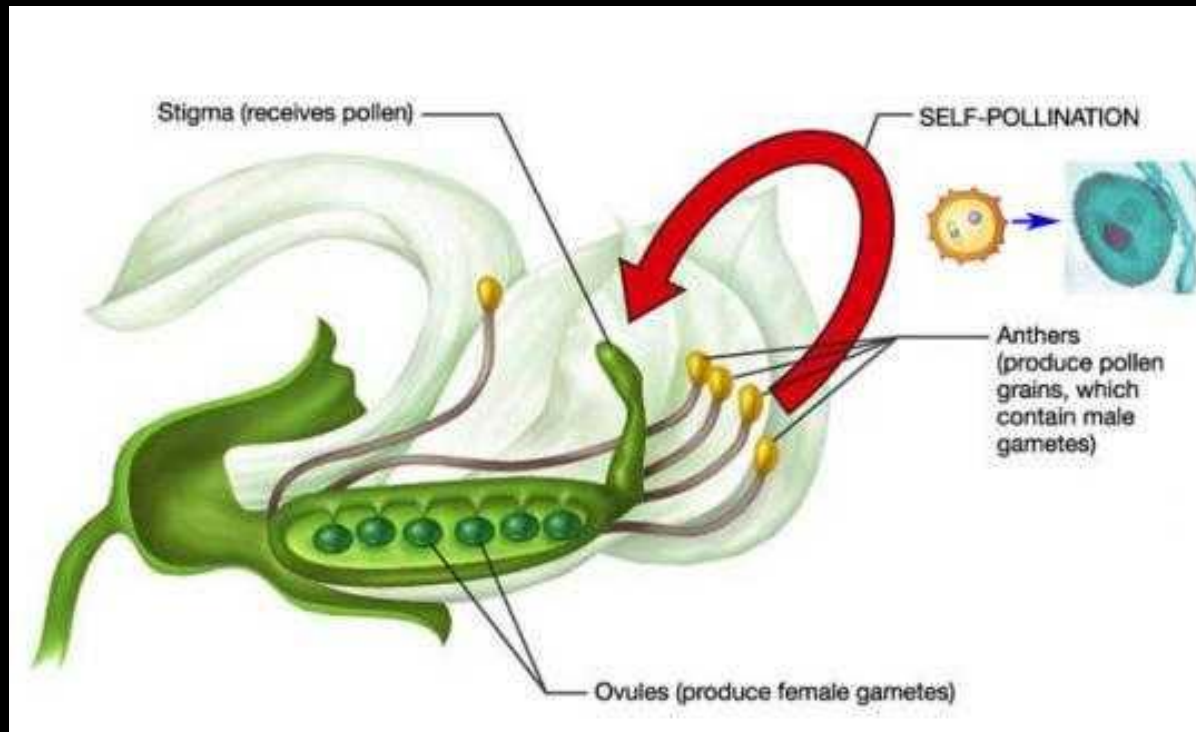
Male part of a flower
produces pollen, which
contains sperm.

Female part of a flower
produces egg cells.



Fertilization

During sexual reproduction, sperm and egg join in a process called fertilization, producing a new cell.

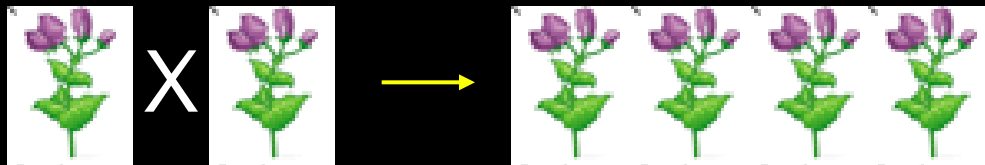


Pea flowers are self-pollinating.

True Breeding

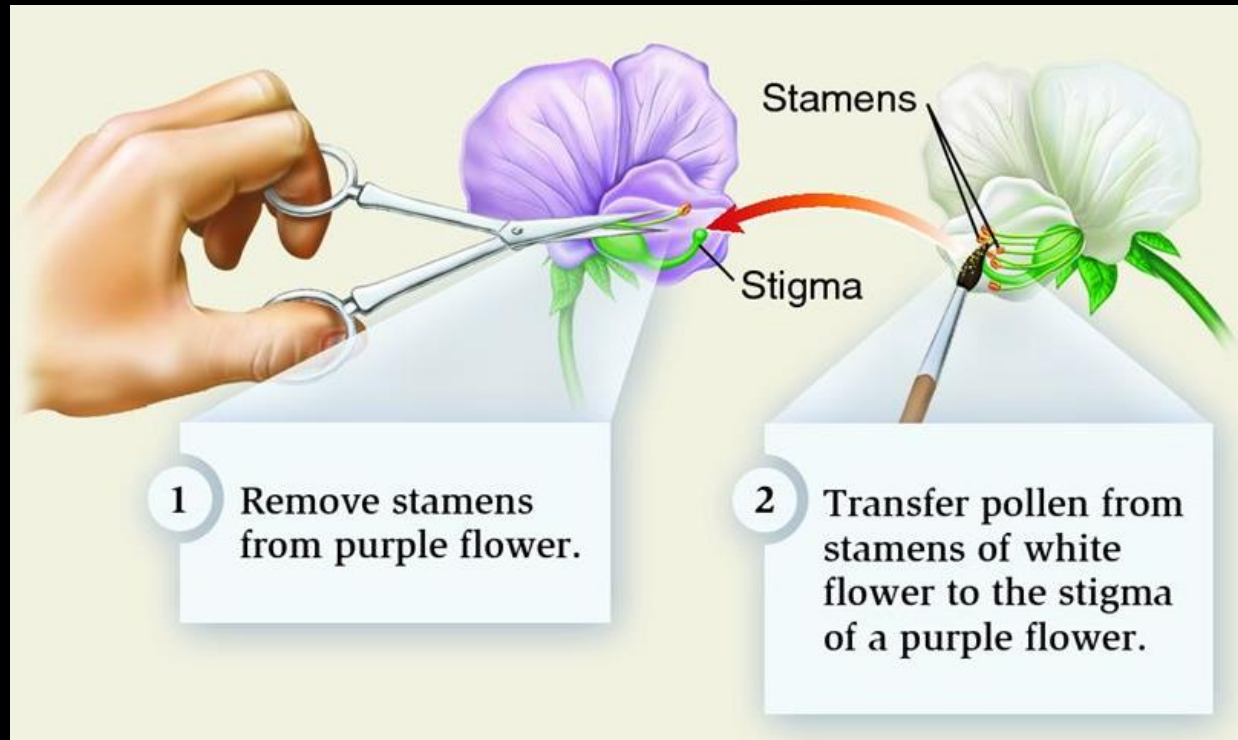


True-breeding - organisms that produce offspring identical to themselves.



Mendel had true-breeding pea plants.

Mendel's Cross Pollination Experiment



Mendel wanted to produce seeds by joining male and female cells from two different plants and study their traits.

Trait - a specific characteristic that varies from one individual to another.



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Fido's Physical Traits

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Inheritance of Traits

Stop Here



The Work of Gregor Mendel

Mendel carried out his work with ordinary garden peas.

Male part of a flower produces pollen, which contains sperm.

Female part of a flower produces egg cells.

