

MENDEL AND HIS PEA PLANTS

1. What is genetics?
2. Explain Mendel's Laws of Heredity *in your own words*:
 - a) The Principle of Dominance:
 - b) The Law of Segregation:
 - c) The Law of Independent Assortment:
3. List 3 reasons why Gregor Mendel was successful as a scientist:
4. Complete the following using the "Flower Color Hybrids" color plate:
 - a) The color plate shows one of Mendel's experiments in which he cross-pollinated purple flowered plants with white-flowered plants. Using the codes provided, **COLOR the P₁ Generation**, representing Mendel's cross-pollination of the Parental Generation.
 - b) **Color the F₁ Generation.**
Describe the offspring in this generation.
 - c) **Color the F₂ Generation.**
How many purple plants resulted?

How many white plants resulted?

What is the ratio of dominant plants to recessive plants?

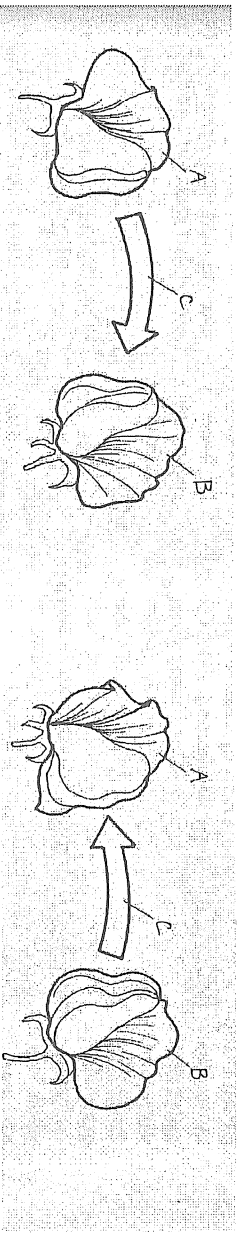
FLOWER COLOR HYBRIDS

P₁ QUANTIFICATION

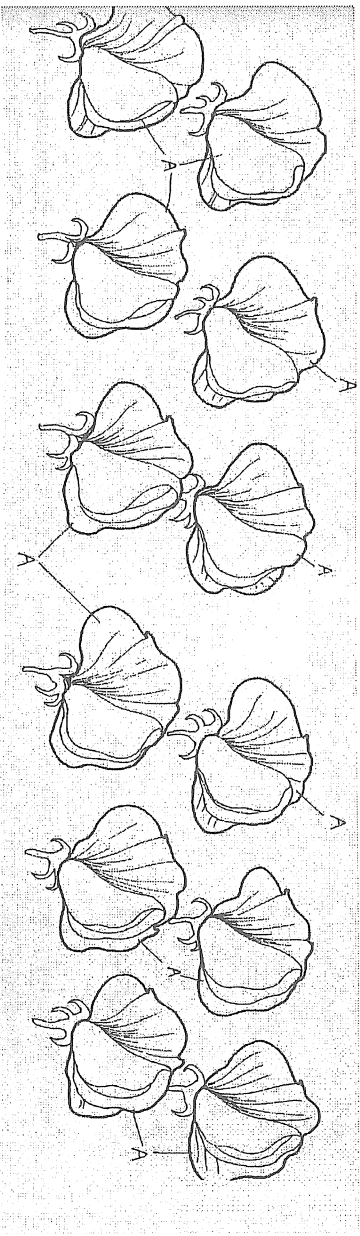
PURPLE FLOWERS

WHITE FLOWERS

CROSS-POLLINATION



F₁ QUANTIFICATION



F₂ QUANTIFICATION

CROSS-POLLINATION

