CONCEPT: INTRODUCTION TO MENDEL'S EXPERIMENTS

●*Gregor* _____ discovered the fundamentals of _____ using _____ plants as a *model organism*.

□ **Model Organisms**: _____-human organisms studied to make discoveries & gain insight on other organisms.

●**Character:** an *inherited* feature that varies among individuals (ex. plant height, flower color, etc.).

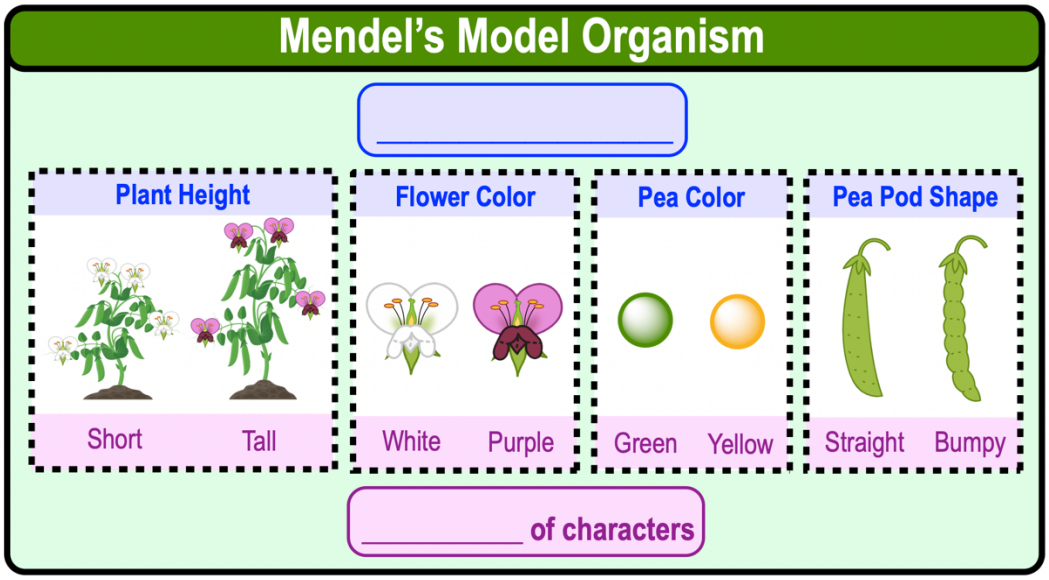
□ _____: different *variants* of a specific *character* (ex. short/tall plants & white/purple flowers).

EXAMPLE: Mendel used Pea Plants to Study Genetics.

Johann Gregor Mendel

1822-1884

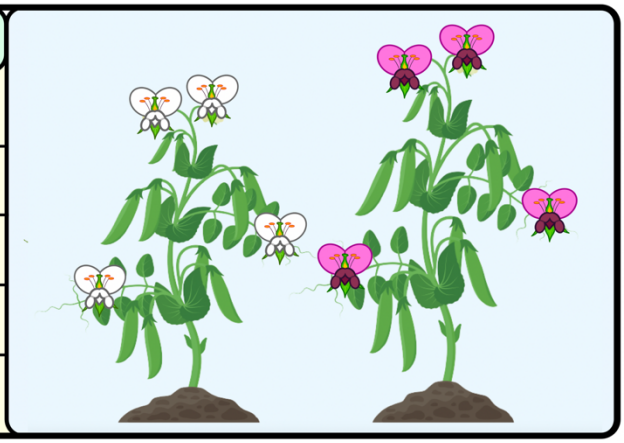
The Father of Genetics



Why Pea Plants?

●Mendel discovered that pea plants were the ideal model organism for studying *inheritance* for multiple reasons:

Why Pea Plants?
1 Easy to _____.
2 _____ quickly.
3 Produce _____ offspring.
4 Have many _____ traits.
5 Easy to control pea plant _____.



PRACTICE: The pea plant (*Pisum sativum*) is a good choice for studying heredity because it:

a) Develops slowly.

b) Produces only a few offspring.

c) Is easy to control which plants mate with each other.

d) Has only a few traits that appear in two easily distinguishable forms.