

Genetics
Mendel's Peas

Name:
 Period:

MENDEL'S PEAS.

THE QUESTIONS.

HOW MANY KINDS? _____ A
 HOW MANY OF EACH? _____



PEA PLANT CHARACTERISTICS★

- | | | |
|----------------|-----------------------|-----------------------|
| FLOWER★ | PURPLE _E | WHITE _F |
| | AXIAL _G | TERMINAL _H |
| HEIGHT★ | TALL | DWARF _J |
| SEED★ | YELLOW _K | GREEN _L |
| | ROUND _M | ANGULAR _N |
| POD★ | GREEN _O | YELLOW _P |
| | INFLATED _Q | WRINKLED _R |

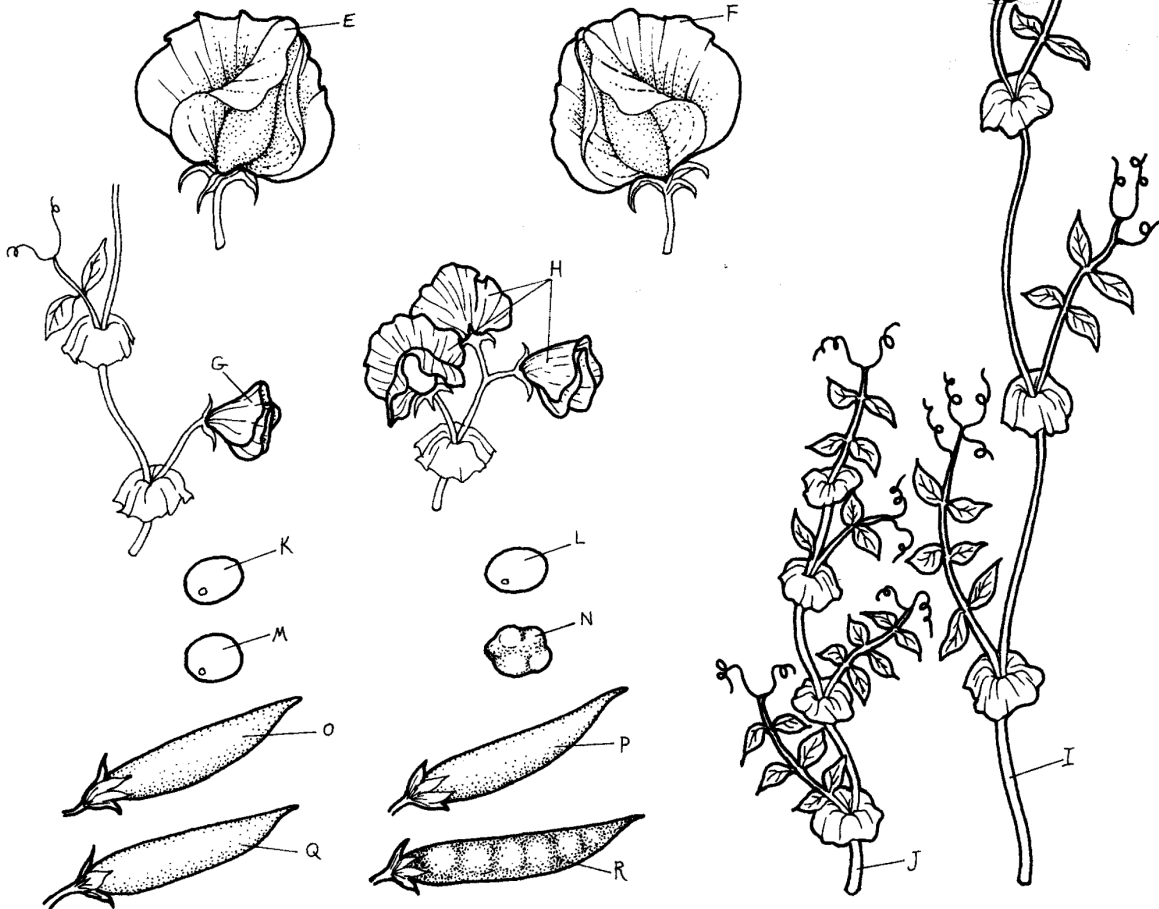


diagram from The Biology Coloring Book (1986) by Robert D. Griffin

Genetics

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Mendel's Peas

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Follow the directions below to color-code the diagram and to answer the questions. You can use Chapter 6, Section 1 of your book to help you. Fill in the blanks using terms from the word bank below each paragraph. Use colored pencils when you color, and check off each box as you finish that part of the instructions.

Gregor Mendel was a famous _____ who studied _____ by doing experiments with plants. He chose a specific kind of plant to study—the _____. This is the same kind of plant that makes the peas that you can _____. The pea plant was selected because they grow _____ and because there are _____ varieties. For his studies, Mendel paid careful attention to different _____ of the pea plants.

eat genetics many parts pea plant quickly scientist

Color the title MENDEL'S PEAS in black . Mendel tried to answer many _____ about his pea plants. To keep careful track of his _____, so he could make good _____ about his _____, he always asked _____ basic questions. Color THE QUESTIONS in red , as well as the questions with A pointing to them .

conclusions data experiments questions two

A pea plant can reproduce either asexually or sexually. When reproducing _____, the plant fertilizes itself before the flower opens. So, the _____ of the pea plant will have all of the same **characteristics** (forms) as the parent pea plant. This meant that Mendel could _____ what characteristics would show up each time a new plant was made. Mendel then started controlling the pollen of the plants, mixing the pollen from one plant to another. In this way, he forced the plants to reproduce _____. So, the new pea plants had DNA from _____ parent plants. Mendel could then keep track of what kind of **traits** (variations of characteristics) showed up. Even though the DNA of the plants was too small to see, even with a microscope, Mendel was able to figure out that some of the _____ controlled by the _____ were more common than others.

asexually both DNA offspring predict sexually traits

Color PEA PLANT CHARACTERISTICS in black . Also use black to color the four words below it that have a star (★) after them . Now start examining and coloring the different traits for each characteristic. Use the color codes below. Sometimes you will be using the same color, just more lightly.

E—purple

J—light brown

O—green

F—white

K—yellow

P—yellow

G—light blue

L—green

Q—red

H—blue

M—orange

R—pink

I—brown

N—light orange