Vocabulary

1. Below each of the following terms are choices. Circle the choices that are appropriate for each term.

**Dominant** gene: D e k L N o R S

**Recessive** gene: M n d F G I k P

**Homozygous** dominant: AA Gg KK ll pp Rr TT Qq

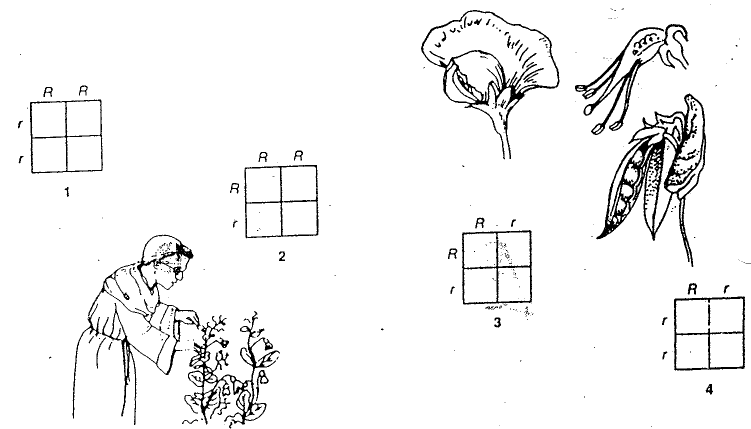
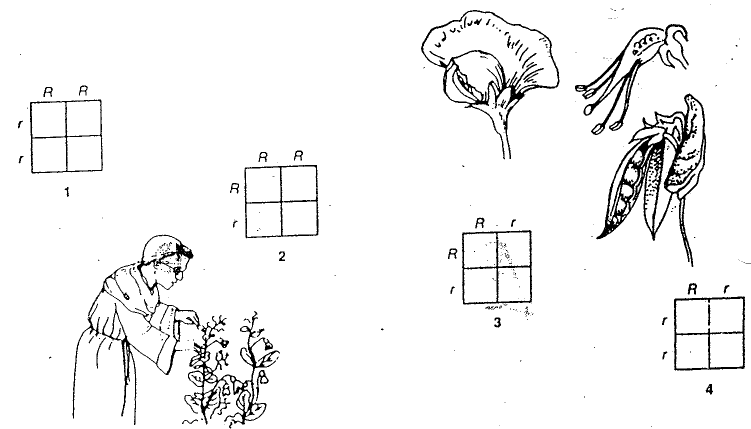
**Homozygous** recessive: ee Ff HH Oo qq Uu ww Nn

Genotypes that **show** dominant gene: AA Dd EE ff Jj RR

Genotypes that **show** recessive gene: Ss gg BB Zz pp Vv

1. Fill in the Blanks using the following terms: **dominant, genes, genetics, heterozygous, homozygous, recessive, chromosomes, Punnett square.**
   1. Chromosomes have parts that determine traits. Those are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   2. A person having two genes which are alike is said to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   3. A gene that “hides” another gene is said to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   4. A gene that doesn’t always show up (even when it is present) is said to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   5. Rod-shaped structures in a cell’s nucleus are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   6. One who studies how traits are passed on is studying \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   7. A person with one dominant copy of a gene and one recessive copy of that same gene is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   8. A table which shows which genes can combine when an egg and sperm join is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Expected and Observed Results

1. Gregor Mendel made the following crosses with pea plants. Complete the Punnett squares and answer the questions about each “cross.”

He crosses a red flowered R plant with a white flowered r plant. His results were 126 red flowered plants and 122 white flowered plants. Which Punnett square best shows the parents and offspring that could give these results?

He crosses a red flowered plant with a white flowered plant. His results were 307 red flowered plants and 0 white flowered plants. Which Punnett Square could describe this scenario?

He crosses a red flowered plant with another red flowered plant. He got mostly red offspring but 22% of them were white. Which Punnett square describes that possibility?

A Red flowered plant is crosses with another red flowered plant. All offspring are red. Which Punnett square?