

Genetics

Name:

Genotypes and Phenotypes

Period:

Use Chapter 6, Section 2 of your textbook to answer the questions below. The word banks can be used to fill out the sentences below them. Some terms may be used more than once.

alleles characteristic dominant genes phenotype recessive two

Section 2: Traits and Inheritance

A Great Idea (p.180)

1. Through his experiments, Mendel figured out that there must be _____ sets of instructions for each characteristic.
2. Instructions for both _____ and _____ traits were carried by Mendel's first-generation plants.
3. Instructions for inherited traits are called _____.
- _____ 4. How many versions of genes for each characteristic do offspring get?
 - a. one version from each parent
 - b. two versions from one parent
 - c. one version from one parent
 - d. two versions from each parent
5. The different versions of a gene are called _____.
- _____ 6. What type of allele is shown as capital letters?
 - a. small alleles
 - b. dominant alleles
 - c. recessive alleles
 - d. large alleles
- _____ 7. What type of allele is shown as lowercase letters?
 - a. small alleles
 - b. dominant alleles
 - c. recessive alleles
 - d. large alleles
8. The recessive trait shows up when the organism has _____ copies of the recessive allele.

Phenotype (p.180)

9. An organism's appearance is called its _____.
10. Look at Figure 1. The phenotypes of white flowers and purple flowers describe the _____ of flower color.



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Genotype (p.181)

Match the correct description with the correct term. Write the letter in the space provided.

- _____ 11. formed by both inherited alleles together
 - a. homozygous
- _____ 12. a plant with two dominant or two recessive alleles
 - b. heterozygous
- _____ 13. a plant with one dominant and one recessive allele
 - c. genotype
14. How many dominant alleles are needed before the dominant trait is seen in the phenotype? _____