

Chapter 11- Introduction to Genetics

Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

- ___ 1. Gregor Mendel used pea plants to study
 - a. flowering.
 - b. gamete formation.
 - c. the inheritance of traits.
 - d. cross-pollination.
- ___ 2. Offspring that result from crosses between true-breeding parents with different traits
 - a. are true-breeding.
 - b. make up the F₂ generation.
 - c. make up the parental generation.
 - d. are called hybrids.
- ___ 3. The chemical factors that determine traits are called
 - a. alleles.
 - b. traits.
 - c. genes.
 - d. characters.
- ___ 4. Gregor Mendel concluded that traits are
 - a. not inherited by offspring.
 - b. inherited through the passing of factors from parents to offspring.
 - c. determined by dominant factors only.
 - d. determined by recessive factors only.
- ___ 5. When Gregor Mendel crossed a tall plant with a short plant, the F₁ plants inherited
 - a. an allele for tallness from each parent.
 - b. an allele for tallness from the tall parent and an allele for shortness from the short parent.
 - c. an allele for shortness from each parent.
 - d. an allele from only the tall parent.
- ___ 6. The principle of dominance states that
 - a. all alleles are dominant.
 - b. all alleles are recessive.
 - c. some alleles are dominant and others are recessive.
 - d. alleles are neither dominant nor recessive.
- ___ 7. When Gregor Mendel crossed true-breeding tall plants with true-breeding short plants, all the offspring were tall because
 - a. the allele for tall plants is recessive.
 - b. the allele for short plants is dominant.
 - c. the allele for tall plants is dominant.
 - d. they were true-breeding like their parents.
- ___ 8. If a pea plant has a recessive allele for green peas, it will produce
 - a. green peas if it also has a dominant allele for yellow peas.
 - b. both green peas and yellow peas if it also has a dominant allele for yellow peas.
 - c. green peas if it does not also have a dominant allele for yellow peas.
 - d. yellow peas if it does not also have a dominant allele for green peas.
- ___ 9. When you flip a coin, what is the probability that it will come up tails?
 - a. 1/2