

Biology Test- Chapter 11: Introduction to Genetics

Multiple Choice

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

- Gregor Mendel used pea plants to study
 - flowering.
 - gamete formation.
 - the inheritance of traits.
 - cross-pollination.
- Offspring that result from crosses between true-breeding parents with different traits
 - are true-breeding.
 - make up the F_2 generation.
 - make up the parental generation.
 - are called hybrids.
- The chemical factors that determine traits are called
 - alleles.
 - traits.
 - genes.
 - characters.
- Gregor Mendel concluded that traits are
 - not inherited by offspring.
 - inherited through the passing of factors from parents to offspring.
 - determined by dominant factors only.
 - determined by recessive factors only.
- When Gregor Mendel crossed a tall plant with a short plant, the F_1 plants inherited
 - an allele for tallness from each parent.
 - an allele for tallness from the tall parent and an allele for shortness from the short parent.
 - an allele for shortness from each parent.
 - an allele from only the tall parent.
- The principle of dominance states that
 - all alleles are dominant.
 - all alleles are recessive.
 - some alleles are dominant and others are recessive.
 - alleles are neither dominant nor recessive.
- When Gregor Mendel crossed true-breeding tall plants with true-breeding short plants, all the offspring were tall because
 - the allele for tall plants is recessive.
 - the allele for short plants is dominant.
 - the allele for tall plants is dominant.
 - they were true-breeding like their parents.
- A tall plant is crossed with a short plant. If the tall F_1 pea plants are allowed to self-pollinate,
 - the offspring will be of medium height.
 - all of the offspring will be tall.
 - all of the offspring will be short.