89

Advances in Genetics

Understanding Main Ideas

Answer the following questions on ~~a separate sheet of paper~~ the back of this paper.

1. What are two types of selective breeding, and how do they compare?
2. What is cloning?
3. How are bacteria used in genetic engineering?
4. How could gene therapy someday be used to treat genetic disorders?
5. How is mitochondrial DNA useful in identifying people?

Building Vocabulary

Match each term with its definition by writing the correct letter in the blank.

____ 6. The process of selecting a few organisms with desired traits to serve as parents of the next generation

____ 7. Crossing two individuals that have similar characteristics

____ 8. Crossing two genetically different individuals

____ 9. Organism that is genetically identical to the organism from which it was produced

____ 10. Process in which genes from one organism are inserted into the DNA of another organism

____ 11. Inserting working copies of a gene directly into the cells of a person with a genetic disorder

____ 12. All the DNA in one cell of an organism

a. inbreeding
b. clone
c. gene therapy
d. selective breeding
e. hybridization
f. genetic engineering
g. genome