

Modern Genetics ▪ 6.3 Review and Reinforce

Advances in Genetics

Understanding Main Ideas

Answer the following questions on a separate sheet of 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.

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| _____ 6. The process of selecting a few organisms with desired traits to serve as parents of the next generation | a. inbreeding |
| _____ 7. Crossing two individuals that have similar characteristics | b. clone |
| _____ 8. Crossing two genetically different individuals | c. gene therapy |
| _____ 9. Organism that is genetically identical to the organism from which it was produced | d. selective breeding |
| _____ 10. Process in which genes from one organism are inserted into the DNA of another organism | e. hybridization |
| _____ 11. Inserting working copies of a gene directly into the cells of a person with a genetic disorder | f. genetic engineering |
| _____ 12. All the DNA in one cell of an organism | g. genome |