

General Biology –Chapter 14 Review

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This review is meant to highlight basic concepts from Chapter 14. It does not cover all concepts presented by your instructor. Refer back to your notes, unit objectives, labs, handouts, etc. to further prepare for your exam.

Matching: Biotechnology Terms

1. _____ A means to transfer rDNA into a host cell.
2. _____ An organism whose genome has been altered by the insertion of genes from another species.
3. _____ DNA from 2 or more different sources.
4. _____ Application of computer technologies, software, and statistics to study biological information
5. _____ Enzyme used to cut DNA at specific points during, creates sticky ends
6. _____ Enzyme used to seal a foreign piece of DNA into a vector
7. _____ Extra ring of DNA found in bacteria.
8. _____ Modification of a human through the use of cloned genes.
9. _____ Production of genetically identical copies of DNA, cells, or organisms.
10. _____ Separates and sorts DNA fragments by size
11. _____ The study of structure, function and interactions of cellular proteins
12. _____ The study of the entire DNA sequence, not just specific genes
13. _____ Uses the enzyme DNA polymerase to create copies of DNA
 - a. Bioinformatics
 - b. Cloning
 - c. DNA ligase
 - d. Gel electrophoresis
 - e. Gene therapy
 - f. Genomics
 - g. Plasmid
 - h. Polymerase chain reaction (PCR)
 - i. Proteomics
 - j. Recombinant DNA (rDNA)
 - k. Restriction enzyme
 - l. Transgenic organism
 - m. Vector

Fill in the blank/True or False: Heredity (if false, what makes the statement true?):

14. The purpose of restriction enzymes that occur naturally in bacterial cells is to degrade viral DNA that enters the cell. True or False?
15. The use of transgenic farm animals to produce pharmaceuticals is called _____.
16. Genomics would be slow going without bioinformatics. True or false?
17. Vectors are used in genetic engineering to introduce _____ into a host cell.
18. An example of _____ gene therapy is when bone marrow cells are removed from an SCID patient, infected with a virus containing the normal gene and then the cells are replaced.
19. An example of _____ gene therapy is when the needed gene is sprayed into the nose or delivered by a virus or liposome directly to the respiratory tract of a cystic fibrosis patient.