

CHAPTER 16 DNA TECHNOLOGY

Get the Big Picture

Study the paragraphs in the boxes and answer the questions.

Scientists have learned how to move genes from one organism to another. This process is called **genetic engineering**. Genetic engineering can be used to give an organism new traits. For example, certain bacteria have been developed with the ability to clean up oil spills. They can break down oil into harmless substances. Scientists also use genetically engineered bacteria to improve agriculture and to treat human disease.

1. In genetic engineering, what is moved from one organism to another one? _____

2. Give two examples of how genetic engineering can help humans. _____

The human genome is made up of all the genes on the 46 human chromosomes. Scientists are now mapping the human genome. They intend to use this map to detect, treat, and cure genetic disorders. DNA fingerprinting is another use of this technology. Every person's DNA is unique. Therefore, DNA from blood, skin, or hair found at a crime scene may be compared with the DNA of a crime suspect. This evidence could give clues about the guilt or innocence of a suspect.

3. What is the human genome made of? _____

4. Why is the mapping of the human genome important? _____
