

13.3 The Human Genome

What is the Human Genome Project?

An international effort begun in 1990 to completely map and sequence the human genome.

What was accomplished in 2000?

HGP completed the first draft of the 3 billion base pairs of DNA in every human cell.

What is a linkage map?

The genetic map that shows the location of genes on a chromosome.

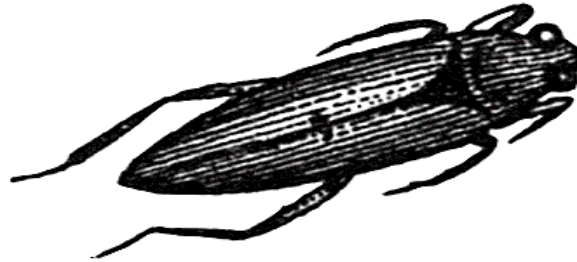
What is polymerase chain reaction PCR?

A technique used to identify Genetic markers spread throughout the genome. These are used to track the inheritance pattern of a gene. (genotyping)



13.3 (cont.)

How is the human genome sequenced?



How can chromosome maps be used?

How are genetic disorders diagnosed?

What is a forensic analyst?

What is gene therapy?

DNA fragments are cloned and aligned by overlapping matching sequences; automated machines perform this task.

prenatal diagnosis; gene therapy; crime detection.

By knowing the gene location and DNA sequence. This can be done before birth. Cells are studied from the fluid that surrounds the fetus.

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The insertion of normal genes into human cells to correct genetic disorders.

13.3 (cont.)

What is DNA fingerprinting?

A process used by law-enforcement agencies to determine whether suspects have been at a crime scene.

Complete Problem-Solving Lab 13.3, pg. 361.