

Name

Answer Key

Period

Book C: Chapter 4 Study Guide

1. Nucleotides are made of sugar, a phosphate, and a base.
2. The base complementary to cytosine is guanine.
3. The chemical parts that are transferred to the ribosome by transfer RNA and matched to messenger RNA is amino acids.
4. Proteins are substances that scientists can produce through genetic engineering.
5. Replication is the stage at which a DNA molecule is split down the middle.
6. The base complementary to adenine is thymine.
7. A physical or chemical agent that can cause a mutation is called a mutagen.
8. In a cell nucleus, the structures that strands of DNA are bundled into are chromosomes.
9. DNA is made up of subunits called nucleotides.
10. A string of nucleotides that has information for making one trait is gene.
11. Using DNA to identify who committed a crime is DNA fingerprinting.
12. Each set of three bases is a code for a specific amino acid.
13. Who discovered that the amount of adenine in DNA always equals the amount of thymine?  
Erwin Chargaff
14. What did Watson and Crick's model of DNA look like? a long twisted ladder
15. The first step in making a protein is RNA copying DNA.
16. What scientist made images of DNA by using S-ray diffraction? Rosalind Franklin
17. What is the type of mutation where a base is added to the gene? insertion
18. A subunit of DNA that consists of a sugar, a phosphate, and a base is called a nucleotide.