

In your textbook, read about genes and proteins and RNA.

Complete the chart on the three chemical differences between DNA and RNA.

Structure	DNA	RNA
1. strand of nucleotides	a.	b.
2. sugar	a.	b.
3. nitrogenous base	a.	b.

In your textbook, read about the genetic code.

Complete each statement.

4. Proteins are made up of _____.
5. There are twenty different types of _____.
6. The message of the DNA code is information for building _____.
7. Each set of three nitrogenous bases that codes for an amino acid is known as a _____.
8. The amino acid _____ is represented by the mRNA codon ACA.
9. _____ and _____ are mRNA codons for phenylalanine.
10. There can be more than one _____ for the same amino acid.
11. For any one codon, there can be only one _____.
12. The genetic code is said to be universal because a codon represents the same _____ in almost all organisms.
13. _____, _____, and _____ are stop codons.
14. _____ and _____ are amino acids that are each represented by only one codon.

Chapter 11 DNA and Genes, continued

Reinforcement and Study Guide

Section 11.2 From DNA to Protein

In your textbook, read about transcription from DNA to mRNA.

Complete each statement.

15. Proteins are made in the cytoplasm of a cell, whereas DNA is found only in the _____.
16. The process of making RNA from DNA is called _____.
17. The process of transcription is similar to the process of DNA _____.
18. _____ carries information from the DNA in the nucleus out into the cytoplasm of the cell.
19. mRNA carries the information for making proteins to the _____.

In your textbook, read about translation from mRNA to protein.

Label the diagram. Use these choices: transfer RNA (tRNA), amino acid, amino acid chain, codon, anticodon, messenger RNA (mRNA), ribosome.

