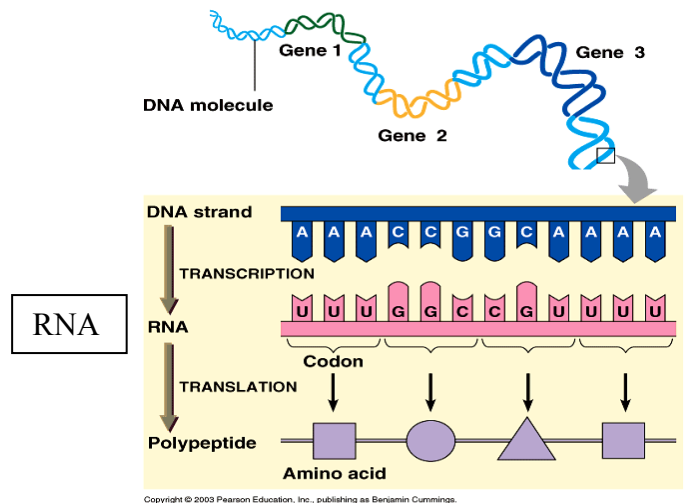
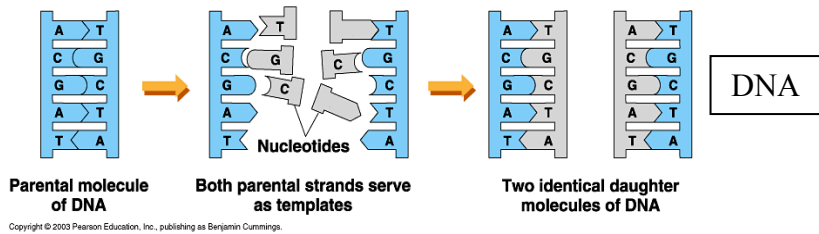


CHAPTER 10 - Molecular Biology of the Gene

Chapter Reading Guide

1. Describe the experiments of Griffith and Hershey and Chase which demonstrated that DNA is the genetic material.

2. Compare the structure of DNA and RNA.



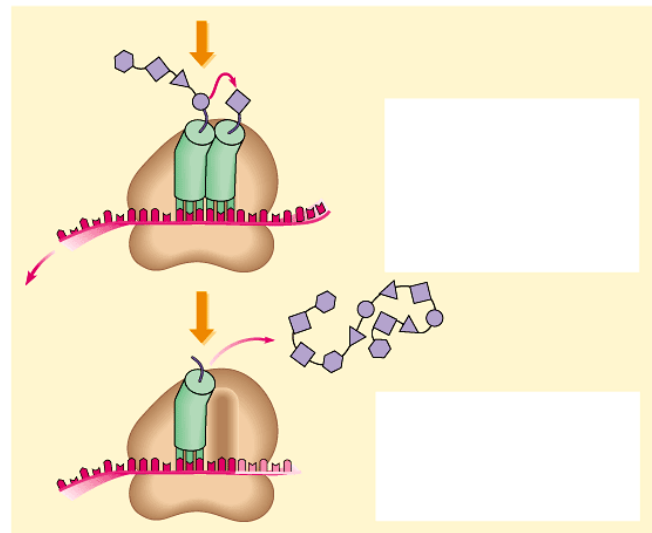
3. Explain how the structure of DNA facilitates its replication. Then describe the process of DNA replication.

4. Describe the locations, reactants, and products of transcription and translation.

5. Explain how RNA is produced. Explain how eukaryotic RNA is processed before leaving the nucleus.

6. Explain how tRNA functions in the process of translation.

7. Label the diagram of the overall process of transcription and translation then write a brief description of the overall process.

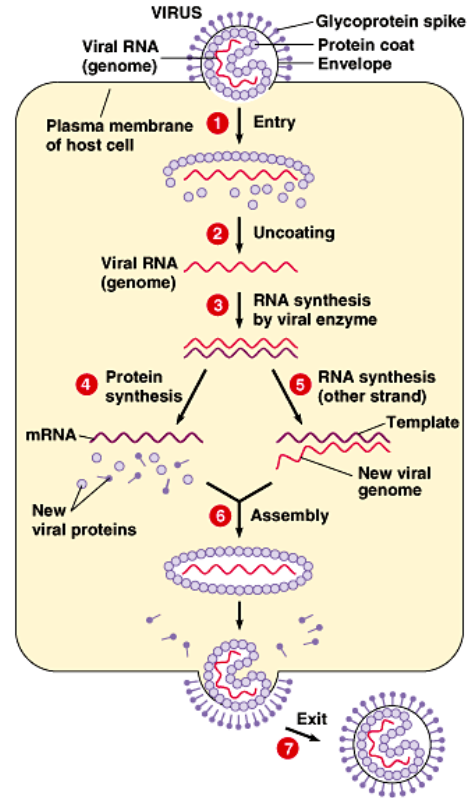


Copyright © 2003 Pearson Education, Inc., publishing as Benjamin Cummings.

8. Describe the major types of mutations and their possible consequences.

9. (a) Describe the reproductive cycle of an enveloped virus. Explain how the herpes virus is different from this cycle.

(b) Describe the most common characteristics of plant viruses.



Copyright © 2003 Pearson Education, Inc., publishing as Benjamin Cummings.

10. Explain what the authors mean when they say that molecular geneticists have “a love-hate relationship” with viruses.