Chapter 12 Review Guide

Key Terms

Virulent
Transformation
Bacteriophage
Double helix
Nucleotide
Deoxyribose
Base-pairing Rule
Complementary
DNA Replication
DNA Helicase
Replication Fork
DNA Polymerase
DNA Ligase
Template
Parental Strand
Mutation
Semi-Conservative

Key Concepts

How did Griffith's experiment contribute to the discovery of DNA as the molecule of heredity?

Explain Hershey and Chase's experiment in detail. What did this experiment finally prove?

Who are the two scientists credited with the discovery of DNA's structure? When?

What did Rosalind Franklin contribute to the discovery of the structure of DNA?

What is a nucleotide and what are its three parts?

What is the shape of DNA?

Describe the complementary relationship of DNA. How do the base-pairing rules contribute to this?

What are the four nitrogen bases and how do they pair up?

What are the two purines? What are the two pyrimidines?

Be able to label the parts of the DNA double helix.

What is an error in our DNA called? What checks for them during DNA Replication? What are the three possible outcomes of mutations?

If the following was a strand of DNA, what would it look like after DNA Replication? Label the parental template strands and new strands.

AATTGCGCTTAGGGCCTA
TTAACGCGAATCCCGGAT