



Name

Period

Date

SECTION

8.1

IDENTIFYING DNA AS THE GENETIC MATERIAL

Study Guide

KEY CONCEPT

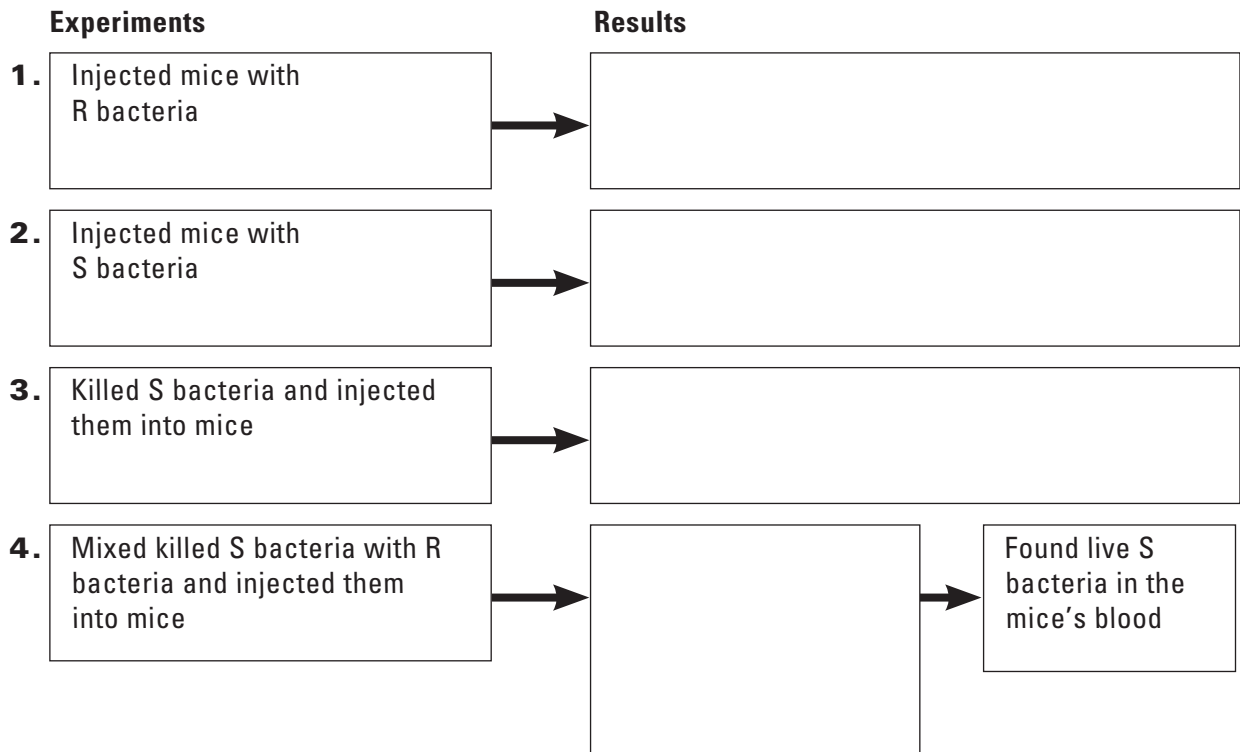
DNA was identified as the genetic material through a series of experiments.

VOCABULARY

bacteriophage

MAIN IDEA: Griffith finds a “transforming principle.”

Write the results of Griffith’s experiments in the boxes below.



5. Which type of bacteria caused disease, the S form or the R form?

6. What conclusions did Griffith make based on his experimental results?

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CHAPTER 8
From DNA to Proteins

Section 8.1 STUDY GUIDE CONTINUED

MAIN IDEA: Avery identifies DNA as the transforming principle.

7. Avery and his team isolated Griffith's transforming principle and performed three tests to learn if it was DNA or protein. In the table below, summarize Avery's work by writing the question he was asking or the results of his experiment.

Avery's Question	Results
What type of molecule does the transforming principle contain?	
	The ratio of nitrogen to phosphorus in the transforming principle is similar to the ratio found in DNA.
Which type of enzyme destroys the ability of the transforming principle to function?	

MAIN IDEA: Hershey and Chase confirm that DNA is the genetic material.

8. Proteins contain _____ but very little _____.
9. DNA contains _____ but no _____.
10. Summarize the two experiments performed by Hershey and Chase by completing the table below. Identify what type of radioactive label was used in the bacteriophage and whether radioactivity was found in the bacteria.

Experiment	Bacteriophage	Bacteria
Experiment 1		
Experiment 2		

Vocabulary Check

11. Explain what a bacteriophage is and describe or sketch its structure.
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