



SECTION
6.3

MENDEL AND HEREDITY
Study Guide

KEY CONCEPT

Mendel’s research showed that traits are inherited as discrete units.

VOCABULARY

trait	purebred	law of segregation
genetics	cross	

MAIN IDEA: Mendel laid the groundwork for genetics.

1. What is genetics?

2. Whose early work is the basis for much of our current understanding of genetics?

3. How did Mendel’s views on inheritance differ from the views of many scientists of his time?

MAIN IDEA: Mendel’s data revealed patterns of inheritance.

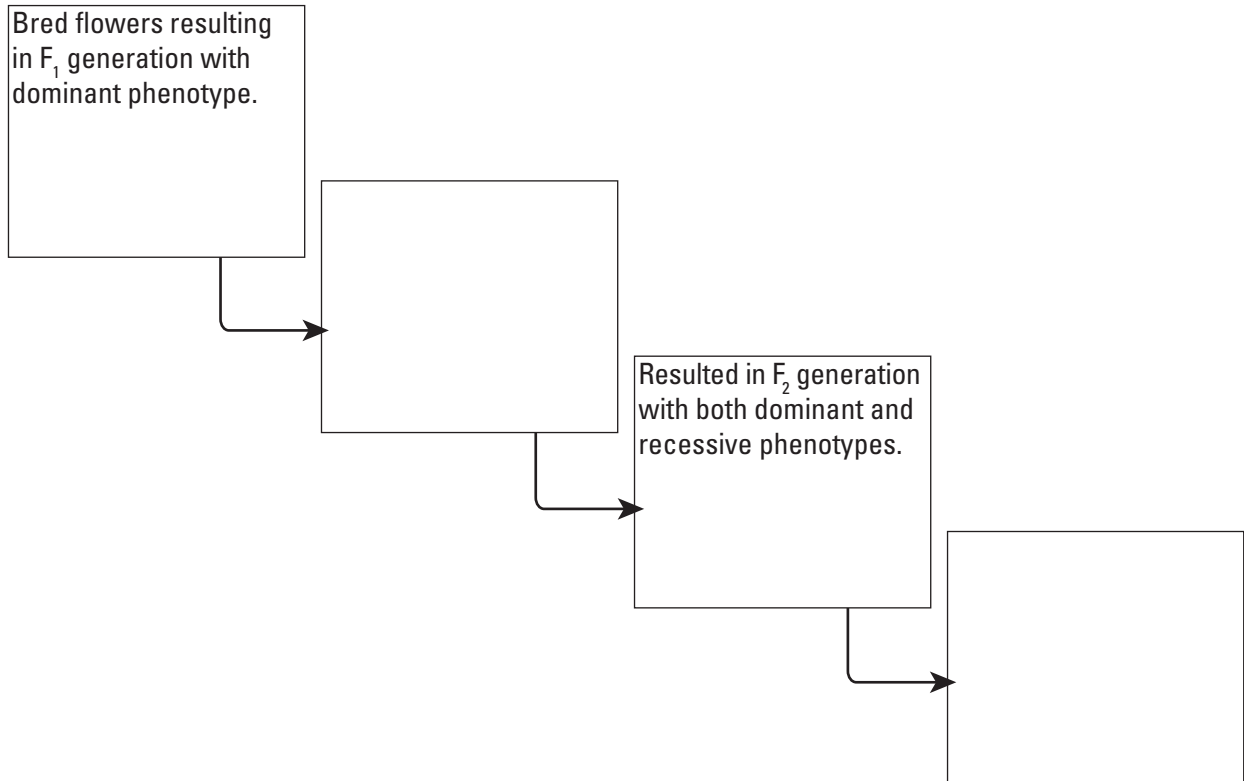
In designing his experiments, Mendel made three important choices that helped him see patterns of inheritance. In the table below, list Mendel’s three choices and write an example of how he put each of these choices into action.

Mendel’s Choices	Example
4.	
5.	
6.	

7. Why did Mendel use pea plants?

Section 6.3 STUDY GUIDE CONTINUED

8. Fill in the sequence diagram below to summarize Mendel's experimental process.



9. Mendel concluded that traits are inherited as “discrete units.” What do we call these discrete units today?

10. What two conclusions make up Mendel's law of segregation?

Vocabulary Check

11. *Segregation* means “separation.” What is “segregated” in Mendel's law of segregation?

12. What does “purebred” mean?
