

Chapter 11 Introduction to Genetics **Section Review 11-5**

Reviewing Key Concepts

Multiple Choice *On the lines provided, write the letter of the answer that best completes the sentence or answers the question.*

- _____ 1. Which of the following structures assort independently?
 a. genes c. chromosomes
 b. crossovers d. genotypes
- _____ 2. Genes on the same chromosome
 a. never separate. c. always separate.
 b. sometimes separate. d. don't show linkage.

Reviewing Key Skills

3. **Applying Concepts** What conclusions did Morgan arrive at with his experiments on fruit flies? Why did they extend Mendel's conclusions?

4. **Applying Concepts** Why didn't Mendel notice linkage?

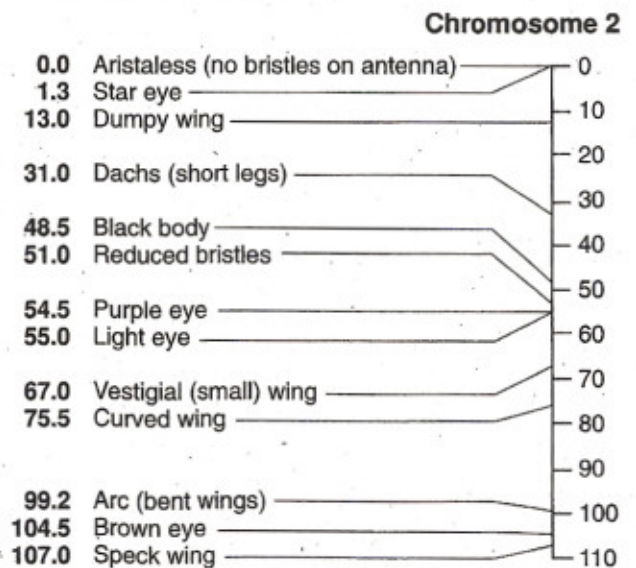
5. **Applying Concepts** What is one benefit of crossover events to organisms during meiosis?

Interpreting Graphics *Use the diagram below to answer the following questions.*

6. Name the type of diagram that shows locations of genes on a chromosome.

7. Which two genes in the diagram are most likely to be separated due to crossing-over? _____

8. Name a pair of genes in the diagram that are unlikely to be separated as the result of crossing-over. Explain your answer.



© Pearson Education, Inc. All rights reserved.

Compare/Contrast Table

Types of Genetic Disorders

Using information from the chapter, complete the compare/contrast matrix below to compare different types of genetic disorders. If there is not enough room in the matrix to write your answers, place them on a separate sheet of paper.

Type of Disorder	Cause	Can Be Inherited	Affects Both Males and Females?	Examples
Autosomal	1.	Yes	Yes	2.
Sex-linked	Sex-linked genetic disorders are caused by alleles on the X or Y chromosome.	Yes	3.	Colorblindness, Duchenne muscular dystrophy
Chromosomal	4.	No	Yes	5.