

**CHAPTER 2**  
**INFORMATION**  
**HANDOUT**

BLM 2-3

# How Organisms Get Their Traits

**Goal** • Learn how to interpret a pedigree.

## Did You Know?

Scientists use a tool called a **pedigree** to trace traits in a family. A pedigree is a diagram that shows the history of a trait between generations. Pedigrees are designed to show traits with two expressions, such as curly or straight hair.

Family members are represented in different ways. Look at Figures 1, 2, and 3 below.

Figure 1



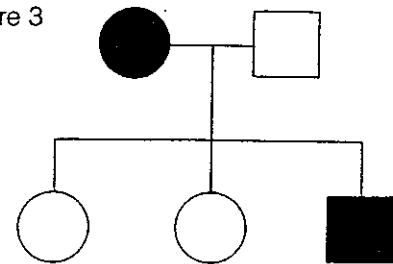
In Figure 1, the square represents a male and the circle represents a female. Shaded shapes represent family members with one expression of a trait, for example, curly hair. Shapes that are not shaded represent members with straight hair. In this example, the female has curly hair.

Figure 2



In Figure 2, two parents are connected with a horizontal line.

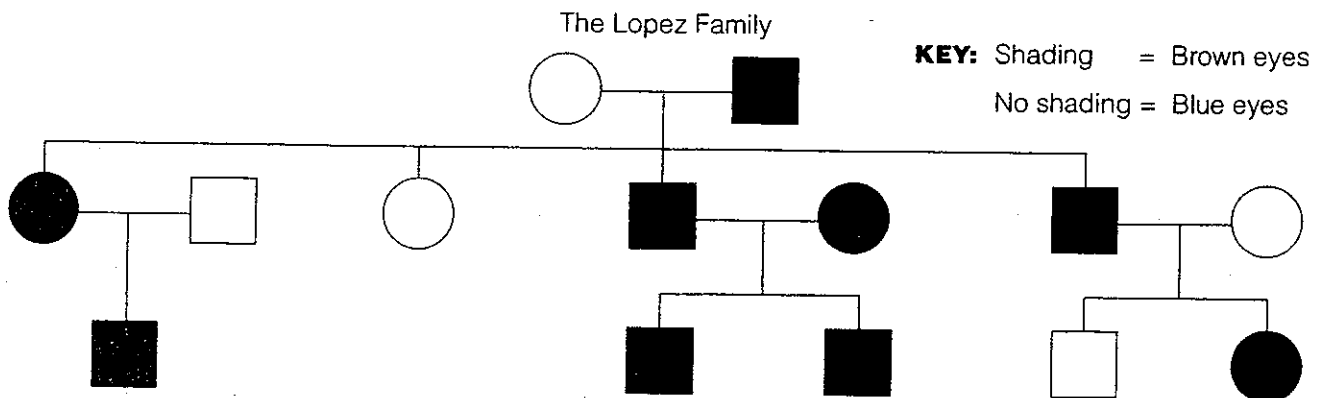
Figure 3



In Figure 3, one or more lines connect the children of these parents. The oldest children are placed on the left and the youngest on the right. In this example, there are three children. The oldest is female. Only the male child has curly hair.

## What to Do

Use the diagram below to answer the following questions. The shaded parts of the diagram are used to identify family members who have brown eyes.



# How Organisms Get Their Traits

(continued)

## Questions

1. How many children did Mr. and Mrs. Lopez have? \_\_\_\_\_
2. What do the circles represent? \_\_\_\_\_
3. How many of the Lopez children were males? \_\_\_\_\_
4. Was the oldest Lopez child a girl or a boy? \_\_\_\_\_
5. How many of the Lopez children have blue eyes? \_\_\_\_\_
6. How many generations of the family are shown? \_\_\_\_\_
7. What colour eyes does Mr. and Mrs. Lopez's granddaughter have? \_\_\_\_\_
8. (a) What colour eyes occur most frequently in the Lopez family? \_\_\_\_\_  
(b) What might this suggest?

- 
9. Why should you include as many generations as possible when constructing a pedigree?
- 
- 
-