



## **The Work of Gregor Mendel**

Chapter 11-1 p. 263-266

1. "Inheritance," has two meanings. What are the similarities and differences between the two meanings?
2. With what specimen and in what setting (for example in the laboratory) did Gregor Mendel study genetics?
3. What does "true-breeding" mean?
4. Draw a pea plant flower. Label the petals, the male parts, and female parts. See (Figure 11-2)
5. Draw a picture that compares self-pollination and cross-pollination.
6. Do pea flowers naturally cross-pollinate or self-pollinate? Why?
7. Describe how Mendel cross-pollinated pea plant flowers.
8. What pea plant variations exist? Use Figure 11-3 to list three.
9. Why did Mendel choose to study the seven characters listed across the top of Figure 11-3? Give an example
10. What is a hybrid?
11. When Mendel crossed a tall and short plant did their size blend to form offspring with medium height? What was the height of the offspring? Why?
12. What allele was dominant in seed SHAPE? What allele was recessive in seed SHAPE?

## **Human Heredity**

Ch 14-1 page 341-342

13. What is a karyotype?
14. How many chromosomes are in a typical human body cell?
15. How many chromosomes are in a sperm or egg?
16. How many sex chromosomes are in a typical human cell? How many autosome?
17. The cells of a female contain which sex chromosomes?
18. Which sex chromosomes do the cells of males have?
19. Since females produce eggs, which sex chromosomes could a human egg contain?
20. Since males produce sperm, which sex chromosomes could a human sperm contain?