

Genetics

Name:

Mendel & His Peas

Period:

Use Chapter 6, Section 1 of your textbook to answer the questions below. The word banks can be used to fill out the sentences below them.

cross-pollination female genetics heredity male traits

Section 1: Mendel and His Peas (p.174)

1. It is called _____ when traits pass from parents to offspring.
2. Studies and experiments in the field of _____ started about 100 years ago.
3. Genetics studies how _____ get inherited.

Before Mendel (p.174)

- _____ 4. What idea is it that traits of both parents mix together?
a. dominant inheritance b. recessive inheritance c. blended heredity d. blending inheritance
- _____ 5. What did Mendel's experiments show about blending inheritance?
a. Blending inheritance is always correct. c. Blending inheritance is NEVER correct.
b. Blending inheritance is NOT always correct. d. Blending inheritance only works with plants.

Gregor Mendel's Work (p.174)

6. In what year was Gregor Mendel born? _____
- _____ 7. What organism did Mendel study?
a. rabbits b. monks c. fruit trees d. peas



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Self-Pollinating Peas (p.175)

8. Pea plants have both _____ and _____ reproductive parts.

Match the correct description with the correct term. Write the letter in the space provided.

- _____ 9. Sperm (pollen) from one plant fertilizes the eggs of another plant. a. self-pollinating
- _____ 10. Sperm (pollen) from one plant fertilizes the eggs of the same plant. b. true breeding
- _____ 11. Self-pollinating plant offspring have the same traits as the parent. c. cross-pollinating
- _____ 12. Why did Mendel study pea plants?
a. Pea plants can self-pollinate. c. Pea plants don't have pollen.
b. Pea plants can cross-pollinate. d. Pea plants don't have seeds.

13. Look at Figure 2. What kind of pollination requires the help of animals or wind? _____

turn over for more questions

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characteristic trait

Characteristics (p.176)

14. A _____ is a feature that has different forms in a population.
15. The different forms of characteristics are called _____ .

On the lines below, write a C if a characteristic is described, or a T if a trait is described.

- _____ 16. hair color
- _____ 17. brown hair
- _____ 18. red hair
- _____ 19. purple flowers
- _____ 20. flower color
- _____ 21. white flowers

Mix and Match (p.176)

- _____ 22. What kind of pea plants did Mendel use for each trait he studied?
a. true-breeding plants b. white-flowered plants c. wild plants d. purple-flowered plants
- _____ 23. Why did Mendel remove the anthers from one plant when he cross-pollinated two pea plants?
a. so the plant would not self-pollinate c. so both plants formed seeds
b. so the plant would not form seeds d. so the plants would not cross-pollinate