

## Section 24-2 Seed Development and Germination (pages 618-621)



### Key Concepts

- How do fruits form?
- How are seeds dispersed?
- What factors influence the dormancy and germination of seeds?

### Seed and Fruit Development (page 618)

1. What is a fruit? \_\_\_\_\_
2. What happens as angiosperm seeds mature after fertilization is complete?  
\_\_\_\_\_  
\_\_\_\_\_
3. The outer layer of the seed that protects the embryo and its food supply is called a(an) \_\_\_\_\_.
4. Is the following sentence true or false? Both cucumbers and tomatoes are fruits.  
\_\_\_\_\_
5. Circle the letter of each sentence that is true about fruits.
  - a. As seeds mature, the ovary walls thicken to form a fruit.
  - b. Fruits can carry one seed or several seeds.
  - c. A fruit is a ripened ovary that encloses a seed or seeds.
  - d. The inner wall of the ovary never touches the seed.

### Seed Dispersal (page 619)

6. Why are seeds that are dispersed by animals typically contained in fleshy nutritious fruits? \_\_\_\_\_  
\_\_\_\_\_
7. Circle the letter of why seeds dispersed by animals are covered with tough coatings.
  - a. The seeds need to be able to float on water.
  - b. The coatings enable the seeds to pass through an animal unharmed.
  - c. The seeds need to be digested by the animal that eats them.
  - d. The coatings prevent the seeds from being eaten by animals.
8. Why are seeds dispersed by wind or water typically lightweight?  
\_\_\_\_\_  
\_\_\_\_\_
9. How are the seeds of ash and maple trees dispersed long distances from the parent plants? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. What adaptation does a coconut seed have that helps its dispersal?

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### Seed Dormancy (page 620)

11. What is dormancy?

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12. What are two environmental factors that can cause a seed to end dormancy and germinate?

a. \_\_\_\_\_ b. \_\_\_\_\_

13. What are two purposes served by seed dormancy?

a. \_\_\_\_\_

b. \_\_\_\_\_

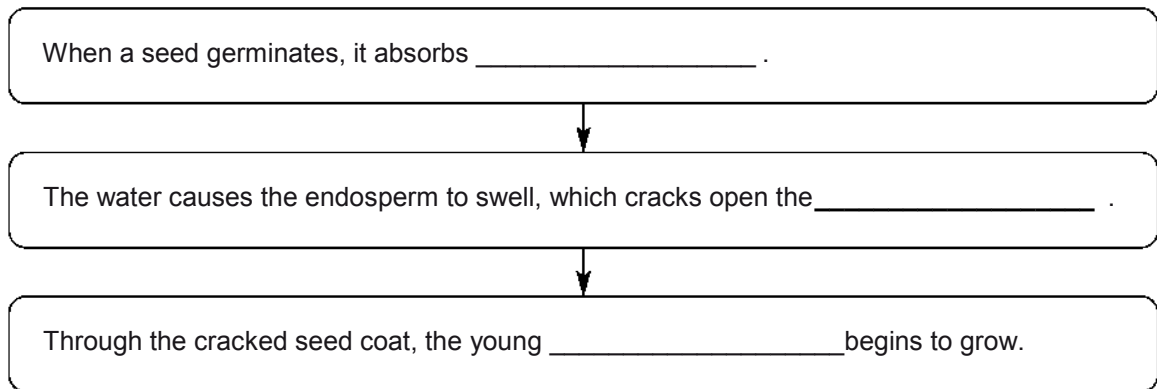
14. Is the following sentence true or false? Some pine tree seeds remain dormant until the high temperatures generated by a forest fire cause cones to open and release the seeds.

### Seed Germination (page 621)

15. What is seed germination?

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16. Complete the flowchart about seed germination.



17. Circle the letter of each sentence that is true about seed germination.

- a. In some dicots, the cotyledons protect the first foliage leaves.
- b. In most monocots, the cotyledon remains within the seed.
- c. In some dicots, the cotyledons remain below the soil and provide food for the seedling.
- d. In most monocots, the cotyledon emerges above ground to protect the leaves.