

LS 12-3 Directed Reading A (p308-313)

Section: Seed Plants

1. How are gymnosperms and angiosperms different?

CHARACTERISTICS OF SEED PLANTS

Fill in each blank with either “seedless plants” or “seed plants.”

2. In _____, the gametophytes do not live independently of the sporophytes.
3. The gametophytes of _____ form within the reproductive structures of the sporophyte.
4. The sperm of _____ need water to swim to the eggs of female gametophytes.
5. The sperm of _____ can reach the eggs without the help of water.
6. The sperm of _____ form inside of pollen, which is carried by wind or by animals
7. The most common plants on Earth are _____.

Directed Reading A *continued*

THE STRUCTURE OF SEEDS

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

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| _____ 8. the young plant within a seed | a. cotyledons |
| _____ 9. structure that surrounds and protects the young plant | b. fertilization |
| _____ 10. seed leaves of a young plant | c. food storage |
| _____ 11. joining of sperm and egg | d. seed coat |
| _____ 12. often the purpose of the cotyledons | e. sporophyte |
| 13. Name two advantages of seeds over spores. | |

GYMNOSPERMS

- _____ 14. Seed plants that do not have flowers or fruit are called
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|-----------------|------------------|
| a. sporophytes. | c. gametophytes. |
| b. angiosperms. | d. gymnosperms. |
- _____ 15. Gymnosperm seeds are usually protected by
- | | |
|------------|------------|
| a. leaves. | c. fruits. |
| b. cones. | d. humans. |
- _____ 16. The most economically important gymnosperms are the
- | | |
|--------------|-----------------|
| a. conifers. | c. cycads. |
| b. ginkgoes. | d. gnetophytes. |
- _____ 17. Three things that conifers are used for are
- | |
|---|
| a. building materials, cancer drugs, and gardens and parks. |
| b. paper products, resin, and syrup. |
| c. allergy drugs, leather, and resin. |
| d. building materials, fresh fruit, and gardens and parks. |

Directed Reading A *continued*

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

- | | |
|---|----------------|
| _____ 18. most are evergreens | a. ginkgoes |
| _____ 19. group of gymnosperms that are shrubs that grow in dry areas | b. cycads |
| _____ 20. group of gymnosperms with only one living species | c. conifers |
| _____ 21. gymnosperms that grow in the Tropics | d. gnetophytes |
22. During the pine life cycle, sex cells are produced in the _____.
23. The male _____ of gymnosperms are found in pollen.
24. Pollen is carried from the male cone to the female cone by _____.
25. Some pine cones release seeds only during _____.
26. The transfer of pollen from the male reproductive structures to the female reproductive structures of seed plants is called _____.

ANGIOSPERMS

- _____ 27. About how many species of angiosperms can be found today?
- a. over 1,000
 - b. at least 235,000
 - c. just a few
 - d. over one million
28. How are angiosperm fruits and seeds transported to new areas?

Directed Reading A *continued*

Each of the following phrases describes, or is an example of, either a monocot or a dicot. In the space provided, write M for a monocot and D for a dicot.

_____ 29. plant that has one cotyledon (seed leaf)

_____ 30. vascular tissue in bundles that are scattered

_____ 31. plant that has leaves with branching veins

_____ 32. flower parts in threes

_____ 33. vascular tissue in a ring

_____ 34. flower parts in fours or fives

35. Explain the difference between the way that a field mouse and the way that an owl obtain food from flowering plants.

36. List three ways that people use flowering plants.
