

# Structure and Function in Living Systems

Name: \_\_\_\_\_

## What is a Plant?

Period: \_\_\_\_\_

Use Chapter 12, Section 1 of your textbook to answer the questions below. The word banks can be used to fill out the sentences below them.

animal asexually cell membrane cell walls characteristics chloroplasts cuticle  
eggs gametophyte photosynthesis sexual sperm sporophyte thicker

### Section 1: What Is a Plant? (p.360)

1. All plants share certain \_\_\_\_\_ .

#### Plant Characteristics

##### Cuticles

2. The \_\_\_\_\_ is the waxy layer that keeps plants from drying out.

3. If the climate is dry, the plants there will have a \_\_\_\_\_ cuticle.

##### Photosynthesis

4. Organelles called \_\_\_\_\_ make plants green and capture energy from the sun.

5. What type of cells do not have chloroplasts? \_\_\_\_\_ cells

6. \_\_\_\_\_ is the process plants use to make food.

##### Cell Walls (p.361)

7. Because plants do not have skeletons, they need \_\_\_\_\_ to support them.

8. Look at Figure 2. A \_\_\_\_\_ lies beneath the cell wall.

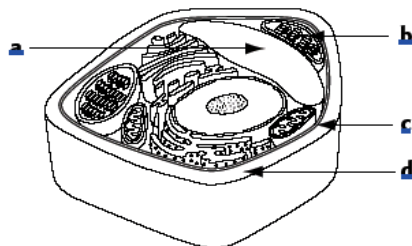
Look at Figure 2, then match the labels to the picture. Write the letters in the spaces provided.

\_\_\_\_\_ 9. cell wall

\_\_\_\_\_ 10. vacuole

\_\_\_\_\_ 11. cell membrane

\_\_\_\_\_ 12. chloroplast



##### Reproduction

\_\_\_\_\_ 13. Which of the following is produced during the sporophyte stage?

- a. sperm      b. eggs      c. spores      d. sex cells

14. A spore grows into a new plant called a \_\_\_\_\_ .

15. Male gametophytes produce \_\_\_\_\_ , and \_\_\_\_\_ are made by female gametophytes.

16. If an egg is fertilized by sperm, this is called \_\_\_\_\_ reproduction.

17. A fertilized plant egg eventually grows into a \_\_\_\_\_ .

18. Most plants can reproduce sexually or \_\_\_\_\_ .

**turn over for more questions**

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Name:

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Period:

#### Plant Classification (p.362)

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

- |  |                      |
|--|----------------------|
| _____ 19. is a flowering seed plant                              | a. gymnosperm        |
| _____ 20. does not have tissues for moving water and nutrients   | b. vascular plant    |
| _____ 21. is a vascular plant that has no flowers                | c. angiosperm        |
| _____ 22. has specialized tissues for moving water and nutrients | d. nonvascular plant |

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

- |  |                            |
|--|----------------------------|
| _____ 23. has seeds but no flowers         | a. seedless vascular plant |
| _____ 24. has vascular tissue but no seeds | b. angiosperm              |
| _____ 25. has both flowers and seeds       | c. gymnosperm              |

#### The Origin of Plants (p.363)

Use the terms from the following list to complete the sentences below.

ancestor      cell walls      green algae      photosynthesis      plants

26. Green algae are not \_\_\_\_\_.
27. Green algae and plants have \_\_\_\_\_ that are a lot alike.
28. Green algae and plants both make food through \_\_\_\_\_.
29. Green algae and plants might share a common \_\_\_\_\_.
30. Look at Figure 4. Scientists think that the common ancestor of modern green algae and ferns was an ancient species of \_\_\_\_\_.