Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading A

Section: What Is a Plant?

1. Why couldn't you eat much without plants?

_____

_____

_____

PLANT CHARACTERISTICS

_____ **2.** What is the name of the green pigment that captures energy from the sun?

a. organelles
b. chlorophyll
c. carbon dioxide
d. chloroplasts

_____ **3.** Plants use energy from sunlight to make food from carbon dioxide and water. This process is called

a. chloroplasts.
b. organelles.
c. photosynthesis.
d. producers.

_____ **4.** What does the cuticle do?

a. It captures energy from the sun.
b. It creates air.
c. It keeps plants from drying out.
d. It grows into chloroplasts.

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

_____ **5.** rigid structure that surrounds a plant cell

_____ **6.** structure that contains chlorophyll

_____ **7.** chamber that stores water

_____ **8.** a substance that forms a hard material in cell walls

_____ **9.** structure that lies beneath the cell wall

a. vacuole
b. cell membrane
c. cell wall
d. carbohydrates
e. chloroplast

10. Plants make spores in the _____ stage.

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Directed Reading A *continued*

11. When the spores of some plants grow, the new plants are called _____.

12. The fertilized egg of a gametophyte grows into a(n) _____.

PLANT CLASSIFICATION

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

_____**13.** an example of a nonvascular plant

_____**14.** plants without specialized conducting tissues

_____**15.** an example of a seedless vascular plant

_____**16.** plants have tissues to deliver water and nutrients from one part of the plant to another

_____**17.** vascular seed plant that does not flower

_____**18.** flowering plant with seeds inside a fruit

a. nonvascular plants
b. vascular plants
c. gymnosperm
d. angiosperm
e. fern
f. liverwort

THE ORIGIN OF PLANTS

19. Scientists think modern green algae and plants are descended from ancient green algae that lived in the oceans. What are the similarities between modern green algae and plants?

Answer Key

Directed Reading A

SECTION: WHAT IS A PLANT?

1. Almost all food is made from plants or from animals that eat plants.
2. B
3. C
4. C
5. C
6. E
7. A
8. D
9. B
10. sporophyte
11. gametophytes
12. sporophyte
13. F
14. A
15. E
16. B
17. C
18. D
19. Answers will vary. Sample answers: Modern green algae and plants contain the same kinds of chlorophyll. They both make food through photosynthesis. They both store energy as starch. They both have a two-stage life cycle. They have similar cell walls.

SECTION: SEEDLESS PLANTS

1. nonvascular plants: liverworts, mosses, hornworts; seedless vascular plants: horsetails, ferns, club mosses
2. B
3. C
4. C
5. D
6. Answers will vary. Sample answer: They are usually the first plants to live in a new environment. When they die, they form a thin layer of soil that new plants can grow in. They reduce soil erosion. They are food for some animals. Some animals use them for nesting material. Humans can dry and burn some types of nonvascular plants as a fuel. Some types of nonvascular plants are used in potting soil.
7. club mosses
8. rhizome
9. The fern gametophyte is tiny, green, and heart-shaped.
10. fiddleheads
11. C
12. F
13. H
14. D
15. G
16. A
17. B
18. E
19. Answers will vary. Sample answers: They help form soil. They help prevent soil erosion. In rocky areas, ferns can play a role in the formation of communities. Ferns add to soil depth, which allows other plants to grow.
20. Answers will vary. Sample answer: ferns and some club mosses
21. Answers will vary. Sample answer: fiddleheads of some ferns, young horsetail shoots and roots
22. Their remains formed coal, which is used for energy.

SECTION: SEED PLANTS

1. Answers will vary. Sample answer: Gymnosperms do not have flowers or fruits. Angiosperms have flowers and fruits and the fruits protect the seeds.
2. seed plants
3. seed plants
4. seedless plants
5. seed plants
6. seed plants
7. seed plants
8. E
9. D
10. A
11. B
12. C