

Name _____ Date _____ Bell _____

Unit 4: Lesson 4- Introduction to Plants

Vocabulary

1. Producers (page 325)-

2. Photosynthesis (page 325)-

3. Chlorophyll (page 325)-

4. Vascular System (page 326)-

5. Seed (page 330)-

6. Pollen (page 330)-

7. Gymnosperms (page 330)-

8. Angiosperms (page 330)-

What are the characteristics of plants? Pages 324-325

1. What are the characteristics of plants?

2. What are the two stages during a plants life cycle?

3. What is the sporophyte stage?

4. What is the gametophyte stage?

5. What are the functions of the cell walls?

6. How are a cell wall and cell membrane different from one another?

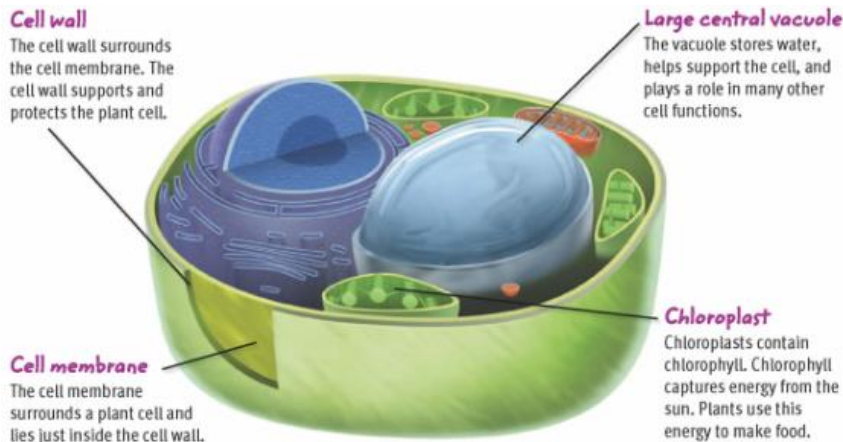
7. What is the function of the vacuoles?

8. How do plants make their own food?

9. What is photosynthesis?

10. Why is chlorophyll so important to plants?

11. In which part of the cell is chlorophyll found in?



What are the Two Main Groups of Plants? Pages 326-327

12. What are the two main groups of plants?

13. What is a vascular system?

14. How are nonvascular plants different from vascular plants?

15. What are some examples of nonvascular plants?

16. How do nonvascular plants get their nutrients if they do not have a vascular system?

17. Why are nonvascular plants small?

18. What are vascular plants?

19. What are two things that all vascular plants have?

20. What two tissues do vascular plants use?

21. Why are vascular plants tall?

22. What two systems do vascular plants have?

23. What is the root system?

24. What is the shoot system?

25. What are the three types of organs in vascular plants?

26. **10 Compare** In the table below, compare the functions of the three parts of the plant.

Roots	Stems	Leaves

How are Seedless Nonvascular Plants Classified? Page 328

27. How do seedless plants reproduce? _____
28. What are three examples of seedless nonvascular plants?

29. What are some characteristics of Moss?

30. What are rhizoids?

31. What are liverworts?
32. What are hornworts?
33. Liverworts and hornworts are both are found in what type of environment?

34. What do they both have to hold them in place? _____



Moss



Liverworts



Hornworts

How are Seedless Vascular Plants Classified? Page 329

35. What are some examples of seedless vascular plants?

36. What are some characteristics of seedless vascular plants?

37. What are some characteristics of Ferns and Whisk Ferns?

38. How are Whisk Ferns different from Ferns?

39. What are some characteristics of Horsetails?

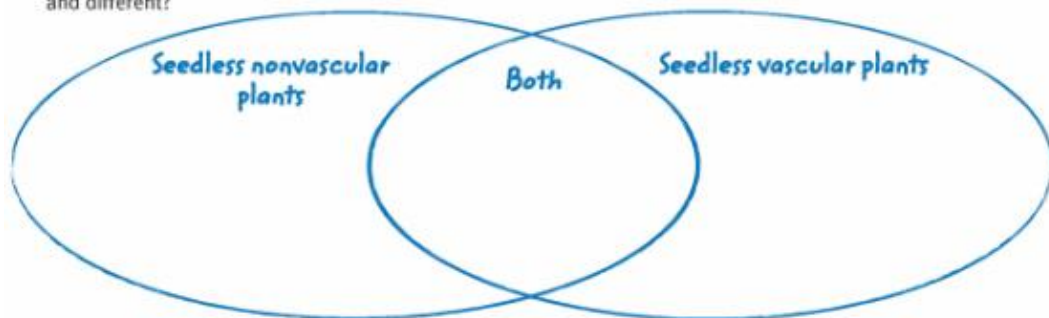
40. Where do Horsetail grow?

41. What are Club Mosses?

42. What environment can you find Club Moss in?

43.

13 Compare In the graphic organizer below, compare seedless nonvascular plants to seedless vascular plants. How are they similar and different?



Ferns



Horsetail



Club Moss



How are Seed Plants Classified? Page 330

44. What are seed plants?

45. What are seeds?

46. What do seeds produce?

47. What are pollen?

48. What does a sperm cell fertilize with?

49. When a sperm cell and egg cell fertilize together, what develops from this?

50. Seed plants are classified based on what?

51. What are Gymnosperms?

52. What are three types of gymnosperms?

53. What are characteristics of cycads?

54. What are characteristics of ginkgoes?

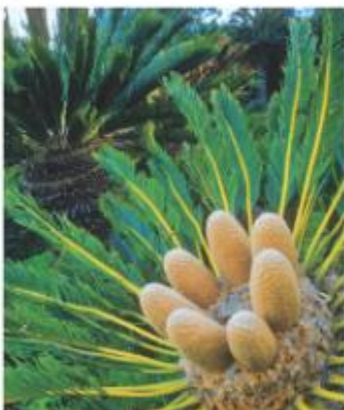
55. What is the only type of ginkgoes alive today?

56. What are characteristics of conifers?

57. What are examples of conifers?

58. Which type of gymnosperm does not reproduce with cones?

Cycads are gymnosperms found in the tropics that have short stems and palm-like leaves. Cycads produce seeds on large, protective cones. Only about 140 species of cycads still exist.



Ginkgoes are gymnosperms that are pollution tolerant and are used in traditional medicine. Only the *Ginkgo biloba* is still alive today. Its leaves are fan-shaped, and its seeds are round and not covered by a cone.



Conifers are the most common type of gymnosperm. This group includes pine trees, cedars, redwoods, and junipers. They produce seeds in cones and have needle-like leaves. Many are green all year.



How are Seed Plants Classified Continued... Page 331

59. What are angiosperms?

60. What is the function of the flowers?

61. What are some parts of a flower?

62. What are sepals?

63. Flower petals are: _____

64. What is the function of stamen?

65. Where is pollen made? _____

66. What is the pistil? _____

67. What is the function of the seeds?

68. Summarize the similarities and difference between nonvascular and vascular plants?

69. Summarize the similarities and differences between seedless vascular and seed vascular plants?

70. Summarize the similarities and differences between gymnosperms and angiosperms?

71.

16 Label Fill in the structure of each of the flower parts described below.

