

Introduction to Plants Question Guide

Early Ancestors

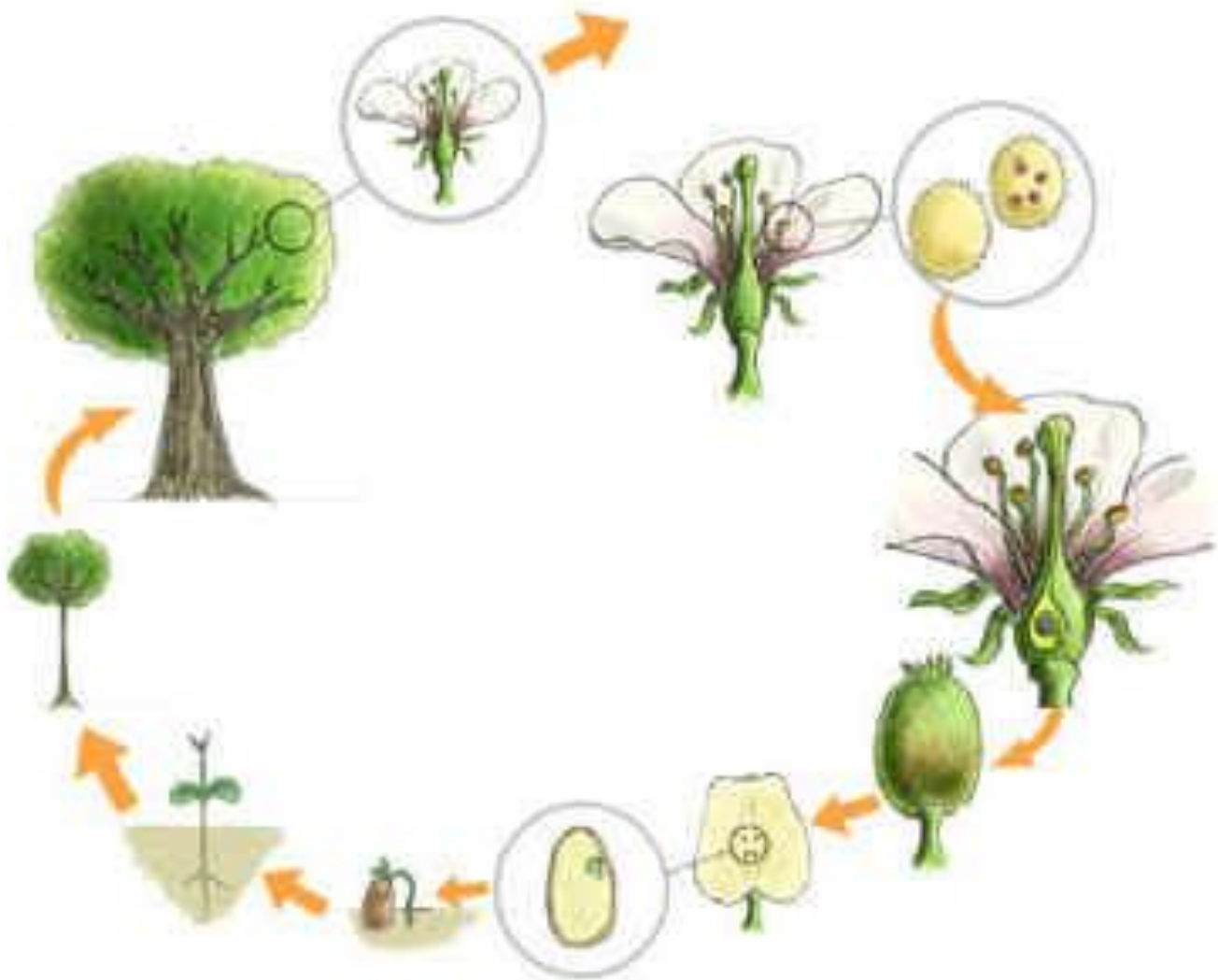
1. The first habitat for plants on earth was _____.
2. Which algal group is most related to early land plants? _____
3. What is this group of algae called? _____
4. List 5 similarities between algae and terrestrial plants.
 - a.
 - b.
 - c.
 - d.
 - e.
5. List 5 helpful adaptations aquatic plants have by being surrounded by water.
 - a.
 - b.
 - c.
 - d.
 - e.
6. Complete the following table explaining how terrestrial plants solved the move onto land.

Plant Adaptations to land	
Problems:	Solutions:
Need Minerals	
Gravity	
Increase in Height to get Light	
Adaptations for drier environment	
Reproduction	

How Are Plants All Alike

7. All plants are _____.
8. Plants can make their own food by a process called _____.
9. Since plants make their own food they are called _____.
10. Plants contain what type of chlorophyll?
11. Where is chlorophyll found in plants?

12. What surrounds the outside of all plant cells and what is it composed of?
13. How do plants store their reserve food? _____
14. The life cycle of plants is known as _____ of _____.
15. The dominant stage of the plant is the diploid ($2n$) _____ stage.
16. The eggs and sperm are produced during the haploid ($1n$) _____ stage.
17. The gametophyte stage produces a multicellular plant _____ that is protected inside an _____.
18. The sporophyte stage produces _____ by _____.
19. Haploid spores undergo _____ to produce the _____ stage.
20. The gametophyte stage makes _____ called the _____ and _____.
21. Label the diagram of alternation of generation. Include the sporophyte and gametophyte generations, the chromosome number ($2n$ or n), and where mitosis and meiosis occur.



Plant Divisions

22. Plants are divided into _____ groups based on the presence or absence of an _____ for carrying water and dissolved _____.
23. What is the transport system for water and minerals called?
24. _____ plants lack vascular tissue and are called _____.
25. In what type of environment must nonvascular plants live?
26. Give an example of a bryophyte.
27. Nonvascular plants can't grow as tall as vascular plants. Explain why.
28. The cells of nonvascular plants must be in _____ contact with water because water moves by _____ from cell to cell.
29. How do the sperm get to the egg in nonvascular plants?
30. Name 3 divisions of nonvascular plants and give an organism found in each division.
- a.
 - b.
 - c.
31. Vascular plants are also called _____.
32. What are the 2 subdivisions of vascular plants?
33. Name 4 divisions of seedless vascular plants and give an example of a plant in each group.
- a.
 - b.
 - c.
 - d.
34. Name the 2 groups of seed-bearing vascular plants.
35. Gymnosperms have _____ seeds found inside cones.
36. Angiosperms have _____ to attract _____ so seeds can be produced.
37. Name the division known as conifers and tell several plants in this group.

38. Name 2 other divisions of gymnosperms and tell a plant in each group.

a.

b.

39. Name the oldest living plant.

40. Name the tallest living plant.

41. What group are these 2 plants in?

42. Angiosperms are called _____ plants.

43. How are seeds formed in angiosperms?

44. Where is the ovary found?

45. Name the male and female parts of a flower.

46. How are fruits formed?

47. Angiosperms are the division _____.

48. What are the 2 subgroups of Anthophyta?

49. Describe the characteristics of monocots.

50. Describe the characteristics of dicots.