

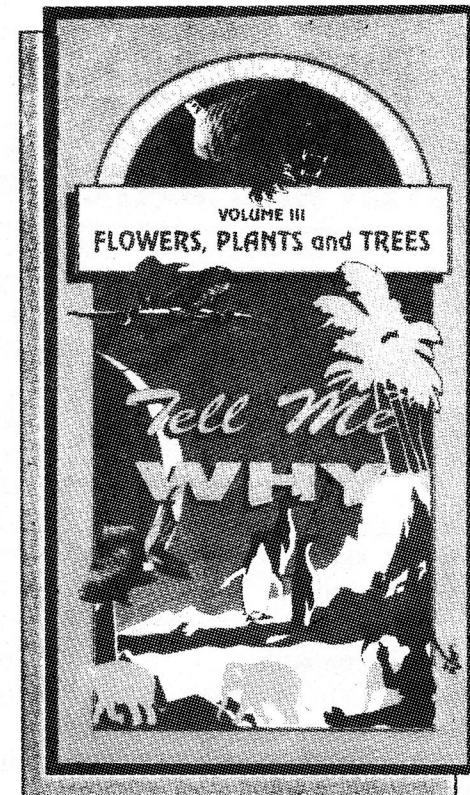
# GLOSSARY

1. ALGA, ALGAE-one-celled water plant(s).
2. AMBER-fossil resin.
3. ANNUAL-a plant that lives for only one year.
4. ANNUAL RING-any of the rings of wood seen in cross sections of the stems of most trees and shrubs, each ring showing a year's growth.
5. ANTHOCYACIN-bright red substance.
6. ANTHOCYANIN-pigments which give flowers the colors we enjoy.
7. AUXIN-plant cell containing growth substances.
8. BACTERIA-microscopic vegetable organism.
9. BAMBOO-tall tropical grass with hollow, wood-like stems.
10. BARK-the covering of the stem of a tree or shrub.
11. BOTANY-the study of plants.
12. BULB-any of various underground plant stems, roots, or buds.
13. CAMBIUM-the layer of tissue between the bark and wood in woody plants, from which new wood and bark develop.
14. CAROTIN-orange substance.
15. CHLOROPHYLL-the green substance in plants.
16. CHLOROPLAST-an oval, chlorophyll-bearing body found outside the nucleus in a cell.
17. COCONUT-the fruit of the coconut palm tree.
18. COCONUT MILK-a sweet, milky fluid found in the hollow center of the coconut.
19. COHESION-the tendency of particles to hold together.
20. COTYLEDON-a seed leaf; earliest leaf or one of the earliest leaves growing out of a seed.
21. DIATOM- the smallest plant.
22. ECOLOGY-the study of the relation of living things to their environment.
23. EMBRYO-animal or plant in the first stage of development.
24. EVERGREEN-having green leaves through out the year.
25. FLOWER-petaled seed-producing part of a plant; blossom.
26. FORESTRY-the science of forests.
27. FUNGUS, FUNGI-a spore-reproduced plant without chlorophyll.
28. GERMINATE-begin to grow.
29. GRAFTING-a shoot or bud of one plant or tree inserted into the stem or trunk of another, where it continues to grow, becoming a permanent part.
30. GRASS-narrow-leaved green plant with seed like fruit.
31. HARDWOOD-any tough, heavy timber with a compact texture; wood other than that from a pine, spruce, or other conifer.
32. HARVEST-the occasion of gathering crops.
33. HYBRID PLANT-a crossbreed of a plant.
34. LEAF-the flat termination of a plant stem.
35. LICHEN-a plant without roots, leaves, flowers.
36. MILDEW-fungus of damp cloth, etc.
37. MOLD-destructive fungus.
38. MUSHROOM-edible fungus.
39. OVARY-the enlarged hollow part of the pistil in angiosperms, containing ovules.
40. OVULE-that part of a plant which develops into a seed.
41. PALAEOBOTANY-the study of fossil plants.
42. PAPER-a thin, flexible material in sheets or leaves, made from rags, wood pulp, or other fibrous material, and used to write or print on, wrap, etc.
43. PENICILLIN-any of a group of fungi growing as green mold on stale bread, ripening cheese, decaying fruit, etc.
44. PERENNIAL-a plant that grows every year.
45. PETAL-a colored leaf of a flower.
46. PHOTOSYNTHESIS-process by which chlorophyll containing plants exposed to sunlight produce carbohydrates.
47. PISTIL-the seed-bearing organ in a flower.
48. PLANT-a young tree, shrub, or herb, ready to put into other soil for growth to maturity; any living thing that cannot move voluntarily, has no sense organs.
49. PLANT ANATOMY-the study of the structure of plants.
50. PLANT PATHOLOGY-the study of the nature of disease in plants.
51. PLANT PHYSIOLOGY-the science of the functioning of living matter in plants.
52. ROOT-the part of a plant usually below the ground, that holds the plant in position, draws water and nourishment from the soil, and stores food.
53. SACHET-a bag of scented powder.
54. SEED-the part of a plant that enables it to reproduce itself; the thing from which a plant grows.
55. SOFTWOOD-any light, easily cut wood.
56. SPORE-one-celled organism.
57. STAMEN-a pollen-bearing organ in a flower, made up of a slender stalk and a pollen sac.
58. STARCH-tasteless vegetable substance found in potatoes, flour, etc., and used for stiffening.
59. SYMBIOSIS-"life together."
60. TOADSTOOL-poisonous mushroom.
61. TRANSPIRATION-the giving off of moisture, etc. through the pores of the skin or through the surface of leaves and other parts of plants.
62. TREE-a tall plant with a woody stem and branches.
63. WEED-a plant that grows where it is not wanted.
64. WOOD-the hard substance beneath the bark of trees.
65. XANTHOPHYLL-yellow substance.

*Tell Me*

**WHY**

**TEACHER'S GUIDE**



**VOLUME III  
FLOWERS, PLANTS & TREES**

## SUGGESTED TEACHING STRATEGIES

1. If available, provide diagrams of the flower and a cross-section of a leaf for students' use.
2. Ask students to bring in samples of leaves and flowers.
3. Arrange for a guest speaker especially related to career opportunities, i.e. - horticulturist, county extension agent, forester.
4. Arrange for a medical laboratory technologist to speak regarding harmful and helpful bacteria.

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## CONCEPTS AND TERMS TO LISTEN AND WATCH FOR

ECOLOGY	BACTERIA	ALGAE
MOLD	PENICILLIN	CHLOROPHYLL
MINERALS	SPONGY ROOTS	STARCH
HYBRID	SEED	EMBRYO
BULB	FLOWER	PISTIL
STAMEN	POLLEN	FRAGRANCE
WEED	CARBON DIOXIDE	OXYGEN
VENUS FLYTRAP	FORESTRY	EVAPORATION
BARK	GRAFTING	PIGMENTS
EVERGREEN	NEEDLES	PLANT PRODUCTS
PAPER	WOOD	AMBER
MOSSSES	FUNGI	LICHEN
MUSHROOM	TOADSTOOL	POISONOUS
PLANT PATHOLOGY	GEOLOGIC TIME	NITROGEN FIXATION
DIATOMS	PLANT HORMONES	AUXINS
ENERGY	PHOTOSYNTHESIS	CROSSBREEDING
TRANSFORMATION	PERENNIAL	VOLATILE OILS
ANNUAL	EPIPHYTES	CAMBIUM
ANTHOCYANINS	COHESION	CHLOROPLASTS
TRANSPIRATION	XANTHOPHYLL	CAROTENE
ANNUAL RINGS	SYMBIOSIS	FOSSILIZATION
CELLULOSE		

## QUESTIONS FOR THOUGHT, DISCUSSION AND FURTHER STUDY

1. What is a paleobotanist? What can be learned from the discoveries of a paleobotanist?
2. What types of plants live symbiotically with nitrogen fixing bacteria?
3. How is the antibiotic Penicillin made?
4. What are the different types of plant hormones? What different effect does each have on a plant? What happens when a plant begins to grow toward a window?
5. Why is it said that during photosynthesis inorganic molecules are transformed into organic chemicals?
6. What are the major functions of roots?
7. How is a hybrid plant variety obtained?
8. What is the purpose of the seed's cotyledons?
9. How are seeds categorized?
10. How are seeds distributed? What adaptations do seeds have?
11. Trace the path of a pollen grain from the male flower part to the egg (OVULE).
12. Diagram the path of water, oxygen, carbon dioxide, and sugar within the cell layers of a leaf.
13. Explain how wood is formed, what the annual rings tell us, and what are the types of wood?
14. Plants produce many products for us other than food and wood. Investigate the plants that produce medicines.
15. Explain more fully the symbiotic (mutualistic) relationship that can be observed in a lichen.
16. What are the three basic types of bacteria as to shape? Research a helpful and harmful example.

## ..... CAREER OPPORTUNITIES .....

BOTANIST	MEDICAL
FORESTER	TECHNOLOGIST
MICROBIOLOGIST	HORTICULTURIST
LANDSCAPER	FARMER
TEACHER	ENVIRONMENTAL
	SCIENTIST