

Germination of Seeds: Simple experiments to illustrate the more important phenomena and requirements of germination and growth, for example, need of air, warmth, and moisture; evolution of carbon dioxide; how and to what extent water is absorbed; root hairs; root cap; region of growth in root.

Spring Flowering Plants: Plant description and identification by means of a flora begun; relation of flower structure to mode of pollination; meaning and significance of cross pollination; structure and expanding of winter buds; adaptation of stem form to habit; spines, prickles, tendrils, their forms and uses; foliage leaves, as in the autumn work of the first year.

SECOND YEAR

September and October

Composites: Study of the inflorescence and flower structure of typical composites, such as dandelion, burdock, and ox-eye daisy.

Weeds: Recognition of common forms; how they spread, and how they may be controlled.

Fungi: Recognition and mode of life of mushroom, puff-ball, polypore, as saprophytic forms; and apple scab, lilac mildew, wheat rust, black knot, or other common type, as a parasitic form.

Physiological Experiments: Roots: Simple experiments to illustrate root functions, for example, absorption by osmosis, growth toward moisture.

Soils: The presence of soluble and insoluble materials in soils; simple experiments in illustration.

Stems: Simple experiments to illustrate stem function, for example, conduction of cell sap, heliotropism, rotation of the end of the stem in twiners and climbers.