

Outline of
Garden Work and Nature Study

Grade I
" II

Garden Trips (in fall)

Children conduct the teacher through the gardens

Teacher conducts children to gardens

Teaches to recognize and name common vegetables and flowers

(at least those to be planted the next spring), such as corn, beans, *cabbage, potato, lettuce* tomato, squash, sunflower, nasturtium, etc.; also common trees, as elm, maple, pine, apple.

Open fruits and find seeds inside (squash, beans, apples, etc.)

Harvesting

Teach the children how to pick flowers.

Children observe and learn to help if possible in harvesting and storing vegetables and fruits. Kinds of food from gardens and fields for people and other animals. Connect with Thanksgiving.

Food stored for winter in barns, cellars, corn cribs, etc.

Seasonal changes. Effect of frost. Preparation for winter (plants, animals, man)

Bulbs (Oct. or Nov.)

Teacher plant bulbs in stoneware or water (paper white narc.) The children observe the process.

Children watch the bulbs grow and talk about them. The teacher answers their questions, directs observation, and names the parts of the plant.

Seeds (Early spring)

Children or teacher bring to the class room several of the

larger common seeds, e.g. corn, squash, beans, radish, sunflower, etc.

Children talk about them. Teacher directs observation of form, color, size, markings, etc.

Children learn to recognize and name the seeds.

Germination

Teacher, in presence of the children, places a few squash or bean seeds in moist cotton, sand or blotting paper in a glass jar. Cover.

Children watch these seeds develop into little plants.

Recognition by the children of root, stem, and leaves.

(The children can pot and later transplant into garden, if desired)

Garden

Making the bed

Children imitate and follow directions in assisting the teacher in preparing the class plot, raking, lining, marking, etc..

Planting (seeds of bush beans, pop-corn, nasturtiums, sunflower.)

The teacher plants each kind of seed in turn, describing accurately as she plants, in order that the children may understand the directions given later. (one kind at a lesson).

Teacher gives specific directions as to where, when, and how to plant each seed. Children follow directions and imitate the teacher's way of planting.

Growth

Children observe very frequently the growth of plants in the garden, without and with instructions.

Recognition of each plant

Teacher encourages them to ask questions and to talk about what they see.

Cultivation

Teacher show children how to use rake and hoe to keep soil loose between plants. Children assist in the cultivation.

Animals

If any insects, toads, birds, earthworms, etc. are observed in the garden by the children the teacher satisfies their curiosity concerning them.

Harvesting

Teach the children how to pick flowers and how to harvest vegetables.

Grade II

Bulbs (Oct. or Nov.)

Teacher plants bulbs in pots of soil (tulips, crocuses) to be put in a cool place for rooting. When brought in (Jan.) the children watch them grow and talk about them, the teacher answering any questions. (See leaflets on Bulb Planting.)

The teacher gives definite instructions in distinguishing and naming the kinds - tulip, ^{hyacinth} crocus, etc. as they develop. Children recognize and name the parts, root, stem, leaves, flowers.

Seeds (Early Spring)

The seeds learned in Grade I are reviewed. Children should learn to recognize and name all new seeds planted in their garden. (as radish, curled lettuce, zinnia, sweet alyssum)

Germination

Children start (test) some of the vegetable seeds in cloth between plates. If desired a few can be grown and transplanted into the garden later. Encourage watching and talking about the seedlings. The teacher guides the children in discovering the differences in the growth of various seeds.

Conditions of Plant Growth

From bulbs, seedlings, or plants in the room the teacher leads children to understand that plants need light, heat, moisture, soil, air. (Can you make clear this last?)

Garden

Soil

Children observe the soil, in various plots, and distinguish fine and ^a coarse, light and dark. Which better?

Making bed

Children assist the teacher in preparing the class plot, raking, measuring, lining, marking, etc.

Planting

The teacher gives specific instruction in the use of all tools handled and for planting each kind of seed, - how far apart to make the rows, how far apart to plant the seeds, and how deep to cover them.

Transplanting

The teacher in the presence of the children transplants tomatoes, cosmos, or other plants chosen, shows and describes each step. Children imitate.

Growth

Children observe very frequently the growth of the plants in the garden. Teacher directs personally the observation of all children to some things, of some children to more things.

Teacher encourages them to ask questions and to talk about what they see.

Cultivation

Children shows children to use rake and hoe and to keep soil loose between plants. Children assist in cultivation.

Animals

If any insects, toads, birds, earthworms, etc. are observed in the garden by the children the teacher satisfies their curiosity concerning them.

Harvesting

Teacher shows the children how to pick flowers and how to harvest vegetables from Grade I garden.

Use some for indoor decoration, drawing, coloring, etc.

Grade V

Review recognition of growing grains and grasses
 Harvesting and threshing. Special study of corn
 Grain produced by different people of the world
 Continue insect work of grade IV. Apply knowledge gained
 to combating such pests as tent-caterpillar, etc.

Bulbs

Recognition of various kinds of bulbs; potting bulbs, growing bulbs indoors, outdoors.

Seeds

Recognition of all seeds planted in various grades and any new ones chosen this year.

What is a seed? Discuss briefly.

Test seeds to be planted

Seed selection

What is necessary for germination of seeds? (Heat, moisture, air. Why? Why not soil and light? See experiments under the next topic.)

Seeds, Roots, Leaves,- relation to air and light.

See Leaflets, Experiments with Plants and Soils. Have children help in doing Exps. 9, 10, and 1. See also Exps. 2 to 5.

Soil

Collection of various soils from the garden.

Experiment to show rise of water in different soils. (No. 11, Exps. with Plants and Soils)

Children make a careful study of soil with their own plots

School Garden

Indoors-

Starting seeds in flats (tomato or cabbage, cosmos or coboea, asters, etc.)

Pricking out seedlings

Transplanting from one pot to a larger one.

Direct children in the use of the hot bed, the cold frame

Definite class work on planning the plots. Each child keeps a plan of his own garden plot. Teach use of radish, lettuce with corn, tomato, cabbage, turnip, etc. for succession.

Outdoors-

Holding the children responsible for preparing the soil, measuring and marking the plots, and sewing the seeds. (Be sure that they handle all tools properly and that they work intelligently and accurately.)

Home Gardens.- Encourage the children to have similar gardens at home.

Tillage

Teach why we till and when it should be done

Do exp. with hump of onion (No. 13, Exp. with plants & soil)

Lead the children to recognize the common weeds found growing in their plots.

Hold the children responsible for intelligent thinning out, weeding, and cultivating. Reasons. Inspire them with a desire to have the best garden.

Study of plants

Lead children to see the individuality and peculiar habits of

each kind of plant under their care. Where are the flowers produced? Note the distinct parts of the flower. Watch closely the development of flower into fruit. How does the plant adapt itself to the weight of the fruit?

What part of the plant do we use for food? Why? Of what use to the plant?

Have the pupils make drawings to illustrate the various adaptations of the plants.

Correlate with the work in arithmetic, geography, spelling, art, etc.