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**Y**OUR puddings are palatable, why use Five Roses? Simply because you want them more daintily porous, more digestible. Five Roses puddings digest unconsciously—every spoonful is a tasty source of vitality.



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## Saves Fuel and Food

The continued high cost of foodstuffs and household supplies require the strictest economy.

The most expensive foodstuffs are used in baking, so always be careful to use the right kind of Baking Powder, otherwise great waste may result.

Many thousands of people recommend

## EGG-O Baking Powder

because it effects the greatest economy.

Its double action absolutely assures perfect baking at all times.

Egg-O also helps save fuel because it does not require so hot an oven as is required by other powders.

Always follow the directions—one level teaspoonful to one level cup of well sifted flour. You use from a quarter to a half less powder when you use Egg-O.

When buying Egg-O the larger tins are the most economical size for family use.

Egg-O Baking Powder Co., Limited, Hamilton, Canada

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## Our School Department.

### How to make a Garden

A LESSON PLAN.

Aim:—To interest the children in gardening.

Materials:—A vacant lot, or a part of the school-grounds, or a plot at home; rakes, hoes, measuring stick, line, seeds, etc.

Method:—1. Of what use are seeds? Why are we interested in looking through seed catalogues in spring? Why do we want seeds? What can we do with them? What does nearly every person plan to do out-of-doors in spring? How can a garden be prepared, planted, and cared for?

2. Discuss the making of the garden. If possible, actually do the work in a garden lot, or have the pupils do the work at home.

First: Preparation of Soil.—What should be done to the lot first? Should it be plowed in autumn or in spring? Of what use is the plowing? When should manure be applied? Why should the garden receive plenty of manure? Discuss the digging of the plot with a digging-fork.

Second: Planning of the garden.—Measure and make a plan of the garden. Divide it into lots or plots with paths between. Make the plots longer than wide. Why is it better not to have the plots too wide? In what direction should the plots run? Why is it better to have them run north and south? Mark the rows in the plots.

Third: What to Plant.—Decide as to what to plant, vegetables or flowers, or both, and what kind of each. Keep in mind what plants would look well side by side, and whether one kind would shade another if close. Consider also the use of each vegetable.

Fourth: How to Plant.—Discuss the planting of the seeds. Should they be planted in rows or hills, or scattered? How deep should they be in the ground? Should the soil be pressed down on them after planting? How could it be pressed?

Fifth: Care of the Garden.—Discuss the care of the garden after planting. When should it be watered? How often? How much water? How can weeds be kept down? How much care should the garden receive during the vacation?

3. Compare the making of a garden in good well-prepared soil with the making of one where there is sod only. Which should give a better garden? Why?

4. In planning a garden what are the chief points to be kept in mind? What work is required in a garden: (1) in the making and (2) in the care? Why should every child have a garden?

5. At school or at home make a garden and care for it. Notice other gardens and make comparisons.

6. Draw a plan of your garden showing the rows or beds, and how it is planted.

The above lesson plan is from Book 2 of Nature-Study Lessons, by Dr. D. W. Hamilton, Macdonald College.

### A Springtime Game

"All work and no play makes Jack a dull boy."

Whatever you do, do it well even if it is playing. Play enthusiastically when you play, and work hard when you work.

HEADS AND TAILS.

Divide into two teams and line up the teams facing each other in two lines with about three feet between the lines. The teams take up their positions in the middle of the playing space each with their backs turned to their own den and facing the opponents. One side is called the "heads" and the other "tails." A leader is chosen who tosses up a coin—when it falls "heads" he calls out "heads," if it falls "tails," he calls out "tails." The side whose name is called turns and runs for its den, which may be a wall, fence or a line drawn about thirty feet from the centre of the playing space. The other side meantime tries to tag as many of the team called as possible before they get to their den. Everyone so tagged has to pass over to the other team. The teams then line up as before and the coin is tossed again and again until only one player is left on one side or the other.

### Some Illusions Regarding Buds and Twigs

BY G. W. HOFFERD, M.A.

There seems to be a general opinion among pupils that the bud scales and woolly coverings, such as found inside the scales of the horse-chestnut, are to keep the delicate bud warm. A little reflection on winter conditions would soon convince one of how entirely inadequate bud scales, as a covering, are to keep out the cold of winter weather. How would you like to stay out all winter exposed to "zero weather" with such a scant protection as scales afford? The best they could do is perhaps to protect the bud a little from too rapid a rise or fall in temperature. The real function is to protect the young delicate shoot from losing too much water, and from mechanical injury. The air of winter is much dryer than that of spring and summer, and so woody plants must protect themselves against this cold, dry air of winter, which practically places the plant under desert conditions. At the same time the cold soil almost entirely retards root absorption, and also water-raising forces are at a minimum. Thus, bud scales protect against evaporation during a period when the plant cannot afford to lose moisture from its dormant growing shoots. Nature prevents the drying out of twigs by bud scales and the excretion of resin between the scales.



A Beauty Spot.

Another general belief is that the "winter killing" of trees and shrubs is due to freezing. Cold in freezing, however, is only indirectly the cause of death. "The real cause is the abstraction of water from the cell by the ice crystals forming in the intercellular spaces." These ice-crystals, of course, are formed from the water content of the cell itself, extracted from the cell, and consequently its moisture is reduced below the danger point for that cell, and death ensues. Investigation has shown that, on freezing, ice never forms within a cell, but rather in the space between cells, and that freezing does not rupture the tissue or cell wall as many suppose. Hence freezing is, in reality, a drying process; and dryness is the real cause of death in winter-killing, and not cold. Have you ever noticed how dry twigs are during the winter months compared with that of other seasons?

Another error is common regarding the elongation of woody plants. They grow in height only by the growth of new sections of the stem which start out each growing season from the terminal and lateral winter buds. Consequently branches once formed on a tree remain the same distance apart and the same distance from the ground year after year. But from whence come the trees with those long limbless trunks? This is an illusion in forest trees due to the dying away of the lower branches, and not to any elongation of the length of any season's growth. The growth goes on in diameter, but not in length. Compare a tree in the forest with one of the same species in the open field, where it is bathed in a flood of light. The difference is due to the presence of abundant sunlight in the open field, and the shaded condition which prevails in the forest.