

from a few plants as soon as they open, and allow others to bear fruit. Which bear the more and the better runners? How long will a strawberry plant live and produce fruit? Is it wise to let them go unattended for a few years? Why? Experiment on covering the plants in the autumn. Cover them at different times and at different depths—using only small patches for experimental purposes. Likewise experiment in the spring by uncovering them at different times. In setting out young plants, try cutting the old leaves off from some, and leaving others unpruned. Is there any difference in results? Have you heard of fall-bearing strawberries? Nurserymen advertise them under the name "Everbearing." Try a few of these. What peculiar habit makes them fall-bearing? Do they also bear in early Summer? What other plants have a blossom like that of the strawberry? Do they multiply in the same way? Make a collection of flowers (both wild and cultivated) that show close relationship with the strawberry. Do strawberries grow from seed? How do wild strawberries get started in a new field? Try growing cultivated varieties from seed. Try, in some cases, planting the whole fruit. In others, crush and wash out the seeds, and plant them alone. Try this outdoors with no artificial watering. Try it also in the house.

Sometimes the strawberry plants grow well for a longer or shorter time; and then die. What killed them? Dig round the roots and look for the "White Grub"—the larva of the June beetle (June-bug). Put some of these grubs in a box of earth with grass sods, partially bury in the ground, and cover with wire window screen. Leaving them thus outdoors exposes them to natural conditions. Learn what you can about them. Do the same with cutworms, whiteworms, or any other "grubs" found in the ground. Dig a few up in late fall to see in what stage they pass the winter.

Carry on similar experiments and Nature lessons with raspberries, blackberries, gooseberries, currants and all other garden crops. Try to learn the life history of the currant worm and the currant borer. What diseases affect the raspberry? What is their nature? Cause? and control? Collect samples of diseased parts of various plants, and have written essays on some phase of these diseases. Encourage the children

to find out all they can by reading farm papers and bulletins. Do not assign reading, however, unless they have the actual object under observation. Otherwise, they do not know what they are reading about.

NATURE STUDY OF ANIMALS.

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Continue the work started last month in winter birds, and keep adding to your list as you find new species.

Direct special study to such birds as the Blue Jay, Snow Bunting, Canada Jay, English Sparrow, Owls, Partridge, etc.

The lower grades should learn to recognize some of these forms, note their numbers, and become acquainted with some of their life habits, calls, etc. With the higher grades the work should be more advanced. Where does each find shelter? What is the chief winter food of each? Learn to recognize the tracks of our more common species. Every country boy should know tracks of the Partridge, and the marks of the wings in the snow, where it takes flight. These or other known tracks may be used as a basis for comparison. Notice that our larger birds like the hen and the partridge walk, the footprints being of equal distance apart. Compare with the tracks of sparrows. Do sparrows walk or hop? Extend your observation to other birds. Learn to draw the tracks of birds and other animals.

Examine books of Animal Stories, such as those by Thompson Seton and other authors, and note the marginal illustration or ornamentation in the way of tracks of animals, lines of flight of birds, etc., etc. Older pupils, with a taste for nature study, will take the hint, and should be encouraged to attempt some illustrating of their own. Show them how by a few lines they may represent the scenes of their nature study trips, the tracks of animals, location of hills, trees, and brooks, and of many other things of interest. This work will give life to the drawing lesson, and should be correlated with it, or taken in place of home exercises.

Some interesting lessons can be given on the different kinds of feet of birds; their various forms, and adaptations. Take for example the feet of the hen. Note that the long strong toes