

Nature Study

Adaptation to the Season

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Travellers tell us that the most progressive peoples are native neither of tropical regions where the weather is warm all the year round nor of arctics where there is a constant struggle to get food and clothing but of the temperate latitudes where there are well marked summer and winter seasons.

In what ways are people benefited by having to prepare for winter?

Do dwellers in town have to make as much preparation for winter as those who live on the farm? Give reasons for your answer.

Farmers, gardeners, lumbermen and some other classes of people have as a rule different kinds of work in summer from what they have in winter. Describe these differences.

Evenings and holidays in winter are not usually spent in the same way as in summer.

What differences have you observed?

What preparations have you known people to make for the pleasant or useful occupation of winter evenings?

Inquire among your grown-up friends in which season—summer or winter—their health is better or their weight greater. What reasons, if any, are given for the differences?

Some birds reside with us during the summer months only; others are winter sojourners; but some remain with us all the year. From your own observation make lists of these three classes.

What birds have you observed migrating, that is going south, in the fall? What relation has the kind of food they use to their need to migrate?

Closely watch the winter residents to discover what they feed upon. Try this fall and winter to recognize and study chickadees, nuthatches, kinglets, downy woodpeckers, bluejays, grosbeaks, waxwings and snow-birds.

Farmers' children and those who can visit the country may have opportunities to learn something of how the little wood-folk prepare for winter.

Have you ever seen the winter home of a squirrel or field-mouse? If so, describe it.

What kinds of food do these animals store? How do they carry it to their store-houses? Why do they need less food in a month in winter than in the same time in summer? Why do large animals such as the horse need more food in winter than in summer?

Have you noticed any wild animals in the woods which change the color or thickness of their fur as winter comes on? What advantage is it to a weasel to be white in winter?

Why are woodchucks and raccoons so rarely seen in winter? Are skunks seen when snow is on the ground?

Record any observations you have had the opportunity to make on preparation for winter by muskrats, martens, wild or tame rabbits, bats, or any other kind of wild mammal.

The cold-blooded animals—frogs, toads, salamanders, snakes—are seldom if ever seen when the snow is on the ground. Can you discover how they prepare for winter? Have you observed fish swimming in the streams in the winter?

Very interesting investigations of the ways in which insects adapt themselves to the seasons may be made. Honey-bees, wasps, mosquitoes, house flies, grasshoppers, moths, butterflies, beetles, in great variety, have each and all their own way of escaping destruction by frost—some in the egg, some as larvae, some in the pupal stage and some as perfect adult. One or other of these stages may be sought in tree-tops, or in the earth, in woody tunnels or the heart of seeds, in dry crevices or immersed in water. When there is so great abundance and variety of insect species you ought to be able to find out, if you try, how one or more insects prepare to pass the winter.

I do not expect you to make all these observations this fall. Some of the animals mentioned you may not even see. Very likely there are other animals not named on this page which you will have a chance to study and which will exercise your observing and descriptive powers just as well.

Perhaps there are books which tell the ways in which all these animals prepare for winter but I should like you to think of the answer to this question:—Why will it probably be more useful to you and add more to your enjoyment to discover by your own efforts how even a few animals adapt themselves to the changes of season than to learn such facts about many of them from books?