Teacher's Guide to The Whole Year Round

by Dallas Lore Sharp

Notes and Suggestions for The Spring of the Year

CHAPTER I

Put the question to your scholars individually: Who is your messenger of spring? Make the reading of this book not an end in itself, but only a means toward getting the pupils out of doors. Never let the reading stop with the end of the chapter, any more than you would let your garden stop with the buying of the seeds. And how eager and restless a healthy child is for the fields and woods with the coming of spring! Do not let your opportunity slip. Go with them after reading this chapter (re-reading if you can the first chapter in "The Fall of the Year") out to some meadow stream where they can see the fallen stalks and brown matted growths of the autumn through which the new spring shoots are pushing, green with vigor and promise. The seal of winter has been broken; the pledge of autumn has been kept; the life of a new summer has started up from the grave of the summer past. Here by the stream under your feet is the whole cycle of the seasons—the dead stalks, the empty seed-vessels, the starting life.

Let the children watch for the returning birds and report to you; have them bring in the opening flowers, giving them credit (on the blackboard) for each new flower found; go with them (so that they will not bring the eggs to you) to see the new nests discovered, teaching them by every possible means the folly and cruelty of robbing birds' nests, of taking life; while at the same time you show them the beauty of life, its sacredness, and manifold interests.

CHAPTER II

Read Kipling's story in "The Second Jungle Book" called "The Spring Running." Both Jungle Books ought to be in your school library. Spring is felt on the ocean as well as over the land; life is all of one piece; the thrill we feel at the touch of spring is felt after his manner and degree by bird and beast and by the fish of the sea. Go back to the last paragraph of chapter I for the thought. Here I have expanded that thought of the tides of life rising. See the picture of the herring on their deep sea run on page 345 of the author's "Wild Life Near Home." Let the chapter suggest to the pupils the mysterious powers of the minds of the lower animals.

CHAPTER III

You will try to get three suggestions out of this chapter for your pupils: First, that an old tree with holes may prove to be the most fruitful and interesting tree in the neighborhood, that is to say, nothing out of doors is so far fallen to pieces, dead, and worthless as to be passed by in our nature study. (Read to them "Second Crops" in the author's "A Watcher in the Woods.") Secondly: the humble tree-toad is well worth the most careful watching, for no one yet has told us all of his life-story. Thirdly: one of the benefits of this simple, sincere love of the out-of-doors will come to us as rest, both in mind and body, as contentment, too, and clearer understanding of what things are worth while.

CHAPTER IV

See the suggestions for the corresponding chapter in "The Fall of the Year," the first volume in this series. Lest you may not have that book at hand, let me repeat here the gist of what I said there: that you make this chapter the purpose of one or more field excursions with the class—in order to see with your own eyes the characteristic sights of spring as recorded here; secondly, that you use this, and chapters VI and X, as school tests of the pupil's knowledge and observation of his own fields and woods; and thirdly, let the items mentioned here be used as possible subjects for the pupil's further study as themes for compositions, or independent investigations out of school hours. The finest fruit the teacher can show is a school full of children personally interested in things. And what better things than live things out of doors?

CHAPTER V

I might have used a star, or the sun, or the sea to teach the lesson involved here, instead of the crow and his three broken feathers. But these three feathers will do for your pupils as the falling apple did for Sir Isaac Newton. The point of the chapter is: that the feathers like the stars must round out their courses; that this universe is a universe of law, of order, and of reason, even to the wing feathers of a crow. Try to show your pupils the beauty and wonder of order and law (not easy to do) as well as the beauty and wonder of shapes and colors and sounds, etc.

CHAPTER VII

I called this chapter when I first wrote it "The Friendship of Nature"—a much used title, but entirely suggestive of the thought and the lesson in the story here. This was first written about six years ago, and to-day, May 12, 1912, that pair of phœbes, or another pair, have their nest out under the pig-pen roof as they have had every year since I have known the pen. Repeat and expand the thought as I have put it into the mouth of Nature in the first paragraph—"We will share them [the acres] together." Instill into your pupils' minds the large meaning of obedience to Nature's laws and love for her and all her own. Show them also how ready Nature is (and all the birds and animals and flowers) to be friendly; and how even a city dooryard may hold enough live wild things for a small zoo. This chapter might well be made use of by the city teacher to stir her pupils to see what interesting live things their city or neighborhood has, although the woods and open fields are miles away.

CHAPTER VIII

In "Winter" I put a chapter called "The Missing Tooth," showing the dark and bitter side of the life of the wild things; here I have taken that thought as most people think of it (see Burroughs's essay, "A Life of Fear" in "Riverby") and in the light of typical examples tried to show that wild life is not fear, but peace and joy. The kernel of the chapter is found in the words: "The level of wild life, the soul of all nature, is a great serenity." Let the pupils watch and report instances of fear (easy to see) and in the same animals instances of peace and joy.

CHAPTER XI

The point of the story is the enthusiasm of the naturalists for their work—work that to the uncaring and unknowing seemed not even worth while. But all who do great things do them with all their might. No one can stop to count the cost whose soul is bent on great things.

CHAPTER XII

In this story I have tried to settle the difficult question of debit and credit between me and the out-of-doors. Shall we exterminate the red squirrels, the hawks, owls, etc., is a question that is not so easily answered as one might think. The fact is we do not want to exterminate any of our native forms of life—we need them all, and owe them more, each of them, for the good they do us, than they owe us for the little harm they may

do us. Read this over with the children with its moral and economic lesson in view. Send to the National Association of Audubon Societies, New York City, for their free leaflets upon this matter. The Pennsylvania Department of Agriculture, Harrisburg, Pa., has a bulletin upon this same subject which will be sent free upon application.

CHAPTER XIII

If you have read through "The Fall of the Year" and "Winter" and to this chapter in "The Spring of the Year," you will know that the upshot of these thrice thirteen readings has been to take you and your children into the woods; you will know that the last paragraph of this last chapter is the aim and purpose and key of all three books. You must go into the woods, you must lead your children to go, deep and far and frequently. The Three R's first—but after them, before dancing, or cooking, or sewing, or manual training, or anything, send your children out into the open, where they belong. The school can give them nothing better than the Three R's, and can only fail in trying to give them more, except it give them the freedom of the fields. Help Nature, the old nurse, to take your children on her knee.

Notes and Suggestions for Summer

CHAPTER I

Let me say again that the best thing any nature book can do for its readers is to take them out of doors; and that the best thing any nature-study teacher can do for them is to take them out of doors. Think of going to school to a teacher so simple, wholesome, vigorous, original, and rich in the qualities of the soul that she (how naturally we say "she"!)—that she comes to her classroom by way of the Public Garden, carrying a bird-glass in her hand! or across the fields with a rare orchid in her hand, and the freshness and sweetness of the June morning in her face and spirit! Why, I should like to be a boy again just to have such a teacher. Instead of bird-songs it is too often school gossip, instead of orchids it is clothes, instead of the open fields it is the round of the schoolroom that most teachers are absorbed in. Most teachers can add and spell much better than they can read, because they do not know the literary values and suggestions of words. Nothing would so help the run of teachers as the background, the observation and feeling, that would come from an intimate knowledge of the out-of-doors in the vicinity of their schoolrooms.

CHAPTER II

Set the students to watching and reporting this rare but very interesting phase of wild animal life. Nothing will tax their patience and ingenuity more; nor will any of their reports need so careful scrutiny and weighing, so easy is it to be mistaken.

CHAPTER IV

In reading this story point out the very narrow margin of life among the wild animals; that is to say, show how little a thing it often is that turns the scales, that makes for life or death. We need all our powers, and all of them developed to their very highest degree of efficiency for the race of life. Only the fittest survive, and for these the race is often under too great handicaps.

CHAPTER V

With a map of Boston follow the course of this title—from the crowded wharf and water-front to the wide, country-like fields of Franklin Park. It is a five-cent car-ride, a good half-day's walk if you watch the wild life on the way. Map out such a course in your own city and take your pupils over it on a tramp, watching

for glimpses of animal and bird life and for the sight of Nature's face—the sky, the wind, the sunshine, trees, grass, flowers, etc. Make the most of your city chance for nature-study. It is an important matter.

CHAPTER VII

For a fuller account of this Wild Bird Reservation see the chapter in "Where Rolls the Oregon," called "Three-Arch Rocks Reservation." Bring out in your reading the point I wished to make, namely that these great reservations of State and Federal Government are not only to preserve bird and animal life, but also to preserve nature—a portion of the earth—wild and primitive and thrilling, against the constant encroachments of civilization. Interest your pupils in their own local parks, preserves, etc., and if they have farms or wood-lots, have them post them and set them aside as their personal sanctuaries for wild life.

CHAPTER VIII

Set the pupils to watching for evidences of mother-love among the lower creatures, where we do not think of finding it; stir them to look for unreported acts, and the hidden, less easily observed ways. Such a suggestion might be the turning of a new page for them in the book of nature.

CHAPTER XII

Try to bring home to the class the profoundly interesting facts of animal distribution—where they live, and how they came to live where they do. Point out the strange shifts resorted to by various creatures who live at the various extremes of height or depth or cold or heat to enable them to get a living.

Notes and Suggestions for The Fall of the Year

CHAPTER I

Go yourself frequently into the fields and woods, or into the city parks, or along the water front—anywhere so that you can touch nature directly, and look and listen for yourselves. Don't try to teach what you do not know, and there is nothing in this book that you cannot know, for the lesson to be taught in each chapter is a spiritual lesson, not a number of bare facts. This spiritual lesson you must first learn before you can teach it—must feel, I should say; and a single thoughtful excursion alone into the autumn fields will give you possession of it. And what is the lesson in this chapter? Just this: that the strong growths of summer, the ripening of seeds and fruits, the languid lazy spirit, and the pensive signs of coming autumn are all the manifold preparations of nature for a fresh outburst of life with the coming of spring.

CHAPTER II

I have chosen the fox in this chapter to illustrate this very interesting and striking fact that wild animals, birds and beasts, thrive in the neighborhood of man if given the least protection; for if the fox holds his own (as surely he does) in the very gates of one of the largest cities in the United States, how easy it should be for us to preserve for generations yet the birds and smaller animals! I might have written a very earnest chapter on the need for every pupil's joining the Audubon Society and the Animal Rescue League; but young pupils, no less than their elders, hate to be preached to. So I have recounted a series of short narratives, trusting to the suggestions of the chapter, and to the quiet comment of the teacher to do the good work. Every pupil a protector of wild life is the moral.

CHAPTER III

The thought in this chapter is evident, namely, that love for the out of doors is dependent upon knowledge of the out of doors. The more we know and the better we understand, the more perfect and marvelous nature seems and the more lovely. The toadfish looks loathly, but upon closer study he becomes very interesting, even admirable—one of the very foundations of real love. So, as a teacher and as a lover of nature, be careful never to use the words "ugly" or "nasty" or "loathly"; never shrink from a toad; never make a wry face at a worm; never show that you are having a nervous fit at a snake; for it all argues a lack of knowledge and understanding. All life, from Man to the Amœba, is one long series of links in a golden chain, one succession of wonderful life-histories, each vastly important, all making up the divinely beautiful world of life which our lives crown, but of which we are only a part, and, perhaps, no more important a part than the toadfish.

CHAPTER IV

There are several practical uses to which you can put this chapter, and the similar chapters, VII and XII: they can be made the purpose for field excursions with the class. Such excursions might be quite impossible for many a teacher in school hours; and we know how the exacting duties overcrowd the after-school hours; but one field excursion each season of the year, no matter how precious your time, would do more for you and your class than many books about nature read inside your four plastered walls. Better the books than nothing; but take the book and go with your pupils into the real out of doors.

Again, you can make these chapters a kind of nature test, asking each pupil to try to see each of the things suggested here; or, if these do not chance to be the sights characteristic of the autumn in your region, then

such sights as are characteristic. So the chapter can serve as a kind of field guide to the pupil, and a kind of test of his knowledge of nature.

Again, you can make each item mentioned here the subject for a short composition direct from the pupil's experience—the only kind of subject for him to write upon. Or make each item (say, No. IV, the Ballooning Spiders) the beginning for a short course of study or collateral reading for the individual pupil particularly interested in spiders!

CHAPTER V

The real point of this story (but first of all it is a story and should not be spoiled with any moral) is the thought in the lines:—

"There were thousands of persons who could have gold eggs if they cared. But eagles' eggs! Money could not buy such a sight as this." Which means, that the simple joys of the out of doors, and the possession of youth and health, are better than any joys that money can create, and more precious possessions than all the money in the world can buy. One can get all the thrilling sensations of height by standing up in a quaking eagle's nest sixty feet from the ground, that one can possibly get from the top of the Eiffel Tower or on the peak of Mount Washington, or from a flying-machine among the clouds. And then who among the rich of the world ever saw eagles' eggs in a nest, or had eagles dig him with their talons? To be alive to all the wonder of the life, to all the beauty of the world about us, is the very secret of living. An eagle's nest to climb into is as good as a flying-machine.

Take occasion, too, at the end of the story to say how much better, how much more interesting, an act it was to leave the eggs to hatch than to rob the nest and thus destroy two young eagles. Some years later, for instance, two young eagles were taken from a neighboring nest and were sent to the Zoölogical Gardens at Philadelphia, where they may still be living for thousands of visitors each year to see. Who knows but that one of the parents of these two captive birds may have been in the eggs laid back by the boy in that nest?

CHAPTER VI

We hear so much of the drudgery of farm life, of its dreariness, and meagre living that this chapter, aside from its picture of cheer and plenty, should be made the text for a good deal of comment upon the many other phases of farm life that make for the fullest kind of existence; namely, the independence of the farmer; the vast and interesting variety of his work; his personal contact with domestic animals, his fruit-trees, garden, and fields of grain; his intimate acquaintance with the weather; his great resourcefulness in meeting insect plagues, blights, and droughts; his out-of-door life that makes him strong and long-lived, etc., etc.

If you are a country teacher it is one of your great missions to show the boys that they should stay upon the farm, or rather that the farm is a good place to stay on for life; if you are a city teacher it should be your mission to head many a boy countryward for life with the understanding that it requires more sound sense and resourcefulness to make a successful farmer than it does to make a bank president.

CHAPTER VII

Suggestions as to the practical uses to which this chapter can be put may be gathered from the notes to chapter IV and chapter XII, each of which is similar to this one.

CHAPTER VIII

This chapter and the next (chapter IX) should be taken together as a single study of the provision of nature against the severity of winter's cold, chapter VIII being a detailed account of one creature's preparations, while chapter IX follows, showing how the foresight and care obtain even among the plants and trees. The two chapters together should give the pupils a glad thought for winter, should utterly change their conventional language and feeling for it as a time of death. And instead of lamenting the season as a necessary evil, you must show them that it is to be welcomed as a period of sleep for nature from which she will waken in all the freshness of a springtime such as is nowhere to be had outside of the temperate zone.

"It is not always May," wails the poet; but ask them: Who wants it always May? We want the variety, the contrasts of our four seasons, and as to winter, let the North Wind blow at will, redden our cheeks, quicken our step, put purpose into our wills and—it won't starve us; for we, too, like the muskrat, are provided for.

CHAPTER IX

Let the pupils continue this list of examples of winter preparations by watching and observing for themselves. Every field, every tree, every roadside, will reveal the work done or going on under their eyes. Without preaching you may draw many an interesting and telling parallel with their own preparation—in school for instance.

CHAPTER X

Perhaps you are in a crowded school-room in the heart of a great city. What can you do for your pupils there? But what can't you do? You have a bit of sky, a window surely, an old tin can for earth, a sprig of something to plant—and surely you have English sparrows behind the rain pipe or shutter! You may have the harbor too, and water-front with its gulls and fish, and the fish stores with their windows full of the sea. You have the gardens and parks, burial-grounds and housetops, bird stores, museums—why, bless you, you have the hand-organ man and his monkey; you have—but I have mentioned enough. It is a hungry little flock that you have to feed, too, and no teacher can ask more.

CHAPTER XI

This is a chapter on the large wholesomeness of contact with nature; that even the simple, humble tasks out of doors are attended with a freedom and a naturalness that restore one to his real self by putting him into his original primitive environment and by giving him an original primitive task to do.

Then, too, how good a thing it is to have something alive and responsive to work for—if only a goat or a pig! Take occasion to read to the class Lamb's essay on Roast Pig—even fifth grade pupils will get a lasting picture from it.

Again—and this is the apparent purpose of the chapter—how impossible it is to go into the woods with anything—a hay-rake—and not find the woods interesting!

CHAPTER XII

Notice again that in the three chapters on things to see and do and hear a few of the characteristic sights and sounds and doings have been mentioned. Let the whole teaching of these three chapters be to quicken the pupil to look for and listen for the dominant, characteristic sights and sounds of the season, as he must be trained to look for and listen for the characteristic notes and actions of individual things—birds, animals, flowers. If, for instance, his eye catches the galloping, waving motion of the woodpecker's flight, if his ear is trained to distinguish the rappings of the same bird on a hollow limb or resonant rail, then the pupil knows that bird and has clues to what is strange in his plumage, his anatomy, his habits, his family traits.

The world outdoors is all a confusion until we know how to separate and distinguish things; and there is no better training for this than to get in the way of looking and listening for what is characteristic.

Each locality differs, however, to some extent in its wild life; so that some of the sounds in this chapter may need to have others substituted to meet those differences. Remember that you are the teacher, not the book. The book is but a suggestion. You begin where it leaves off; you fill out where it is lacking. A good book is a very good thing; but a good teacher is a very much better thing.

CHAPTER XIII

Let the chapter be read aloud by one pupil, with as much feeling as possible to the paragraph beginning, "I love the sound of the surf," etc.; for this part is story, action, movement. Do not try to teach anything in this half. Let some other thoughtful pupil read the next section as far as, "Honk, honk, honk," beginning the third paragraph from the end. This contains the lesson, the moral, and if you stop anywhere to talk about

bird-protection, do it here. Let a third pupil read the rest of the chapter. Better than a moral lesson directly taught (and such lessons are much like doses of castor oil) will be the touching of the child's imagination by the picture of the long night-flight high up in the clouds. Read them "To a Water Fowl," by Bryant; and also some good account of migration like that by D. Lange ("The Great Tidal Waves of Bird-Life") in the Atlantic Monthly for August, 1909. Read to them Audubon's account of the wild goose, in his "Birds."

Notes and Suggestions for Winter

CHAPTER I

"It must be a lovely place in the summer!" the dull and irritating often say to me, referring to my home in the country. What they mean is, of course, "How wretched a place the country is in winter!" But that attitude toward winter grows less and less common. We are learning how to enjoy the winter; and it is my hope that this volume may distinctly contribute to the knowledge that makes for that joy. Behind such joy is love, and behind the love is understanding, and behind the understanding is knowledge.

The trouble with those who say they hate winter is a lack of knowledge. They do not know the winter; they never tramp the woods and fields in winter; they have no calendar of the rare, the high-festival days of winter.

Such a day is the one of this opening chapter—"Hunting the Snow." And the winter is full of them; as full as the summer, I had almost said! The possibilities of winter for nature-study, for tramps afield, for outdoor sport—for joy and health and knowledge and poetry are quite as good as those of summer. Try it this winter. Indeed, let the coldest, dullest, deadest day this winter challenge you to discover to yourself and to your pupils some sight, some sound, some happening, or some thought of the world outside that shall add to their small understanding, or touch their ready imaginations, or awaken their eager love for Nature.

And do not let the rarer winter days pass (such as the day that follows the first snow-fall) without your taking them or sending them a-hunting the snow, else you will fail in duty as grievously as you would if you allowed a child to finish his public-school education without hearing of Bunker Hill.

In reading this first chapter lay emphasis upon: (1) the real excitement possible without a gun in such a hunt; (2) the keener, higher kind of joy in watching a live animal than in killing it; (3) the unfairness of hunting to kill; (4) the rapid extinction of our wild animals, largely caused by guns; (5) the necessity now for protection—for every pupil's doing all he can to protect wild life everywhere.

CHAPTER II

This herding and driving of turkeys to market is common in other sections of the country, particularly in Kentucky. I have told the story (as told to me by one who saw the flock) in order to bring out the force of instinct and habit, and the unreasoning nature of the animal mind as compared with man's.

CHAPTER III

There is a three-pronged point to this chapter: (1) the empty birds' nests are not things to mourn over. The birds are safe and warm down south; and they will build fresh, clean nests when they get back. Teach your children to see things as they are—the wholesomeness, naturalness, wisdom, and poetry of Nature's arrangement. The poets are often sentimental; and most sentimentality is entirely misplaced. (2) The nest abandoned by the bird may be taken up by the mouse. The deadest, commonest of things may prove full of life and interest upon close observation. Summer may go; but winter comes and brings its own interests and rewards. So does youth go and old age come. There is nothing really abandoned in nature—nothing utterly lacking interest. (3) A mouse is not a Bengal tiger; but he is a whole mouse and in the completeness of his life just as large and interesting as the tiger. If the small, the common, the things right at hand, are not interesting, it is not their fault—not the mouse's fault—but ours.

CHAPTER IV

If you have at hand "The Fall of the Year," read again the suggestions on page 112 for the chapter on "Things to See this Fall," making use of this chapter as you did of that (1) as the object of a field excursion—or of several excursions until all the things suggested here have been seen; (2) as a test of the pupil's actual study of nature; for there is scarcely a city child who cannot get far enough into nature (though he get no farther than the city park), and often enough to see most of the things pointed out in this chapter; (3) as suggestions for further study and observation by the pupils—things that they have seen which might be added to these ten here, and written about for composition work in English.

CHAPTER V

Let this chapter be read very close to the Christmas recess, when your children's minds are full of Christmas thoughts. This unconventional turn to the woods, this thought of Christmas among the animals and birds, might easily be the means of awakening many to an understanding of the deeper, spiritual side of nature-study—that we find in Nature only what we take to her; that we get back only what we give. It will be easy for them to take the spirit of Christmas into the woods because they are so full of it; and so it will be easy for them to feel the woods giving it back to them—the very last and best reward of nature-study. No, don't be afraid that they are incapable of such lessons, of such thoughts and emotions. Some few may be; but no teacher ever yet erred by too much faith in the capacity of her pupils for the higher, deeper things.

CHAPTER VI

Read to the pupils Emerson's poem "The Titmouse," dwelling on the lines,—

"Here was this atom in full breath,
Hurling defiance at vast death," etc.
and the part beginning,—

"'Tis good will makes intelligence,"

letting the students learn by heart the chickadee's little song,—

"Live out of doors
In the great woods, on prairie floors," etc.

Poem and chapter ought mutually to help each other. Read the chapter slowly, explaining clearly as you go on, making it finally plain that this mere "atom" of life is greater than all the winter death, no matter how "vast."

CHAPTER VII

Make a point of going into the winter woods and fields, taking the pupils as often as possible with you. It may be impossible for your city children to get the rare chance of glare ice; but don't miss it if it comes.

This is the time to start your bird-study; to awaken sympathy and responsibility in your pupils by teaching them to feed the birds; to cultivate cheerfulness and the love of "hardness" in them by breasting with them a bitter winter gale for the pure joy of it. Use the suggestions here for whatever of resourcefulness and hardiness you can cultivate in the girls as well as in the boys.

CHAPTER VIII

I believe this to be one of the most important chapters in the volume, dark and terrible as its lesson may appear. But grim, dark death itself is not so dark as fear of the truth. If you teach nothing else, by precept

and example, teach love for the truth—for the whole truth in nature as everywhere else. Winter is a fact; let us face it. Death is a fact; let us face it; and by facing it half of its terror will disappear; nay more, for something of its deep reasonableness and meaning will begin to appear, and we shall be no more afraid. The all of this is beyond a child, as it is beyond us; but the habit of looking honestly and fearlessly at things must be part of a child's education, as later on it must be the very sum of it.

Great tact and fine feeling must be exercised if you happen to have among the scholars one of the handicapped—one lacking any part, as the muskrat lacked—lest the application be taken personally. But let the lesson be driven home: the need every boy and girl has for a strong, full-membered body,—even for every one of his teeth,—if he is to live at his physical best.

CHAPTER IX

Make this chapter, as far as you can, the one in the volume for most intensive study. Show the pupils how the study of animal life is connected with geology, tell them of the record of life in the fossils of the rocks, the kinds of strange beasts that once inhabited the earth. Show them again how the study of animals in their anatomy is not the study of one—say of man, but how man and all the mammals, the reptiles, the birds, the fishes, the insects, on and on back to the single-celled amœba, are all related to each other, all links in one long wonder chain of life.

CHAPTER X

This chapter and the next go together—this for the lover of wild life, the next for the lover of adventure. The spring freshet is one of the most interesting of the year of days for animal study—better even than the day after the first snowfall. But more than this, let both chapters suggest to you how primitive and elemental the real world is after all; with what cataclysmal forces the seasons are changed. As summer often passes into autumn with a silencing frost that rests like a hush of awe over the land; so winter often gives way to spring with a rush of wind and tidal powers that seem to shake the foundations of the world. To feel these forces, to be a part of all these moods, to share in all these feelings—this, too, is one of the ends of nature-study.

CHAPTER XII

I should like to repeat here the suggestions in "The Fall of the Year" for this corresponding chapter. I will repeat only: "that you are the teacher, not the book. The book is but a suggestion. You begin where it leaves off; you fill out where it is lacking." For these are not all the sounds of winter; indeed they may not be the characteristic sounds in your neighborhood. No matter: the lesson is not this or that sound, but that your pupils learn to listen for sounds, for the voices of the season, whatever those voices may be in their own particular region. The trouble is that we have ears, and literally hear not, eyes and see not, souls and feel not. Teach your pupils to use their eyes, ears, yes and hearts, and all things else will be added unto them in the way of education.

CHAPTER XIII

Do all that you can to teach the signs of the zodiac, the days of the seasons, and all the doings of the astronomical year. All that old lore of the skies is in danger of being lost. Some readers will say: "The author is not consistent! He loves the winter and here he is impatient to be done with it!" Some explanation on your part may be necessary: that the call of the spring is the call of life, a call so loud and strong that all life—human and wild, animal and vegetable,—hears it and is impatient to obey. If possible take your scholars upon a walk at this raw edge of the season when they will feel the chill but also the stirring of life all about them.