

Contents

Acknowledgments xiii

Introduction 1

Connecting to Nature	1	Some Key Regional Species to Learn	10
Technology is the Answer, But What Was the Question? . . .	2	How to Raise a Naturalist	14
Nature Deficit Disorder	3	How Do We Get Kids Outside? . . .	17
About <i>The Big Book of Nature Activities</i>	6	Characteristics of Kids and Nature: Ages and Stages	18
Geographical Area Covered	8	Adults and Nature: How Knowledge and Appreciation Enhance Our Lives	20
100 Continent-wide Species to Learn	10	Species Identification and Naming	22

Basic Skills for Connecting to Nature 25

Hints for Paying Attention	25	Time of Year and Time of Day	45
Engaging All of Your Senses	26	Increasing Your Chances of Seeing Wildlife	46
Leading a Walk or Hike: Some Pointers	29	Bringing Nature Inside	47
Some “Back-pocket” Activities	30	Sketching and Journaling	48
Birding	32	Nature Photography	50
Invertebrate-watching: Butterflies, Moths and Dragonflies	35	Geo-caching: A Tool for Nature Appreciation	52
Botanizing: The Art of Plant Identification	39	Citizen Science	53
Mushroom-hunting	40	Connecting with Nature in the Digital Age	54
Enjoying the Sky	42		

Key Nature Concepts for Children to Learn 63

Why Do We Have Seasons?	63	Evolution	68
Phenology	64	Big History	78
Climate Change	65		

Fall: The Cooling Season 81

Some Key Events in Nature in Fall	82	Fall Smells Like...	98
Continent-wide Overview	82	Fall Feels Like...	99
Fall Nature Highlights by Region	87	Phenology	99
Fall Poem	92	Evolution	100
Collection Challenge	93	Birds	104
Art in the Park	93	Mammals	110
What’s Wrong with the Scenario?	94	Amphibians and Reptiles	114
The Story of Night Cap, the Chickadee	94	Fishes	115
At Your Magic Spot	95	Invertebrates	117
Exploring Fall—Things to Do	96	Plants	127
Fall Looks Like...	96	Fungi	133
Fall Sounds Like...	97	Weather	134
Fall Tastes Like...	98	The Sky	135
		Honoring the Season	140

Winter: The Great Exhale 143

Some Key Events in Nature in Winter	144	Winter Smells Like...	157
Continent-wide Overview	144	Winter Feels Like...	158
Winter Nature Highlights by Region	148	Phenology	159
Winter Poem	151	Evolution	159
Collection Challenge	152	Birds	162
Art in the Park	152	Mammals	167
What’s Wrong with the Scenario?	153	Amphibians and Reptiles	174
The Story of Night Cap, the Chickadee	153	Fishes	176
At Your Magic Spot	155	Invertebrates	176
Exploring Winter—Things to Do	156	Plants	181
Winter Looks Like...	156	Fungi	185
Winter Sounds Like...	156	Weather	187
Winter Tastes Like...	157	The Sky	190
		Honoring the Season	193

Spring: The Greening Season 197

Some Key Events in Nature		Spring Tastes Like....	216
in Spring	198	Spring Smells Like....	216
Continent-wide Overview	198	Spring Feels Like...	217
Spring Nature Highlights		Phenology	217
by Region	205	Evolution	218
Spring Poem	209	Birds	221
Collection Challenge	210	Mammals	225
Art in the Park	210	Amphibians and Reptiles.	228
What’s Wrong with the Scenario?	210	Fishes	235
The Story of Night Cap,		Invertebrates	237
the Chickadee	211	Plants	241
At Your Magic Spot	212	Fungi	246
Exploring Spring—Things to Do	214	Weather	247
Spring Looks Like...	214	The Sky	249
Spring Sounds Like...	214	Honoring the Season	251

Summer: The Crescendo 255

Some Key Events in Nature		Summer Smells Like...	271
in Summer	256	Summer Feels Like...	272
Continent-wide Overview	256	Phenology	272
Summer Nature Highlights		Evolution	272
by Region	261	Birds	275
Summer Poem	265	Mammals	281
Collection Challenge	266	Things to See from a Car.	282
Art in the Park	266	Amphibians and Reptiles.	283
What’s Wrong with the Scenario?	267	Fishes	286
The Story of Night Cap,		Invertebrates	287
the Chickadee	267	Plants	298
At Your Magic Spot	269	Fungi	300
Exploring Summer—Things to Do	269	Weather	301
Summer Looks Like....	269	The Sky	305
Summer Sounds Like...	270	Honoring the Season	309
Summer Tastes Like....	270		

Appendix 313

Cards for Song Ensemble and Listen for Your Mate	313	Fall Phenology Chart	326
Leaf Adaptations Scavenger Hunt	315	Winter Phenology Chart	329
Adaptations to Winter Scavenger Hunt	317	Spring Phenology Chart	332
Adaptations for Reproduction Scavenger Hunt	319	Summer Phenology Chart	335
Fungus Scavenger Hunt	321	My Adopted Tree (Fall)	338
Non-identification Bird Walk Checklist	323	My Adopted Tree (Winter)	339
Pictures for Imagining Your Ancestors	324	My Adopted Tree (Spring)	340
		My Adopted Tree (Summer)	341
		What's Wrong with the Scenario?— Answer Key	342
Artists' and Photographers' Credits	343	Index	345
		About the Authors	353