

Contents

About the Author	xix
About the Library	xx
How to Use This Book	xxi
Correlation with National Standards Grid	xxxvii
Key to Icons	xxxix
Listing of Activities by Topic	xli

Section One: Living Through Adaptation

To the Teacher	1
Correlation with National Standards	3
Activity 1.1: What Is Adaptation?	4
Activity 1.2: How Do Adaptations Affect Where Animals Live?	6
Activity 1.3: Why Are Feathers Special?	9
Activity 1.4: What Purposes Can Feathers Serve?	10
Activity 1.5: Can You Make a Feather?	12
Activity 1.6: How Can We Be Tricked by Color?	14
Activity 1.7: How Is Color Used by Living Things?	15
Activity 1.8: What Happens When the Camouflage Is Gone?	17
Activity 1.9: What Happens to Camouflage When the Environment Changes?	19
Activity 1.10: How Do Birds Adapt to Eating?	22
Activity 1.11: What Are Some Other Eating Adaptations?	24
Activity 1.12: What Are Human Teeth Like?	26
Activity 1.13: How Important Is Your Thumb?	28
Activity 1.14: How Do Animals Move?	30
Activity 1.15: How Do Some Animals Communicate?	33
Activity 1.16: How Do Seasons Affect Animal Adaptations?	35

Activity 1.17: How Do Animals Adapt to Seasonal Change?	37
Activity 1.18: Can You Design a Better Bird?	39
Animal Adaptations Word Searches	41
Do You Recall?	44

Section Two: Animals

To the Teacher	47
Correlation with National Standards	49
Activity 2.1: Who Are the New Members of Our Class?	50
Activity 2.2: How Can We Keep Our Pets Healthy?	53
Activity 2.3: How Many Pets Can You Find?	56
Activity 2.4: How Many Other Pets Can You Find?	57
Activity 2.5: What Kind of Pet Would You Like to Own?	59
Activity 2.6: What Can Hair Tell You?	60
Activity 2.7: How Many Play Animals Can You Find?	62
Activity 2.8: How Can You Make a New Animal for a Funny Zoo?	63
Activity 2.9: How Can You Make a Bony Animal?	65
Activity 2.10: What Can Footprints Tell Us?	68
Activity 2.11: What More Can Footprints Tell Us?	69
Activity 2.12: What Clues Can Help Us Read Tracks?	72
Activity 2.13: What Animals Live Around You?	74
Activity 2.14: What Do You Need in Order to Study a Nature Square?	76
Activity 2.15: How Can a Chart Help Us Make Observations?	79
Activity 2.16: What Equipment Can Help Us Study Our Nature Squares?	80
Activity 2.17: How Can We Report Our Findings?	83
Activity 2.18: How Can We Attract Wild Birds?	86
Activity 2.19: What Is a Bird?	88
Activity 2.20: How Can You Make a Birdhouse?	91
Activity 2.21: What Do We Need in Order to Keep Pets in an Aquarium?	94

Activity 2.22: How Can We Keep Small Animals in Our Classroom?	97
Activity 2.23: How Do Earthworms Live?	100
Activity 2.24: Why Is the Snail So Unusual?	102
Activity 2.25: What Organisms Live Around Us That Are Too Tiny to See?	104
Activity 2.26: Is It Alive or Not?	106
Activity 2.27: Is It Living, Once-Living, or Nonliving?	109
Animals Word Searches	111

Section Three: Growing and Changing: Animal Life Cycles

To the Teacher	115
Correlation with National Standards	117
Activity 3.1: What Is Growing Up?	118
Activity 3.2: How Much Do People Change?	119
Activity 3.3: How Does Growing Up Begin?	121
Activity 3.4: What Is a Chicken Egg Really Like?	123
Activity 3.5: What Are Some Other Animals That Hatch from Eggs?	126
Activity 3.6: How Can You Hatch Eggs in the Classroom?	128
Activity 3.7: What Is a Tadpole?	131
Activity 3.8: What Is a Good Environment for Tadpoles?	133
Activity 3.9: Where Do Butterflies Come From?	136
Activity 3.10: What Is Wormy?	140
Activity 3.11: How Long Do Animals Live?	142
Growing and Changing Word Searches	144
Do You Recall?	147

Section Four: Plants and Seeds

To the Teacher	149
Correlation with National Standards	151
Activity 4.1: What Plant Is This?	152

Activity 4.2: How Do Seeds Begin to Grow?	154
Activity 4.3: What Happens to a Growing Plant If It Has No Light?	156
Activity 4.4: How Do Seeds Travel?	160
Activity 4.5: How Can Plants Grow Without Seeds?	163
Activity 4.6: What Is Another Way to Grow Plants Without Seeds?	165
Activity 4.7: What Can You Do with Plants That Become Too Big for Their Containers?	167
Activity 4.8: How Do Containers Make Plants More Interesting?	169
Activity 4.9: What Is a Terrarium?	171
Activity 4.10: What Do Plants Need in Order to Grow?	173
Activity 4.11: How Does Water Travel in a Plant?	175
Activity 4.12: How Do Plants Respond to Light?	179
Activity 4.13: How Do Plants Respond to Gravity?	183
Activity 4.14: How Can We Make a Visual Record of Plant Growth?	188
Activity 4.15: What Are the Parts of Some Common Plants?	191
Activity 4.16: Why Are Leaves Important?	193
Activity 4.17: How Are Leaves Alike and How Are They Different?	196
Activity 4.18: How Can You Preserve the Leaves You Collect?	198
Activity 4.19: How Can You Collect Bark Without Damaging the Tree?	200
Activity 4.20: How Do Roots Grow and Develop?	202
Activity 4.21: What Are the Parts of a Flower?	204
Activity 4.22: How Can You Make a "Dandy" Tasting Salad?	206
Activity 4.23: What Parts of Plants Do You Like to Eat?	208
Activity 4.24: Can We Make a Whole Meal with Just Plants?	211
Activity 4.25: How Can We Know What Kind of Tree It Is?	213
Activity 4.26: If We Can't Climb It, How Can We Measure It?	215
Activity 4.27: Is This a Plant?	219
Activity 4.28: What Is This Strange Growth?	220
Activity 4.29: What Does Your Strange Organism Grow On?	221
Activity 4.30: What Have We Learned About Mold?	223
Plants and Seeds Word Searches	225
Do You Recall?	228

Section Five: Body Systems

To the Teacher	231
Correlation with National Standards	233
Activity 5.1: How Do Fingerprints Compare?	234
Activity 5.2: How Big Is the Average Person Your Age?	236
Activity 5.3: How Can You See Your Pulse?	238
Activity 5.4: What Is a Blood-Pressure Cuff?	239
Activity 5.5: How Do the Body Systems Work Together?	241
Activity 5.6: What Is Your Lung Capacity?	242
Activity 5.7: How Does an Apple Skin Protect the Apple? (and How Does Our Skin Protect Us?)	244
Activity 5.8: How Does the Skin Help Regulate Body Temperature?	247
Activity 5.9: What Do Our Bones Do for Us?	250
Activity 5.10: Are Human Bones Large or Small?	251
Activity 5.11: How Many Bones Can You Count?	253
Activity 5.12: How Can Doctors Tell Whether a Bone Is Broken and Where?	255
Activity 5.13: How Is a Splint Applied to a Broken Bone?	257
Activity 5.14: How Are Bones Connected at a Joint?	258
Activity 5.15: What Are Tendons, and How Do They Work?	260
Activity 5.16: What Is Bone Like Without the Mineral Material?	262
Activity 5.17: How Many Muscles Can You Identify?	263
Activity 5.18: How Do Voluntary and Involuntary Muscles Differ?	265
Activity 5.19: What Is Muscle Sense?	267
Activity 5.20: How Fast Are Your Reactions?	268
Activity 5.21: How Fast Do Your Nails Grow?	270
Activity 5.22: What Does Hair Look Like Under a Microscope?	273
Body Systems Word Searches	275
Do You Recall?	278

Section Six: The Five Senses

To the Teacher	281
Correlation with National Standards	283
Activity 6.1: In What Ways Do We Depend on Our Eyes?	284
Activity 6.2: How Well Can You Judge Depth with One Eye?	285
Activity 6.3: Which Is Your Dominant Eye?	287
Activity 6.4: How Well Do You Remember What You See?	288
Activity 6.5: Why Do We Need Five Senses?	290
Activity 6.6: How Do Our Eyes Help Us "Hear"?	292
Activity 6.7: How Does a Picture Stimulate Your Senses?	294
Activity 6.8: What Happens to the Iris as Light Changes?	295
Activity 6.9: How Is the Eye Like a Camera Diaphragm?	297
Activity 6.10: How Can You See Through a Solid Object?	299
Activity 6.11: What Is a Blind Spot?	300
Activity 6.12: How Effective Is Your Side Vision?	302
Activity 6.13: Can You Save the Fish?	304
Activity 6.14: How Can Our Eyes Make Colors Seem to Change?	306
Activity 6.15: How Well Can You See in the Dark?	308
Activity 6.16: How Fast Can You Judge What You See and Take Appropriate Action?	310
Activity 6.17: How Fast Do Odors Travel?	314
Activity 6.18: How Long Can You Retain a Smell?	315
Activity 6.19: What Foods Can Your Nose Identify?	317
Activity 6.20: How Is Taste Affected by Smell?	319
Activity 6.21: How Can You Tell Whether Taste Is Affected by Smell?	321
Activity 6.22: How Can You Match Things Without Seeing Them?	323
Activity 6.23: What Sounds Do Your Ears Recognize?	325
Activity 6.24: What Sounds Do You Hear in Paper?	326
Activity 6.25: How Well Do You Know Your Classmates' Voices?	327
Activity 6.26: How Well Can Your Ears Alone Tell You What's Happening?	328

Activity 6.27: How Much Can You "See" with Your Ears?	330
Activity 6.28: What Is a Stethoscope?	331
Activity 6.29: What Differences in Taste Do People Have?	333
Activity 6.30: Which Part of the Tongue Is Most Sensitive to Taste?	335
Activity 6.31: How Can We Classify Foods by Taste?	339
Activity 6.32: How Does a Sudden Change in Temperature Affect Us?	340
Activity 6.33: How Well Can You "Observe" with Your Sense of Touch?	341
Activity 6.34: How Much Can You "See" with Your Hands?	343
Activity 6.35: Where Is Your Sense of Touch Most Sensitive?	345
Activity 6.36: What Parts of Your Body Can Feel Things Best?	347
Activity 6.37: What Is Warm and What Is Cold?	349
Activity 6.38: How Many Touch Words Can You Find?	351
Five Senses Word Searches	353
Do You Recall?	356

Section Seven: Health and Nutrition

To the Teacher	359
Correlation with National Standards	361
Activity 7.1: What Are We Made Of?	362
Activity 7.2: Why Do We Wash Our Hands Before Handling Food?	364
Activity 7.3: Why Are the Basic Food Groups Important?	366
Activity 7.4: What Are the Most Common and the Most Popular Foods?	368
Activity 7.5: How Well Balanced Is Your Diet?	372
Activity 7.6: How Can We Test Foods for Protein?	374
Activity 7.7: Which Foods Contain Sugar?	376
Activity 7.8: Which Foods Contain Starch?	378
Activity 7.9: Which Foods Contain Fat?	380
Activity 7.10: How Do People Count Calories?	382
Activity 7.11: How Many Calories Do You Use?	383

Activity 7.12: How Are Teeth Shaped for Their Task?	386
Activity 7.13: What Does Tooth Decay Look Like?	388
Activity 7.14: Why Are Healthy Teeth Important to You?	390
Activity 7.15: How Can You Clean Your Teeth Best?	392
Health and Nutrition Word Searches	394