



# Hoot & Chirp, Buzz & Bite

The Study  
of Plants,  
Birds &  
Insects

## WinterPromise

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# Hoot & Chirp, Buzz & Bite

## Science for 1st to 4th Grade

### Welcome to Your Science Program!

Each week your student will work through several resources. These resources are designed to be done orally together with the parent, but could be done independently if the student is older and accustomed to working on their own. In each of their journals, the written notes should be done with parental guidance and encouragement at first, and as they gain proficiency, with less guidance. For students 3rd-4th grade, these journal assignments are a necessary part of reinforcement for what students are learning, while younger students can do just those assignments that seem most suitable. A notebook or other resource should be purchased prior to beginning; suggestions for the journals are in the “Week 1” notes.

Each week there are suggested activities, some of which should be completed. There is a lot of content in the activities, so we encourage you to try to do at least one or two of them each week. Many of them are very simple to complete and require limited supplies. Any needed supplies beyond common items such as art supplies or household supplies are listed in the back of the guide.

This program has been deliberately designed to be an easy-to-accomplish program, one whose content is a good complement to the breadth of our themed programs for elementary students.

### Book List:

Hoot & Chirp, Buzz & Bite Science Program Guide  
The World of Plants  
Bird  
Take a Backyard Bird Walk  
Insectigations!  
The Secret Lives of Backyard Bugs

### HANDS-ON RESOURCES:

Bug Patrol  
Ant Factory



NOTE: Any evolutionary material will be marked in the schedule with this symbol: ❁

Almost all of these references are just a phrase or the use of “millions of years,” rather than entire passages. When the phrase “millions of years is used, we’ve abbreviated it to “MOY.” These can be skipped easily.

# Preparing: Go to the Copy Store



## **1. Get Supplies for Making “Action Cards”**

Throughout the year your child will be making Action Cards for use with a game from the book “Insectigations!” Purchase 100 3x5 index cards to make these cards.

## **2. Make Ahead These Photocopies You’ll Need:**

There are several resources you’ll need to have photocopied. Each of the items below should be copied once per student on regular white paper unless noted otherwise.

### From This Guide, to Coordinate with “The World of Plants”

Is It Alive Scavenger Hunt	Page 44
Clue Cards	Page 45 - 1 copy per family
Germination Data Sheet	Page 46
Seeds Get Around	Page 47
Photosynthesis Data Sheet	Page 48
Flower Pattern	Page 49 - 1 copy per family on cardstock to use as a pattern OR 1 copy/student on colored paper
Flip Book	Page 50
Plant Word Search	Page 51
Mold Data Sheet	Page 52
Lessons 1-4 - Life Science Intro Quiz	Page 54
Lessons 5-10 - Flowering Plants Quiz	Page 55
Lessons 11-15 - Roots and Stems Quiz	Page 56
Lessons 16-25 - Leaves, Flowers Quiz	Page 57
Lessons 26-34 - Unusual Plants Quiz	Page 58
Final Test	Page 59-60

### From This Guide, to Coordinate with “The World of Plants”

Favorite Foods Experiment Worksheet	Page 78
Helps for Ant Farms	Page 79
Ant Anatomy	Page 80
Ant Anatomy Worksheet	Page 81
Can Ants Swim? Worksheet	Page 82

### From “Insectigations!”

Bee Pattern	Page 18
Dice Pattern	Page 28 - Make 3 photocopies onto white cardstock
Insect Patterns	Page 29 & 30
Water Strider Pattern	Page 81 - Make a photocopy onto white cardstock

# Preparing: Supplies for Activities



**We strongly urge you to get these supplies that will be needed this year:**

- Large, clear, glass or plastic jar for observing insects as needed, needed for quite a few activities
- Field guides for both plants & flowers and insects, needed for quite a few activities
- Magnifying glass, needed for some activities

***Things Not Listed Below:***

We're not listing below any supplies that are reasonable to expect most homeschoolers to have on hand:

- Art supplies
- Household supplies such as paper plates, bowls, glasses, etc.
- Natural items occurring in the outdoors or the insects we'd like kids to try to catch
- Website addresses
- Photocopies we listed in the front of the guide
- Supplies for Action Cards, as supplies were listed as part of photocopy list
- Journaling items, most of which are results of other experiments or simple writing assignments.

***Things to Keep for the Study:***

Bean and corn plants in week nine for "World of Plants" should be kept throughout the study, as they will be used for several different activities.

***Abbreviations Used:***

PLANTS - World of Plants      FACTORY - Ant Factory Antworks Guide  
 INSECT - Insectigations      GUIDE - Directions in this guide

**USING THIS LIST:** Cross off below any supplies you already have, and then DECIDE which activities you'll do. You do NOT have to do them all. You can then use this list to purchase supplies for the activities you've chosen. We highly recommend those from the book "World of Plants."

Week		- Book Activity Name	Supplies Needed
1	PLANTS	Plant Journal	3-Ring Binder & Notebook paper or a spiral notebook
2	PLANTS	"Animal or Plant?" Game	Posterboard
4	PLANTS	Make a Model Cell	3-D Gelatin model - shoe box, 1 qt. plastic zipper bag, Raisins, 1 large red grape or marble, yellow gelating mix
8	PLANTS	Germination Experiment	5 jars, such as mayonnaise or peanut butter jars with lid, 15-20 dried bean seeds, steel wool
1			
9	PLANTS	Seed Dissection	Several bean & corn seeds, sharp knife
	BIRD	Pellet Dissection	Owl pellet from WP Nature Investigation Kit or one you purchased.
10	PLANTS	Seed Location	Several different fruits & vegetables, tightly shut pinecones
11	PLANTS	Root Observation	Unpeeled carrot
12	PLANTS	Examining Special Roots	Onion with roots, flower bulbs if available
13	PLANTS	What Goes Up?	Celery stalks with leave, food color, 2 plastic cups with potting soil
16	PLANTS	Effects of Sunlight	3 mint plants, 2 cardboard boxes
	INSECT	Looking Jar	Drill with a small bit or a barbecue fork
	INSECT	Excellent Exoskeletons	Spray bottle, 4 toilet paper tubes, red food coloring, egg

17	INSECT	A Plantastic Feast	Juice bag with straw, lettuce leaves, juice, 2 straws, sponge
18	INSECT	Nervous Twitch	Foam tray or plate
	PLANTS	Observing Leaf Shapes	Red food coloring
19	INSECT	Mighty Muscles	Tape measure, bathroom scale, chalk, rope
	INSECT	Rigged Ratios	Stiff cardboard, dry cereal
20	PLANTS	Leaf Notebook	Tree field guide, zipper bags, photo album
21	PLANTS	Flower Model	Green pipe cleaners, modeling clay, straws, corn meal
	GUIDE	Ant Mobile	Coat hanger, string, ant life cycle pictures
	INSECT	Spontaneous Generation	3 pieces of raw meat, 3 containers with 1 lid, gauze
22	INSECT	Raise a Mealworm	Order mealworms - see p. 107 of "Pet Bugs"
	FACTORY	Ant Journal	Notebook or 3-ring binder and notebook paper
23	PLANTS	Flower Dissection	Fresh flower, sharp knife
	GUIDE	Sweet Ant Juice	Tropical punch or fruit drink, lemon-lime soda
24	INSECT	Colorblind Challenge	Manilla file folder, 4 x 6 inch piece of green cellophane
	INSECT	Training Bees	5 clear zippered plastic bags, 5 shallow dishes
	PLANTS	Fruit Identification	Pineapple, strawberry, apple
	INSECT	Concentration	10 clear cups, red juice
	INSECT	Dinner Detour	Piece of cake or sugary snack
	FACTORY	Ant Food Recipe	Egg white, vegetable oil, syrup
26	GUIDE	Favorite Food Experiment	Crumbs from your lunch, and worksheet in back of this guide
	INSECT	Here's to Ears	Balloon, plastic soda bottle, rice or cereal
27	INSECT	Buzzing Bug	String, craft stick, 1-inch diameter foam ball, rubber band
	PLANTS	Parasite Model	Straw, coffee stirrer
28	INSECT	Insect Amplifier	Waxed paper
	INSECT	Sound Off Sentry	Egg cartons, aquarium or hamster cage, crickets, sponge
	PLANTS	Observing Tropism	Houseplant
29	INSECT	Sweep Net	Pliers, coat hanger, wire cutter, old pillowcase, broom stick,
	INSECT	Insect Trap	2-liter bottle, raw meat, board about 5 inches square
	PLANTS	Examining a Cactus	Cactus plant
	INSECT	Leaf Litter Shaker	Plastic ice cream tub with lid, thick rag, light colored sheet
30	FACTORY	Ant Activity #5	Red cellophane, flashlight
	PLANTS	Growing a New Potato	Potato, potting soil
	INSECT	Bug Bait	Fruit juice, 2 bananas, flashlight, net
	INSECT	White Light	Rope, white sheet, light source, newspaper
31	INSECT	Walking on Water	Box of paper clips
	PLANTS	Fern Fronds Activity	Ferns or pictures of ferns, corn meal
32	INSECT	Insectigations! Game Board	Posterboard
	PLANTS	Find the Moss	Dried moss from a craft shop
33	GUIDE	Can Ants Swim?	Live ant, sugar, rocks, and worksheet in the back of this guide
34	INSECT	Fly-Tying a Big Bug	Wire hanger hook, yarn, twist ties, 2 plastic eyes
	PLANTS	Grow That Mold	6 slices of bread, 3 plastic zipper bags
35	INSECT	Butterfly Puddles	Topsoil, shallow dish
	GUIDE	How Large An Object...Carry	Bread
36	INSECT	Antifreeze	3 clear film canisters, rubbing alcohol, duct tape, metal hose clamp, screwdriver
	PLANTS	Plant Collage	Posterboard, plant parts & seeds

# Hoot & Chirp, Buzz & Bite

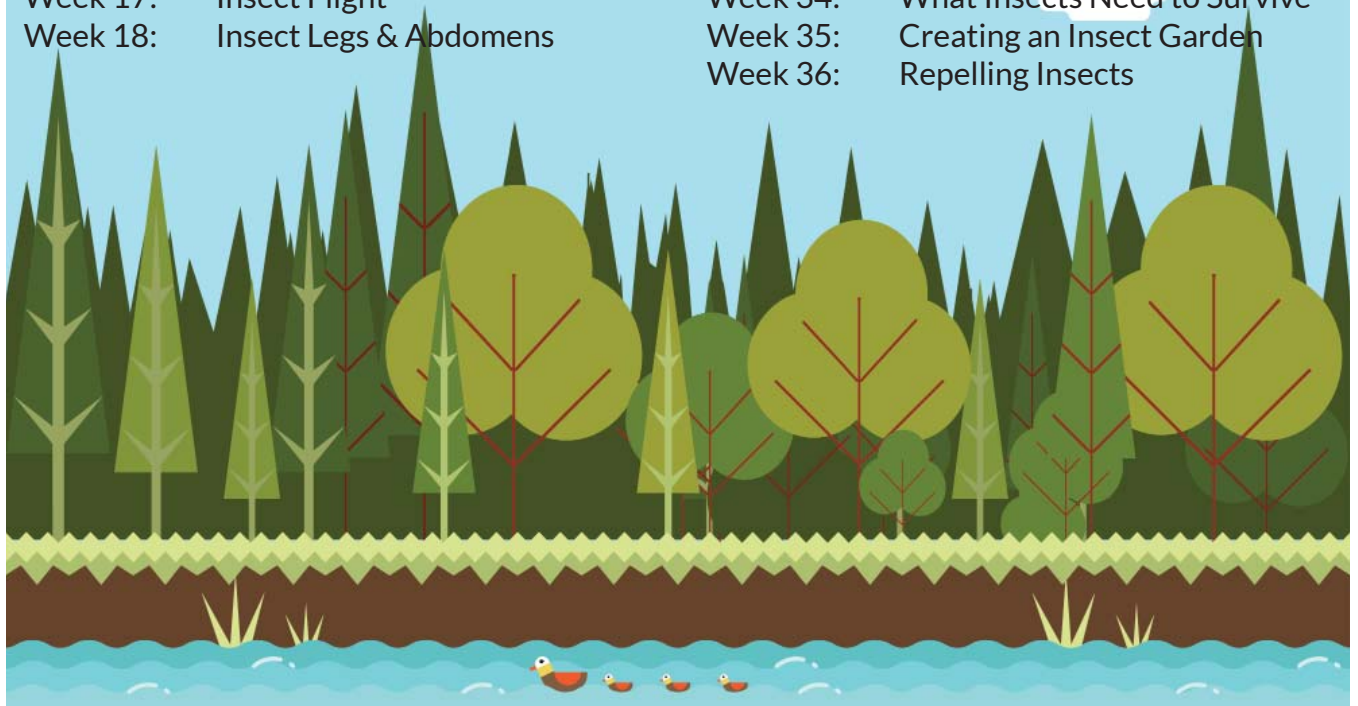
Science for 1st to 4th Grade  
Weekly Overview of Topics

## **BIRDS & PLANTS**

- Week 1: Birds of All Sizes
- Week 2: Bird Feathers
- Week 3: Birds Take Flight!
- Week 4: Bird Tails
- Week 5: Bird Feathers
- Week 6: Birds Survive by Hiding
- Week 7: Bird Feet & Beaks
- Week 8: What Birds Eat
- Week 9: Studying Bird Pellets
- Week 10: Unusual Birds' Nests
- Week 11: Bird Eggs
- Week 12: Birds Hatch & Grow
- Week 13: Bird Watching & Observation
- Week 14: Taking Bird Walks
- Week 15: Hello, Bugs!
- Week 16: Insect Exoskeleton
- Week 17: Insect Flight
- Week 18: Insect Legs & Abdomens

## **INSECTS & PLANTS**

- Week 19: Insect Classification
- Week 20: Insect Body Parts
- Week 21: Insect Metamorphosis
- Week 22: Insect Eggs
- Week 23: Insect Sense of Sight
- Week 24: Insect Sense of Smell
- Week 25: Insect Communication
- Week 26: Insect Ears
- Week 27: Listening to Insects
- Week 28: Catching Insects
- Week 29: Finding Insects
- Week 30: Attracting Insects for Observations
- Week 31: Water Insects
- Week 32: Keeping Insects on Your Own
- Week 33: Endangered Insects
- Week 34: What Insects Need to Survive
- Week 35: Creating an Insect Garden
- Week 36: Repelling Insects





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## Birds of All Sizes Week 1

ONE-DAY SCHEDULE - Complete All  
TWO-DAY SCHEDULE - Divide as Shown

DAY 1	DAY 2
<p><b>READ &amp; COMPLETE:</b></p> <p><u>World of Plants</u> Read Lesson 1 - Page 8-9 Complete "What Did We Learn?" - Page 9 Complete "Taking It Further" - Page 9 Optional: Read "Law of Biogenesis" - Page 10-11</p>	<p><b>READ &amp; COMPLETE:</b></p> <p><u>Bird</u> Read - Pages 6-9 w Pages 6-7 have a lot of evolutionary material on them. But you'll likely want to show your student the bird skeletons on these pages. Pages 8-9 have passing references to evolution and millions of years.</p> <p><u>Take a Backyard Birdwalk</u> Read - Pages 2-3 w end of page ix</p>
<p><b>JOURNALING:</b></p> <p><u>Plant Journal</u> Write in journal results of "Is it Alive?" Scavenger Hunt from activities below.</p>	<p><b>JOURNALING:</b></p> <p>None today.</p>
<p><b>YOUR CHOICE OF ACTIVITIES:</b></p> <p><u>Is it Alive? Scavenger Hunt</u> World of Plants - Page 10 Use copy of "Is it Alive?" Scavenger Hunt Worksheet from the back of this guide, which you likely photocopied.</p>	<p><b>YOUR CHOICE OF ACTIVITIES:</b></p> <p><u>Take Your First Birdwalk</u> Backyard Bird Walk - Page 3 Follow the helps on page 3 to make your first walk a success!</p>
<p><b>Notes</b></p>	

### Insectigations

This year your child will be making two journals: a Plant Journal and an Ant Journal. These will allow them to keep track of experiment results, discoveries, information, creations, activities, etc.

We suggest getting either a notebook that is divided into sections, two notebooks or a three-ring binder with notebook paper.

### E-Guide Plant & Insect Websites

The E-Guide Websites on plants and insects, will link you to various websites that cover plant and insect topics. You must use the "Keywords" that are listed on every page to get to the websites.

### World of Plants

The "What Did We Learn" and "Taking It Further" questions and answers are in the back of this guide. Only the questions appear in the "World of Plants" resource. We have been given permission by the publishing company to provide the answers in this resource.

All the quizzes and tests from this resource is also provided in this guide with the permission of the publishing company due to edition updates.

Any reading listed as optional, is recommended for older students using this program, such as 3rd graders and up.



# Hoot & Chirp, Buzz & Bite

## Bird Feathers Week 2

ONE-DAY SCHEDULE - Complete All  
TWO-DAY SCHEDULE - Divide as Shown

DAY 1	DAY 2
<p align="center"><b>READ &amp; COMPLETE:</b></p> <p><u>World of Plants</u> Read Lesson 2 - Page 12-13 Complete "What Did We Learn?" - Page 14 Complete "Taking It Further" - Page 14 Optional: Read "Dichotomous Key" - Page 14</p>	<p align="center"><b>READ &amp; COMPLETE:</b></p> <p><u>Bird</u> Read about Wings &amp; Takeoff - Page 10-13</p> <p><u>Take a Backyard Birdwalk</u> Read - Pages 4-5</p>
<p align="center"><b>JOURNALING:</b></p> <p><u>Plant Journal</u> Write in journal the answer to "Taking it Further," from page 14 in "World of Plants."</p>	<p align="center"><b>JOURNALING:</b></p> <p>None today.</p>
<p align="center"><b>YOUR CHOICE OF ACTIVITIES:</b></p> <p><u>Animal or Plant?</u> Try game on page 13 of "World of Plants." Use copy of "Clue Cards" Worksheet from the back of this guide, which you likely photocopied.</p>	<p align="center"><b>YOUR CHOICE OF ACTIVITIES:</b></p> <p><u>Sketch Your Back Yard</u> "Backyard Bird Walk" Page 4-5 Draw your back yard and get ready for observations of birds!</p>
<p align="center"><b>VISIT A WEBSITE:</b></p> <p>None Today.</p>	<p align="center"><b>VISIT A WEBSITE:</b></p> <p><u>Life of Birds Website</u> This companion site for the PBS series, "Life of Birds." It contains a lot of information about bird brains, songs and more. It does include evolutionary material, so be sure to browse the site with your student.</p>
<p align="center"><b>Notes</b></p>	