Simply Charlotte Mason presents

# Narration & Nature Study Notebook

by Karen Smith

ed by Charlotte Mass

JACK'S INSECTS

# Make your adventure with Jack and Maggie even more exciting with this Jack's Insects Narration and Nature Study Notebook!

# This handy notebook will help you

- Recall more details with leading narration questions that guide you through each chapter of *Jack's Insects*.
- Learn more about the insects that Jack and Maggie meet by checking out the recommended books and websites.
- See where the insects live as you track the various countries and habitats on the maps provided.
- Discover the insects in your own neighborhood, using the handy master insect list and drawing pages for nature study.
- Gain confidence in nature study through helpful tips on insect observation and drawing.
- Create a personal keepsake of your study of Jack's Insects.

Simply Charlotte Mason

# Jack's Insects

Narration and Nature Study Notebook

by Karen Smith

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# How to Use this Notebook

This book is your narration and nature notebook for *Jack's Insects*. Each lesson will walk you through a chapter of *Jack's Insects*, plus suggest other books and websites to help you learn more about the insects you will meet. You'll find plenty of space to write about what you learn (narration) and to record which insects you see in your neighborhood and beyond (nature study). Don't feel that you must complete a lesson in only one day; you may want to spread some lessons over several days. That's fine.

The suggested books were in print (unless otherwise noted) and the websites were current when this guide was written. You'll find some of the older books free to read online. If you can't find one of the books suggested, don't worry; check your local library for other books that cover the same type of insect and use those. If a website is no longer available, you can ask your parent to help you perform an Internet search for the insect you're researching.

The main thing is to enjoy reading *Jack's Insects* and see what you can learn about those fascinating insects God created!

# Materials Needed

#### Jack's Insects

- Field guides for insects and butterflies. Use what you can find. Our favorites include *National Wildlife Federation: Field Guide to Insects and Spiders of North America* by Arthur V. Evans *Princeton Field Guides: Caterpillars of Eastern North America* by David L. Wagner
- Pencils, colored pencils, or watercolors for recording observations (If you want to paint pictures of the insects, get a sketch book with thick paper.)
- *Field Trips: Bug Hunting, Animal Tracking, Bird-watching, Shore Walking* with Jim Arnosky (optional nature study reference book but highly recommended)

#### Lesson 2

Insect Investigators: Entomologists (Scientists at Work) by Richard Spilsbury

#### Lesson 3

- *The Life Cycles of Butterflies: From Egg to Maturity, a Visual Guide to 23 Common Garden Butterflies* by Judy Burris and Wayne Richards
- (optional) An Extraordinary Life: The Story of a Monarch Butterfly by Laurence Pringle (excellent, but out of print)

#### Lesson 4

*Jungle Bugs: Masters of Camouflage and Mimicry* by Bruce Purser (This book is used for pictures only. The text is full of evolutionary thinking.)

#### Lesson 6

Praying Mantises: Hungry Insect Heroes (Insect World) by Sandra Markle

*Social Life in the Insect World* by Jean Henri Fabre (This book is available free at <u>http://</u><u>simplycm.com/bf/98099</u>.)

#### Lesson 8

Locusts: Insects on the Move by Sandra Markle The Fiddlehoppers: Crickets, Katydids, and Locusts by Phyllis Perry Social Life in the Insect World by Jean Henri Fabre The Bible On the Banks of Plum Creek by Laura Ingalls Wilder

#### Lesson 10

Grasshoppers and Crickets of North America by Sara Swan Miller

#### Lesson 12

*Cicadas!: Strange and Wonderful* by Laurence Pringle *Social Life in the Insect World* by Jean Henri Fabre

#### Lesson 13

Animal Lives: Bees and Wasps (Qeb Animal Lives) by Sally Morgan

#### Lesson 14

*The Glow-Worm and Other Beetles* by Jean Henri Fabre (This book is available free at <u>http://</u><u>simplycm.com/bf/98101</u>.)

#### Lesson 16

Fireflies (Bugs Bugs Bugs) by Margaret Hall

#### Lesson 17

Spiders by Seymour Simon

#### Lesson 20

*Bramble-Bees and Others* by Jean Henri Fabre (This book is available free at <u>http://simplycm.</u> <u>com/bf/98102</u>.)

# How to Draw Insects

#### 1. Draw the shapes.

Most everything you draw is made up of common shapes like circles, triangles, and ovals. So when you observe an insect, look for those basic shapes and where they are in relation to each other.

#### 2. Draw the connecting lines.

Of course, insects are not just several shapes stuck together like a snowman. The basic shapes will form a foundation that you can add to and tweak to better reflect what the insect really looks like.

## 3. Fill in any patterns or special markings.

If you look closely at an insect, you will notice that it is usually not a solid color. Many insects have patterns or special markings on their bodies or wings. Those markings are part of the way God made them unique and often serve a greater purpose than just decoration. Try to faithfully duplicate the patterns and markings where they belong, then you will be ready to add color.

## 4. Add the color.

Color plays an important part in an insect's life. It is part of their natural camouflage or mimicry. (You'll learn more about those self-defense techniques as you read *Jack's Insects*.) So try to match the correct colors as closely as possible, whether you use colored pencils or paint.

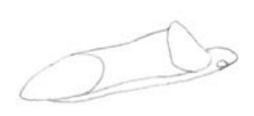
Take a look at how we followed those steps to create the insect drawing on the next page, then try your hand at following the steps with the three insects on page 8.

Helpful Reminders

- Get as close to the insect you're drawing as is safely possible. If you can safely catch the
  insect in a clear glass or plastic container, you might put it in the refrigerator for 15–30
  minutes. The cold will slow the insect down, making it easier to observe and draw. When you
  are done drawing it, release it back where you originally found it.
- Try to draw each insect its actual size.
- Label your drawings.
- Remember that these drawings are not just art exercises. You are drawing the insects to help you observe, learn, and fully appreciate how God made them.
- Listen for the sounds of insects to help you know they are around and to locate them.



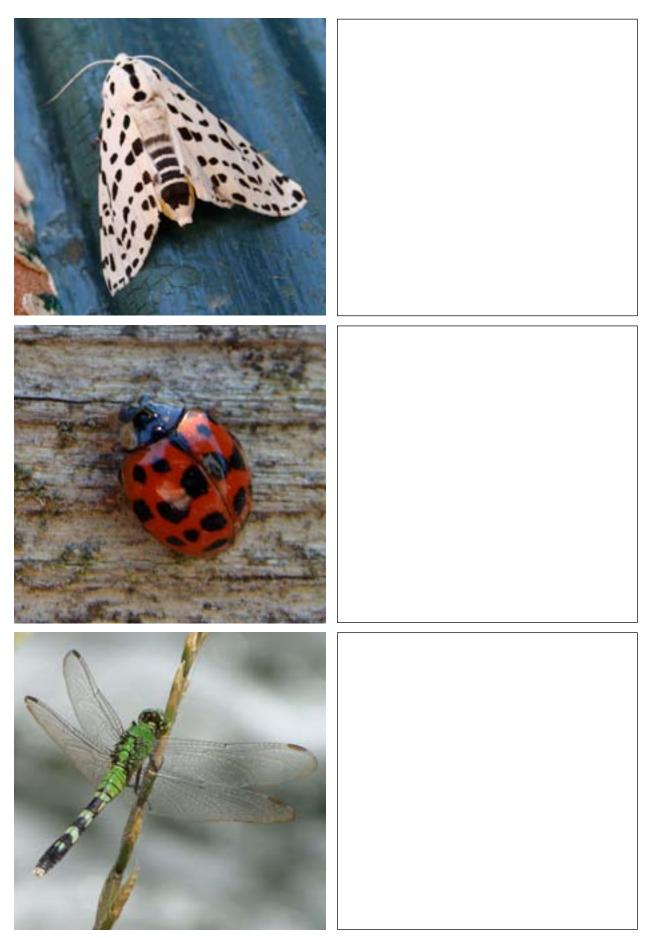












# Lesson 1

# Meet Jack and Maggie

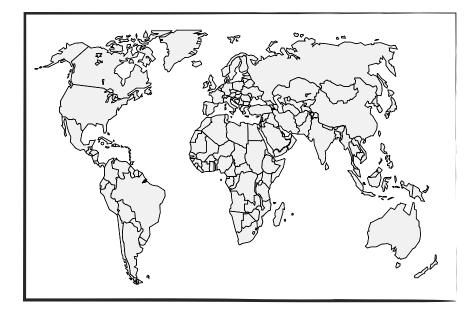
Read Jack's Insects, chapter 1, "Inside the Book."

# Narration

1. Describe Jack's view of entomology.

2. Describe Maggie's thoughts about insects and entomology.

3. Tell about Jack and Maggie's conversation about books and how they got into the book.



On this world map, mark and label the continent where Jack and Maggie found the first insect inside the book: the Great Morpho Butterfly.

Describe its habitat in that country.

# Find Out More

Use a dictionary to define "entomology."

# Nature Study

As you read through *Jack's Insects*, plan time to go outside and look for insects in person. There will be reminders at the ends of the lessons in this book to guide you. You will also find several drawing pages in the back of this book. Drawing is a great way to force yourself to look closely and carefully.

So when you go outside, grab this notebook and flip to the back. You can keep track of which insects and spiders you have seen by checking them off the list on pages

86 through 90. And you can draw them on the labeled pages as you come across the different insects.

If it is too cold outside to find any insects, don't worry. Learn all you can about them now, then when it warms up you can go outside and use what you know to help you find and identify them. Or feel free to draw from a photograph if you can't find any insects or it is too cold to find them.

S-

Reminder: Get Insect Investigators: Entomologists (Scientists at Work) for lesson 2.

# Lesson 2

# Great Morpho Butterfly

Read Jack's Insects, chapter 2, "Jack Promises the Great Morpho Butterfly."

## Narration

1. Describe the first insect Jack and Maggie meet and how it defined *real* entomology.

2. Explain the butterfly's reasons for not killing insects.

3. Describe the promise that was demanded of Jack.

In 1910, when Jack's Insects was written, collecting butterflies was a hobby. Many people collected the chrysalises and butterflies not only for their own collections but to sell to others. A great example of this hobby is Gene Stratton Porter's book, Girl of the Limberlost. Though some people still collect butterflies and other insects today, it is not on the scale that it was when Jack's Insects was written.

# Find Out More

The discussion with the Great Morpho butterfly brings up some interesting questions to ponder. Though the butterfly presented a sometimes popular opinion, let's take some time to think it through. The book *Insect Investigators: Entomologists* (Scientists at Work) by Richard Spilsbury will give you additional information as you consider the questions below.

1. Is man's collecting insects really a great detriment to insect populations? Why?

2. What are some good reasons for killing insects?

3. What benefits are there to studying dead insects?

4. What are some other things that could cause a species to become extinct?

"But even this will not bring you to the end of your pleasures: you must leave the dead to visit the living; you must behold insects when full of life and activity, engaged in their several employments, practising their various arts, pursuing their amours, and preparing habitations for their progeny: you must notice the laying and kind of their eggs; their wonderful metamorphoses; their instincts, whether they be solitary or gregarious; and the other miracles of their history — all of which will open to you a richer mine of amusement and instruction, I speak it without hesitation, than any other department of Natural History can furnish" (William Kirby, An Introduction to Entomology, letter I).



If you would like to see a picture and read more information on Morpho butterflies, visit <u>http://simplycm.com/jacks0201</u>. Remember to ask your parent's permission before visiting any website.

Here's what I found out . . .

# Nature Study

When you are outside doing nature study, see what butterflies and moths you can find in your area. You may want to keep track of which ones you have seen by checking them off the list on pages 86 and 87. On pages 91 and 92 you can draw the butterflies and moths that you see. If you don't see them live, you can draw them by looking at a photograph. Be sure to label each drawing.



*Reminder: Get* The Life Cycles of Butterflies: From Egg to Maturity, a Visual Guide to 23 Common Garden Butterflies for lesson 3. If you can find a copy of An Extraordinary Life: The Story of a Monarch Butterfly, get that out-of-print gem for lesson 3 also.