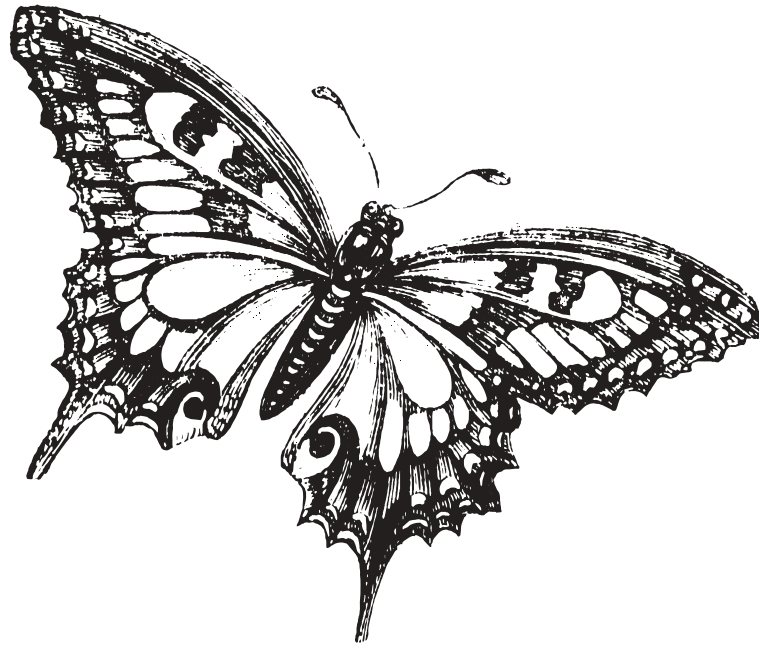


NATURE STUDY HACKING

HOW TO GET OUTSIDE AND USE A NATURE JOURNAL

INSECTS



JOY CHERRICK

NATURESTUDYHACKING.COM

Nature Study Hacking

Insects

Lessons adapted from Anna Botsford Comstock's classic book
Handbook of Nature Study

Created by Joy Cherrick

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*For my friends who long for wide-open spaces
and yet, seem to be firmly planted in the suburbs.*

Introduction to Nature Study

Out-of-Doors

Nature Journal Prompts

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Nature Journal Prompts

Once you've picked out your topic, you will want to start using your nature journal to record your findings, start drawing or even finding poetry to describe the parts of nature you grow to love more deeply. I've included a list here of types of entries that you may include in your journals. You will notice that they aren't all of the drawing variety. As I've studied naturalists, I've found that some love to write words in their journals, some love to draw and date their art and some make lists or track measurements and statistics. In fact, there are as many ways to enter information into a nature journal as there are subjects to study. But, that's a bit overwhelming when we are starting out, isn't it? So here, I am giving you some ideas for types of entries to make in your journals. You can see it as a menu. Take what you like and leave what you don't. I've included the list on one page so that you can print it out separately to use for reference if you so desire.

At the end of this booklet, I've also included weekly lesson plans for those who would like a guide to get you started without the burden of deciding what to do next.

1. Copywork: Anatomy Page (Science/Language Arts/Art)
 - a. copy parts and draw a diagram from a model
 - b. parts of a flower/tree/horse/eye
2. Copywork: Theme Page (Science/Language Arts/Art)
 - a. copy classification types/sizes/shapes etc (i.e. leaf shape, various angles of subject, bird feet types, tree shapes, caterpillar/chrysalis/larvae/eggs/plant it eats etc)
3. Draw Specimen: Label with common name, label with Latin name (Art, Language Arts)
 - a. find an interesting fact about a subject
 - b. Draw parts - i.e bud, flower, leaf, bark pattern, whole shape
4. Narration: (mother record's into Nature Journal if child is too young to write well) (Language Arts)

From a recent nature outing, record the date and location then:

 - a. What did you see and where?
 - b. What were the weather conditions?
 - c. What did you like?
 - d. What did you not like?
5. Narration: Observe a habitat - draw or write about what else lives in/on/around/under/with your subject (Science/Language Arts)
6. Rubbings, tracings and pressings (Art)
7. Phenology wheel month-by-month/day-by-day (Science)
 - a. Select something with a cycle to observe
 - b. Caterpillars, trees, phases of the moon, weather patterns etc
8. Phenology wheel to track one subject throughout the year (Science)
9. Find a poem about the subject and copy it into your Nature Journal (Language Arts)
10. Track growth or patterns with a bar graph (Math)
11. Learn the history of the tree you are observing, use an encyclopedia, reference book or search the Internet with you parents. Record your findings on your page.
12. Draw a map
 - a. Your home, favorite hiking spot, layout of a garden, neighborhood walking route and notable plants/animals/birds you encounter

How to Use This Book

Nature Study Hacking is designed to help you guide your students through the art of studying nature and keeping a Nature Journal. These principles are old, but this application is new. The ideas from Anna Comstock's classic book *Handbook of Nature Study* are combined with the ideas of modern naturalists and educators such as Clare Walker Leslie, Charles E. Roth, Cindy Rollins and Jeannette Tulis.

The lessons are designed to be short. They begin with observation. In observing nature first-hand, we begin to develop a relationship with it that can't be duplicated. This is because we are able to engage the totality of our five senses and get to know a thing in its home. I know that when I have friends over to my home they are able to know and understand me more fully. This is the same with nature.

Reading must accompany any nature lesson. A book about nature lore or a book that describes the way these animals behave and live is essential to the study of nature. I've included the selection from *Handbook of Nature Study* with each animal. I've shortened them slightly and updated some of the language so that you can just jump straight to the reading while you present your lesson or perhaps you read about the animal during your Morning Time or bedtime or other family learning. (That is up to you!) Please don't skip the readings though, you will miss so much knowledge.

Diagrams are used to show or label to help teach us to call nature by name. When we know the name of something we, once again, develop a closer relationship with it. We *know* it. The lessons use copywork in order to help us remember and to know. This should be a delight and a means to the greater end of learning about nature.

With care, I've woven in a variety of types of Nature Journal entries into this series. Copywork, vocabulary, writing, math, map-making, research, reading and more are incorporated so that as you study your chosen topic, you can also explore it on a variety of levels. In addition, keeping a Nature Journal is not just about painting beautiful watercolor paintings. You will enjoy learning about many different types of entries as you go through our study together! I've designed the lessons with the aim of two lessons each week over a twelve week term. However, you can do as many or as few as you'd like. My goal is to help you establish the habit of using a Nature Journal. This book is the support to help you achieve this. It's designed to serve families first and foremost.

Lastly, throughout the study you will enjoy a few "breathing lessons." I've titled them "Review, Improve & Delight." These help us and our students to take the time and care to go back over our work and add to it, clean it up and make it better. The habit of taking the time to carefully improve our work can help us not only review what we have done, but also help us enjoy what we've done and find ways to improve it.

We'd love to hear about how you are nature study hacking! Please use #naturestudyhacking on social media if you are enjoying your booklet! Please contact us at www.naturestudyhacking.com with questions, give fives and any ideas for improving this valuable resource for families beginning their own Nature Study Hacking journey!

Setting up Your Nature Journal

Nature Study Hacking means that there are tricks and tips to share with you to make your life simpler! Before you begin studying and journaling you will first need to set up your journal. Be sure to use a pencil and have your eraser handy when you first start laying out your pages so that you can erase markings easily. This is YOUR journal, you are going to be working little by little to add to it just how you'd like. If you'd rather draw or paint something on a separate sheet of paper, cut it out and paste it into your notebook, you are welcome to do that. If you'd like to write directly into your notebook, that works as well! Just remember we are all learning a NEW way to use our Nature Journals, so mistakes are part of the learning process!

For clickable links and up-to-date resources head to my resources page: <https://naturestudyhacking.com/resources/insects-resources-and-links>

Here's your supply list:

1. Minimalism Art sketchbook (This my favorite brand) or Dot grid notebook
2. Ticonderoga pencils and an eraser
3. Prisma colored pencils (preferred for younger children)
4. Books:
 - a. *Handbook of Nature Study* by Anna Comstock
 - b. *Wildlife Folklore* by Laura C. Martin (lore about various insects)
 - c. *Creep and Flutter: The Secret World of Insects and Spiders* by Jim Arnosky (if you are only going to use one book, this is it!)
 - d. *Insect Adventures* by Jean-Henri Fabre (habits and dwellings of insects. Fabre shares his wonder of the insect world in this fascinating book.)
 - e. *The Honey Makers* by Gail Gibbons (An excellent picture book about honeybees.)
 - f. *From Caterpillar to Butterfly* by Deborah Heiligman (An excellent picture book about the life cycle of a butterfly)
5. Nature for object lessons
 - a. Painted Lady Butterfly Larva (ordered online: <https://naturestudyhacking.com/resources/insects-resources-and-links>)
 - b. Cricket (available at most pet stores)
 - c. Housefly (study the ones near your home)
 - d. Ant (study the ones near your home or order a kit online for closer study)
 - e. Ladybug (order online: <https://naturestudyhacking.com/resources/insects-resources-and-links>)

Setting up Your Nature Journal Continued

Step 1: Now that you have your supplies, open your Nature Journal. The first page on the right of most books is called the “Title Page”. This is where you will write your name, your age and “Nature Journal” - that’s the Title of your book! Make sure your writing is neat and clean so that others can read it.

Step 2: Perpetual Journal set up: Flip to the back of your book. Starting with the last spread (two pages together) and working backwards (toward the front of your book), write the months of the year on the top left corner of the left hand page. I like to start with December, November etc and working my way into the center of the book until I come to January. This creates a “Perpetual Journal” where you can make entries about what you encounter during that month. You will be able to add a little bit to these pages over time. These entries can be about anything you find in nature and want to record into your Nature Journal (even if you aren’t studying that topic!)

Insects

Insect Introduction | Lesson 1

Supply List:

1. A book about insects OR computer/device
2. Nature Journal
3. Pencil
4. Book about Insects
 - *Creep and Flutter: The Secret World of Insects and Spiders* by Jim Arnosky

Step 1: Read about insects OR you may watch this video introducing Insects by FreeSchool called “All About Insects for Children: Bees, Butterflies, Ladybugs, Ants and Flies for Kids - FreeSchool.” Go to the resources page for the direct link to this video: <https://naturestudyhacking.com/resources/insects-resources-and-links>

Step 2: Tell back something NEW that you learned about insects from the reading or the video. Questions to consider: What makes an insect different from an arachnid? What three parts do all insects have? Do all insects have wings? Do insects breathe air?

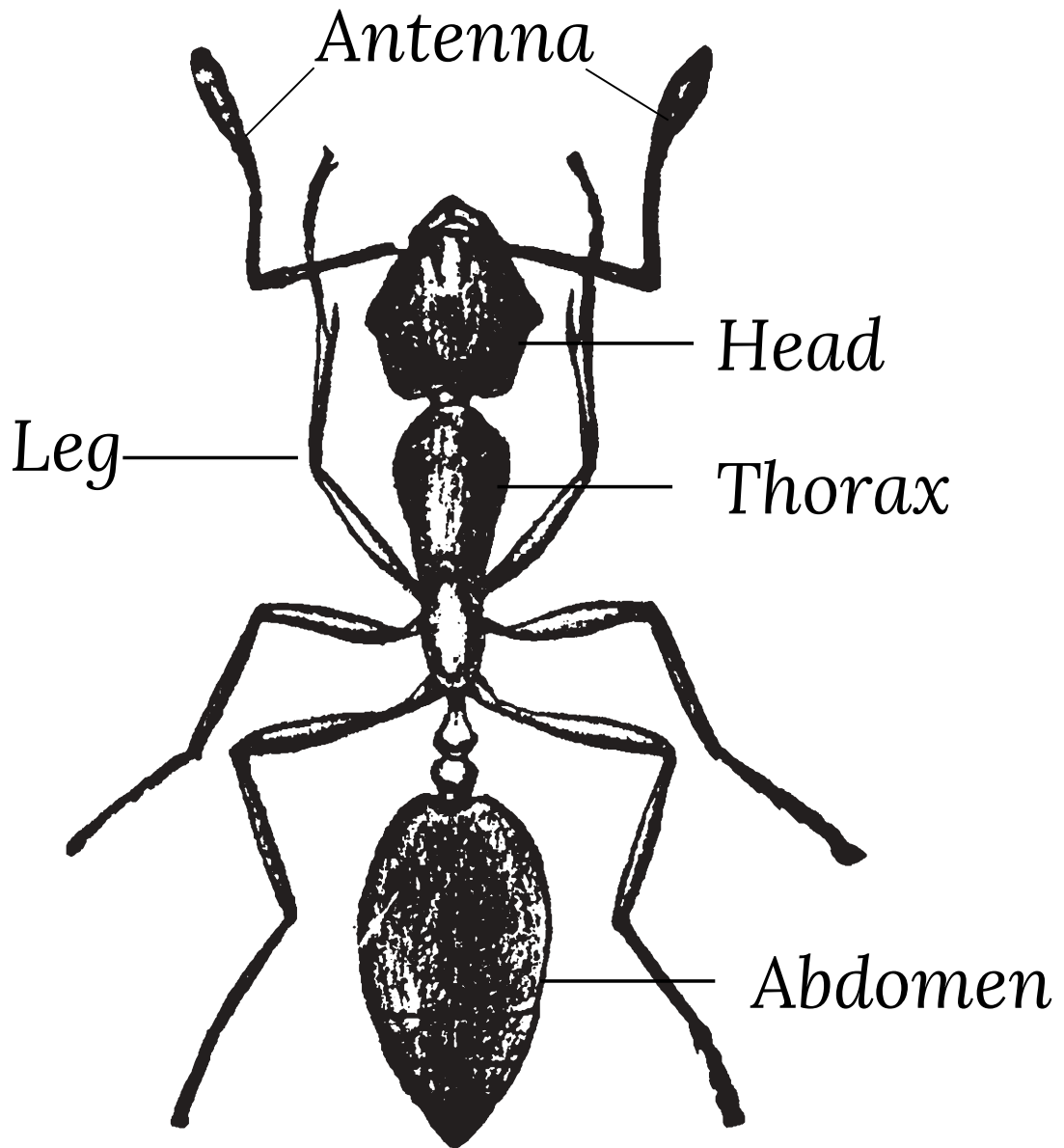
Younger Students: Write one sentence or draw a picture from the reading into Nature Journals .

Older Students: Write a longer narration (1 paragraph) into Nature Journal and/or copying a more advanced image from a book.

Additional Resources about Insects:

- a. *Handbook of Nature Study* p. 294-415
- b. *Insect Adventures* by Jean-Henri Fabre (Chapter XVII The Boy Who Loved Insects)
- c. Links and videos: <https://naturestudyhacking.com/resources/insects-resources-and-links>

Parts of an Insect



"Insect" comes from the Latin name, *insectum*, meaning notched. This refers to the body that is divided into three main sections.

Parts of an Insect | Lesson 2

Supply List:

1. Pencil and eraser
2. Nature Journal

Step 1: Open your Nature Journal to the next blank page. Today you will draw an insect and label its parts. (See the “Parts of an Insect” diagram.)

Step 2: Working slowly and carefully, copy the picture into your Nature Journal. Carefully label the parts of the Insect.

Perpetual Journal Entry | Lesson 10

Supply List:

1. Nature Journal
2. Pencil and eraser

Step 1: Go outside for five minutes and pay attention to the trees and flowers. Do you see any bugs on them? Look up. Look down. Look closely.

Step 2: In your Nature Journal, in the back where you wrote the names of the months, draw a picture showing ONE small thing that you observed while outside. Are the trees budding or do they have leaves? Only draw the bud or one leaf (not the whole tree). Is there a flower in bloom? Draw one flower and perhaps, the shape of the flower's leaf. Choose one thing to draw well.

Step 3: Write today's date and label your picture.

Insects | Exam Week

Supply List:

1. Nature Journal
2. Pencils and erasers

Step 1: Look through your Nature Journal you created this term. Look at the pages where you recorded information about various insects. Spend about 5-10 minutes.

Step 2: Tell a parent all you know about insects. You may use your Nature Journal to demonstrate and show examples of what you remember. Be sure to include the most interesting thing that you learned.

(Note to parent: you may choose to write down what your child says or record their narration on video.)

Resources

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- *The Honey Makers* by Gail Gibbons (honeybees)
- *From Caterpillar to Butterfly* by Deborah Heiligman

Nature for object lessons

- Painted Lady Butterfly Larva (order online - see resources link above)
- Cricket (available at most pet stores)
- Housefly (study the ones near your home)
- Ant (study the ones near your home or order a kit online for closer study)
- Ladybug (order online - see resources link above)
- Device for watching videos for a closer look - may be used instead of readings

Nature Drawing help for early elementary:

How to Draw Almost Everything by Chika Miyata

PNEU Articles on Nature Study as inspiration:

<https://www.amblesideonline.org/PR/PR07p332NaturalHistory.shtml>

<https://www.amblesideonline.org/PR/PR41p000CharmNatureStudy.shtml>

Handbook of Nature Study:

Insects , p. 294-448

About Joy Cherrick

Joy is a wife to a very entrepreneurial husband and mother to six children.

She enjoys researching and sharing what she uncovers with others to help make their lives easier. She loves Jesus and bringing aspects of His creation to light in our fast-paced world. She is insatiably curious and loves that there are infinite things to learn. You can usually find her at home, her favorite place to work and rest.

Connect with Joy on Instagram [@joycherrick](#) or her YouTube Channel www.youtube.com/user/joycherrick, where she has a collection of videos about Nature Study, Charlotte Mason Homeschooling and Family Life.

Books in the Nature Study Hacking Series

Nature Study Hacking - Trees

Nature Study Hacking - Stars & Skies

Nature Study Hacking - Weather, Wind & Water

Nature Study Hacking - Cultivated Crops & Weeds

Nature Study Hacking - Insects

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