

Science

Advanced Nature Study Lessons
Advanced Nature Study Afternoon Work

SAMPLE





About the Course

This course includes the following topic(s): Advanced Nature Study Lessons, Advanced Nature Study Afternoon Work

About Advanced Nature Study Lessons

An elective in Environmental Science, Advanced Nature Study requires independent interest as it is designed to be personalized by the student and requires some flexibility in scheduling due to the amount of fieldwork required beyond the regular lesson time.



Placement & Combining Tips

Advanced Nature Study Lessons

Students should have at least 3 years of nature study experience and be comfortable with their nature journal.



Scheduling

GRADE	SCHEDULE INFO.	BOOKS
9-12	Advanced Nature Study Lessons 5 times/week 45 min	Master of Field Arts
9-12	Advanced Nature Study Afternoon Work 1+ time/week 20 min+	

Sample Weekly View

Day 1	Day 2	Day 3	Day 4	Day 5
Science: Advanced Nature Study				
Advanced Nature Study Lessons	Advanced Nature Study Lessons	Advanced Nature Study Lessons	Advanced Nature Study Lessons	Advanced Nature Study Lessons Advanced Nature Study Afternoon Work



Planning & Prep

Permission to print for non-commercial use. See Alveary group use policy to use lessons in a group context.

LINKS: Click text or scan the QR code in the top corner of the lesson plan pages to view online resources associated with the lessons.

Responsibility for previewing all links rests with the teacher. All links were checked at the time of publication; however, websites change frequently and may contain objectionable content. Please report broken links by contacting us through our website.

Advanced Nature Study Lessons

Download, save, bookmark, or print a copy of How to Teach Nature Journaling for regular use.



Books & Resources

For book rationales and purchase options, click the Book List link or scan the QR code below.

∞ [View Book List Details](#)

Science: Advanced Nature Study

Advanced Nature Study Lessons



Master of Field Arts



Supplies

For supply list details and basic supplies helpful to have on hand, click the links or scan the QR code below.

∞ [View Basic Supplies](#)

∞ [View Supply List Details](#)

Science: Advanced Nature Study



Clear Perspex Palette with Magnet Strip and Dry-Erase Marker



Quick Links

Science: Advanced Nature Study

Advanced Nature Study Lessons

- ∞ [Seek app from iNaturalist](#)
- ∞ [SHOP — Exploring Overland](#)
- ∞ [How to Teach Nature Journaling](#)
- ∞ [A Community for Naturalists · iNaturalist](#)

Click THIS text or scan the QR code for links.





Term 1

WEEK 1 45m Advanced Nature Study Lessons - Lesson 1

Sections 1-3

Materials: Master of Field Arts, Journal

→ INTRO

As we start our nature journaling adventure, it is important to remember local, state, and federal laws about collecting and specific concerns when in the field. Look up any local or state laws that you need to be aware of.

→ READ

∞ Article Link: Leave No Trace (7 Principles)

∞ Article Link: Can I Keep This?

→ INTRO

As we begin working through our Master of Field Arts book, we will start with a look at various tools that Roseann recommends. You may already have some of these tools or a variation of them. You may already use some or all of these tools in your nature study. The goal is to gather new ideas for tools and practices. There is only one tool that you were required to purchase for this course, and that was the Perspex Palette (see the supply list), as we will be using it quite a bit. For the rest of the items, you are free to evaluate and decide what you want to add to aid you in further observation and study. You can look up items mentioned in the chapter, and there will be links to additional or similar items, at times included in the lesson.

→ READ

p.7-17

→ LOCATE

Check to see if you already own any of the items mentioned or something similar. If not, consider whether you want to purchase any items for further exploration. You may want to try out your phone's built-in magnifier. Search in your Apps to find the magnifier and look up how to use it.

→ VIEW

Take a look at some other interesting historical field notebooks.

∞ Article Link: Field Notebooks - Tumamoc Sketchbook

→ JOURNAL

If you have any time left, use some form of magnification like a loupe, magnifying glass, binoculars, microscope, or your phone to view something from nature and replicate it in your journal.

• EXTRA HELPING

If interested, take a look at a loupe and these binoculars.

∞ **Item Link:** 10x and/or 30x (good for plant parts) Loupe (This item is from Amazon, but also take a look at Roseann's Discovery Kit on her website, which includes a basic loupe. Don't forget about her generous discount code offering 25% off any products in her store, which you can use throughout this course.)

∞ **Item Link:** Close Focus Binoculars recommended by John Muir Laws

WEEK 1 45m Advanced Nature Study Lessons - Lesson 2

Sections 1-3

Materials: How to Teach Nature Journaling, Journal

→ INTRO

Today is a journaling day. A prompt from John Muir Laws' book, How to Teach Nature Journaling, will provide some focus for today's journaling. You will be introduced to one or two prompts each week to give you many observation tools to use in your nature study. Use the link in the quick links to download a free digital copy of the book or purchase a paperback copy if you prefer.

As you read the instructions each time, note the helps in teaching these skills to others. Be thinking about someone you could introduce nature journaling to, and/or share the joys of nature journaling with, and look for

• EXTRA HELPING

If interested, take a look at Roseann's homemade leather nature journal cover. Maybe you want to make one for yourself!
∞ **Article Link:** Roseann's nature journal cover



Term 1

opportunities to show them what you are learning. It might be a family member, a neighbor, or a friend.

→ READ OR VIEW

p.36-38 (in How to Teach Nature Journaling)

∞ Video Link: I Notice, I Wonder...

→ JOURNAL

Head outside or bring something inside to practice INIWIRMO on (I notice, I wonder, It reminds me of).

WEEK 1 45m Advanced Nature Study Lessons - Lesson 3

Sections 1-3

Materials: Master of Field Arts

→ READ

p.18-26 skip p.25 as we will come back to this later. We will spend some dedicated time later in the course on collecting and drawing tracks in your journal

→ LOCATE

There are many measuring and collecting options mentioned in the reading. See what you can find at home to use. Then, think through what you might want to purchase to start using in the field.

A pocket knife may be in a kitchen drawer, or a family member may have one that you could use.

Also, consider what options are on your phone for measuring heights and widths as well as angles. Find the Measure App and look up how to use it. Practice using it for heights as well as angles.

The End Notes start on p.159 and have many links for the items mentioned in the reading. You will need to figure out how you want to carry these items while you are in the field. See what bag options you have available and start taking your tools with you!

• EXTRA HELPING

If interested, here are a few links to a couple of the items mentioned in the reading.

∞ Link: Pocket Net

∞ Link: Kestrel weather stations

∞ Link: Morakniv Clipper

∞ Link: Nature Journaling Field Bag (Could be a great Christmas or birthday gift idea!)

∞ Article Link: Preserving skulls and insects

WEEK 1 45m Advanced Nature Study Lessons - Lesson 4

Materials: Journal

→ JOURNAL

Head outside and use the tools that you have collected to start investigating, observing, and journaling!

• EXTRA HELPING

If interested, here is a deep dive into choosing and using binoculars and scopes.

∞ Video Link: Binoculars

WEEK 1 45m Advanced Nature Study Lessons - Lesson 5

Materials: Journal

→ JOURNAL

Enjoy!

WEEK 1 20m Advanced Nature Study Afternoon Work - Lesson 1

→ FIELD WORK

Don't forget to schedule an extended time of exploring and nature journaling sometime each week for the lab component of this course. The more pencil miles you put in, as John Muir Laws says, the better your sketching and journaling skills will get!



Term 1

WEEK 2 ☐ 45m Advanced Nature Study Lessons - Lesson 6

Sections 1-3

☐ Materials: Master of Field Arts

→ INTRO

Let's step back for a moment to think about some term and school-year-long projects for this course. One of the joys of regular journaling is being able to see and observe seasonal changes. This is the study of phenology. Charlotte Mason had students create a Book of Firsts or add this component to their nature journals. Whenever you notice something for the first time in a season, such as the first frost, snowflakes, hurricane, plant blooms, bird, or butterfly, record the date on a perpetual calendar or in your nature journal. As you do this year after year, you start to notice patterns and deviations from patterns that are fascinating!

→ READ

p.157-158

→ PLAN

Take some time to think about what locations around you would make an interesting Phenology Study. Choose one or two places to visit each week for the whole school year. This might be in your yard, down the street, or somewhere not far from where you live. You want it to be accessible so that you will be sure to go there every week to record changes and capture what you are seeing. Record the changes observed via words, pictures, sketches, measurements, etc., in your journal. Follow the suggestions in your reading on p.158.

Then, choose a couple of items to do a term or single-season study, such as a single tree, plant, bird, or even a seed you grow in a pot. Take the time of year into account when choosing. This is described in your reading as a small or medium-scale study. But you are not limited to the examples in the book. Find something close to where you live that you are interested in studying. Choose when in the year you will do your studies. When you are ready, write down your plan for what you are studying and when in your week you will do your specific observations and journaling for your special studies. You might want to use a separate journal for your year-long study and term studies. It will be so interesting to read back over your journal entries for this one area or item and see the changes!

→ READ

Another aspect of advanced nature study that we want to be a part of now and perhaps into the future is some sort of citizen science project. Take some time to read about some potential studies that pertain to your area using the links provided. Find one that you want to participate in. Nature's Notebook might have a project that relates to what you chose for your phenological study. Sign up for the project that interests you and follow the directions to get set up to start. Your observations are important and valuable contributions to science!

∞ Article Link: 9 Citizen Science Projects

∞ Article Link: Citizen Science

∞ Article Link: 20 Citizen Science Projects

∞ Article Link: Nature's Notebook

• EXTRA HELPING

If you are interested in adding a Book of Firsts to your different journals, take a look at Nathaniel Wheelwright and Bernd Heinrich's beautiful notebook.

∞ Link: The Naturalist's Notebook

WEEK 2 ☐ 45m Advanced Nature Study Lessons - Lesson 7

☐ Materials: Journal

→ JOURNAL

Enjoy!



Term 1

If nothing on the citizen science sites seemed interesting, try Project Squirrel!
∞ Link: Project Squirrel

WEEK 2 ☐ 45m Advanced Nature Study Lessons - Lesson 8

Sections 1-3

☐ Materials: Master of Field Arts

→ INTRO

Roseann is a seasoned naturalist and describes her method of taking field notes, journaling, and organizing her notes for later scientific study and writing projects. Don't get bogged down in the details of Part One (p.27-33). Reading about her process is helpful to see how a naturalist documents all of their work. Part 2, starting on p.34, will have some more practical information about metadata that you may want to incorporate into your journal pages.

→ READ

p.27-40

There is no right way to keep a journal. The main idea is to work in your journal at least four times a week to grow in all the skills and wonder of seeing what God has made! Try out new ideas and see what works best for you.

WEEK 2 ☐ 45m Advanced Nature Study Lessons - Lesson 9

☐ Materials: How to Teach Nature Journaling, Journal

→ INTRO

Today is a journaling day. A prompt from John Muir Laws' book, How to Teach Nature Journaling, will provide some focus for today's journaling.

→ READ

p.88, 89, 91

→ JOURNAL

Use the 5 Ws and 1 H to observe and journal today.

● PLAN WEEKLY

- ☐ special study observations
- ☐ citizen science observations
- ☐ extended journaling time

WEEK 2 ☐ 45m Advanced Nature Study Lessons - Lesson 10

☐ Materials: Journal

→ VIEW

∞ Video Link: NJC Metadata

→ JOURNAL

If you aren't already in the practice of adding metadata to your page, start today to add the date, time, location, weather, and any other identifiers you want to add.

WEEK 2 ☐ 20m Advanced Nature Study Afternoon Work - Lesson 2

→ FIELD WORK

Spend an extended time on field work.

WEEK 3 ☐ 45m Advanced Nature Study Lessons - Lesson 11

Section 1-3

☐ Materials: Master of Field Arts, Journal

→ INTRO

Today, we will start with the humble pencil!

● EXTRA HELPING

If interested, watch how a pencil is made!

∞ Video Link: Pencils



Term 1

→ **READ**
p.41-46

→ **VIEW**
Watch John Muir Laws explain other ways to use relative measurements to get the proportions right on your page.
∞ Video Link: NJC Measured Drawings

→ **JOURNAL**
Practice mapping out some objects with dots and using relative measurements to aid you in your sketches.

WEEK 3 45m Advanced Nature Study Lessons - Lesson 12

Materials: Journal

→ **JOURNAL**
Enjoy!

WEEK 3 45m Advanced Nature Study Lessons - Lesson 13

Materials: Paper, Pencil

→ **VIEW**
Drawing is useful for more things than nature study. Watch this talk on how drawing helps you think.
∞ Video Link: How Drawing Helps You Think

→ **READ & PRACTICE**
As you read through the article, practice each type of exercise so you will be able to incorporate these into your journaling routine.
∞ Article Link: 12 Simple Warm-Up Exercises

• PLAN WEEKLY

- special study observations
- citizen science observations
- extended journaling time

WEEK 3 45m Advanced Nature Study Lessons - Lesson 14

Materials: How to Teach Nature Journaling, Journal

→ **READ**
p.64-66

→ **VIEW**
∞ Picture Link: Durer's The Great Piece of Turf from 1503, measuring 40.8 x 31.5 cms

→ **JOURNAL**
Set up your sting and start recording what you find!

WEEK 3 45m Advanced Nature Study Lessons - Lesson 15

Materials: Journal

→ **JOURNAL**
Enjoy!

WEEK 3 20m Advanced Nature Study Afternoon Work - Lesson 3

→ **FIELD WORK**
Spend an extended time on field work.