

Science Scope and Sequence for Meadowlark Collective

Nature knowledge is most important for young children. It would be well if all persons in authority, parents and all who act for parents, could make up our minds that there is no sort of knowledge to be got in these early years so valuable to children as that which they get for themselves of the world they live in. Let them once get in touch with nature, and a habit is formed which will be a source of delight through life. We were all meant to be naturalists, each in his degree, and it is inexcusable to live in a world so full of the marvels of plant and animal life and to care for none of these things.

- Charlotte Mason, *Home Education*

Because real education directs our hearts and minds toward a deep and rich love for God and this world that he created, we believe that the study of science should offer children ample time to be in nature. Through this unhurried time, children are granted an opportunity to develop their own personal relationships with the world around them. We believe that students should begin their scientific education by developing habits of observing the natural rhythms and patterns of the natural world, recording their observations in personal journals, and reading nature books that are rich with ideas that spark wonder and curiosity. **We are confident that this type of learning during their early elementary through middle school years will develop a sturdy foundation for high school lab sciences.**

Each week our Lower School students will be introduced to an aspect of nature in their class time, and will then spend much of their Collective Day outside exploring that area of interest. Our Lower and Upper Elementary students will work through year-long topical studies that will allow them time to settle in and become well acquainted with each year's focus of study. Middle School students at Meadowlark Collective will venture into the worlds of biology, chemistry, physics and astronomy as a stepping-stone toward high school level lab sciences. Upper School students will study Earth Science, Biology, Chemistry and Physics, and complete lab work alongside their studies. All levels will enjoy nature lore from living books and participate in nature study assignments throughout the week at home. Older students will be given opportunities to narrow their focus as they conduct scientific research and experiments on topics of their choosing. Because narration, the act of explaining what one has seen or heard in his own words, is such a powerful tool for processing ideas, it will serve as the primary way students record their work. Science at Meadowlark will be structured with the goal of making it easy and delightful for mothers teaching at home to remain involved in their student's work. While each class level will have their own areas of study each year, the special studies, nature journaling assignments and nature lore readings can easily be combined across grade levels in families.

When children are old enough to understand that science itself is in a sense sacred, and demands some sacrifice, all the common information they have been gathering until then, and the habits of observation they have acquired, will form an excellent groundwork for a scientific education. In the meantime let them consider the lilies of the field and fowls of the air. – PNEU article “The Charm of Nature Study”, G. Dowton

(For further guidance in keeping nature journals with your children, you will find a thorough list of instructional resources at the end of this document.)

What does this look like across each class level at Meadowlark Collective?

Lower School (K-2nd)

- Nature Lore read-alouds
- Outdoor exploration
- Hands-on nature activities
- Begin to keep nature journals
- * Grade 2 students will begin the practice of working on nature journals at home and then bringing them back to class. Students will take turns presenting their work for their classmates as a form of narration.
- * Grade 2 students will be introduced to directional concepts (North, South, East, West), Earth rotation, globe exploration (equator, latitude, longitude), planets

Class time: Introduce new nature topics through stories. Explore topics through observation outside, hands-on activities and journaling.

Weekly work:

K-1st: students will complete all work in class, with optional resources for parents to enjoy with their children at home.

2nd: students will have special studies and nature lore readings to complete and narrate to parents at home. Parents can record oral narrations for their children in their notebooks.

Resources: *Exploring Nature With Children, Outdoor Secrets, The Pond and Stream Companion, Sabbath Mood Homeschool on Nature Lore and Special Studies, [nature journal](#)*

Lower Elementary (3rd/4th)

- Year-long topical study with at-home reading and narration
- Special studies for observation during at-home nature walks
- Independent nature lore reading
- Keeping a nature journal
- Science presentation

Class Time: Collective Days will be spent talking about the previous week's reading and participating in hands-on activities.

Weekly work: Students should be sent home with clear assignments for each day. Daily work should include reading and some form of writing, such as a narration or an illustration. Because students are just beginning to write their own narrations at this age, parents are welcome to record oral narrations for their student. Students will be assigned nature walks with a particular special study to observe. Students will choose a nature lore book to be reading and narrating independently. Daily work should include about 20 minutes of reading, narrating and some time outside each day.

Resources: [Mammals](#) (Year One) and [Insects](#) (Year Two), [Sabbath Mood Homeschool on Nature Lore and Special Studies](#), projects and presentations, [nature journal](#)

Upper Elementary (5th/6th)

- Year-long topical study with at-home reading and narration
- Special studies for observation during at-home nature walks
- Independent nature lore reading
- Keeping a nature journal
- Science presentation or project

Class Time: Collective Days will be spent talking about the previous week's reading and participating in hands-on activities.

Weekly work: Students should be sent home with clear assignments for each day. Daily work should include reading and some form of writing, such as a narration or an illustration. Students should be encouraged toward writing their own narrations by this time and recording their observations in their journals. Special Studies will include assigned nature walks with a particular nature focus to observe. Students will record their observations with a detailed entry in their nature journals each week. Students will choose a nature lore book to be reading and narrating on either independently or as a family. Daily work should include about 25 minutes of reading and narrating and some time outside each day.

Resources: [Birds](#) (Year One) and [Trees](#) (Year Two), [Nature's Beautiful Order](#) (spread out over both years), [Sabbath Mood Homeschool on Nature Lore and Special Studies](#), [nature journal](#), end of year projects and presentations

Middle School (7th/8th)

- Begin semester-long studies of Biology, Chemistry, Physics and Earth Science with at-home reading and narration
- Students will begin to take tests and quizzes at this level
- Special studies for observation during at-home nature walks
- Independent nature lore reading
- Keeping a nature journal
- Science presentation or project

Class Time: Collective Days will be spent talking about the previous week's reading and participating in hands-on activities.

Weekly work: Students should be sent home with clear assignments for each day. Daily work should include reading and some form of writing, such as a narration or an illustration, as well as the completion of supplemental questions. Students at this level can begin to take provided tests at the parent's discretion. Students will choose a nature lore book to be reading and narrating on independently. Daily work should include about 30-40 minutes of reading and narrating and some time outside each day.

Resources: [Exploring Biology](#) and [Exploring Astronomy](#) (Year One) and [Exploring Chemistry](#) and [Exploring Physics](#) (Year Two), [Sabbath Mood Homeschool on Nature Lore and Special Studies](#), [nature journal](#) projects and presentations

Upper School (9th-10th)

- Begin year-long lab science work
- Keep a nature journal
- End-of-Year project

Class Time: Collective Days will be spent discussing work from previous week, lecture on new module, and lab work.

Weekly Work: Students will be sent home with clear assignments for each day. Daily work will include reading, narrating, answering questions, working on lab reports, research, and working on projects. Students will also keep a nature journal. Daily work should include about 35-50 minutes of reading and narrating, as well as time outside each day. Students will take tests and quizzes, as well as receive grades for research papers, projects and presentations.

Resources: [Earth Science](#) (Year One) and Biology (tbd) (Year Two)

Upper School (11th-12th)

- Year-long lab science work
- Keep a nature journal
- End-of-Year project

Class Time: Collective Days will be spent discussing work from previous week, lecture on new module, and lab work.

Weekly Work: Students will be sent home with clear assignments for each day. Daily work will include reading, narrating, answering questions, working on lab reports, research, and working on projects. Students will also keep a nature journal. Daily work should include about 35-50 minutes of reading and narrating, as well as time outside each day. Students will take tests and quizzes, as well as receive grades for research papers, projects and presentations.

Resources: Physics (tbd) (Year One) and Chemistry (tbd) (Year Two)

Recommended resources for implementing nature journaling at home:

At Meadowlark Collective, our Finches (2nd grade) through 8th graders keep Nature Journals for part of Science class. Occasionally our Upper School students are asked to keep them as well, depending on the credit they are working on. In order to help our parents better understand what we are looking for we have compiled a guide for their students to help them have ONE well crafted journal entry each week to bring to class to show. If you are new to this part of homeschooling or would like to be inspired again, please take a few minutes to enjoy these resources.

Video:

 [How to Do Nature Study](#)

(Originally published by [Simply Charlotte Mason](#) Used by permission.)

We also searched the web to find some examples for our Meadowlark families to see what it looks like to have a successful nature study and nature journaling time at home. We chose two resources for you to look at to give you encouragement.

Video:

 [How We Do Nature Journaling | Charlotte Mason Inspired Homeschool](#)

Blog post (great example of some nature journals at varying levels of ability):

[Joyous Lessons](#)

BONUS: Of course, we cannot help but point you to a true master, John Muir Laws. His YouTube channel has hours of information on it!

[John Muir Laws, videos](#)

To help develop these particular journaling skills, we request that families purchase specific journals that have some guides in them.

[2nd-6th grade journals](#)

[7th through 12th grade journals](#)