

# Science

Nature Walks & Scouting  
General Science  
Natural History  
Nature Notebook

SAMPLE





## About the Course

In level 2, learners are developing familiarity and friendship with Creation through a broader scope of Things, more challenging text, and slightly more abstract concepts.

This course includes the following topic(s): General Science: Grade 2, Natural History: Grade 2, Nature Notebook: Grade 2, Nature Walks & Scouting: Grades 1-8

### About Nature Walks & Scouting: Grades 1-8

Students spend time once each week on a longer excursion. Prompts can be found in Outdoor Work, if desired. This digital resource is provided with all science lessons.

### About General Science: Grade 2

A primarily practical course, students explore the idea of biome, first their own and then others. They also 'meet' some less familiar creatures from their own, such as insect larva and mammals, through picture books. Coordinating afternoon activities are provided in Outdoor Work.

### About Natural History: Grade 2

Students learn to observe a variety of creatures through their Nature Reader, including insects, insect larvae, mammals, and some aquatic species. Coordinating afternoon activities are provided in Outdoor Work.

### About Nature Notebook: Grade 2

Students spend time at least once each week recording their observations. Prompts that coordinate with curricular content can be found in Outdoor Work, if desired. This digital resource is provided with all science lessons.

### Science: Grade 2

#### The Big Picture:

To accomplish the goal of supporting a relationship with the Things of the Universe, a Mason science program consists of nature lore, natural history, and general science. Nature immersion, inquiry, community connection, and supportive literature are woven into each of these three parts. Form 1 learners in grades 1-3 are at the beginning of this relationship: developing familiarity and friendship with Creation. Their sense of community is primarily focused on their immediate environment at this stage, but they are curious about others. The familiarity with foundational knowledge grown and nurtured in Form 1 prepares them for greater curiosity and personal interest in Form 2.

Nature lore is timeless knowledge that is passed through a community, much like a grandmother passes on how to make that special bread when the dough just 'feels right.' Like Mason, we strive to pass on this knowledge primarily through outdoor work. Group nature walks, seasonal readings, and topics in scouting are provided as an Outdoor Work resource in the Quick Links. If desired, literature suggestions to support lore can be found in the Community Read Alouds resource (in Literature Grades 1-3).



## Placement & Combining Tips

### Science: Grade 2

For second-grade students or possibly hungry first-graders and third-graders taking their time. If combining grades is desirable, it is recommended that the combined grades begin at the appropriate level and move forward together.

### Nature Walks & Scouting: Grades 1-8

Learners may be combined and share prompts or follow the plan of their local scouting troop or natural history club. Support accessibility and sensory development as appropriate.

### Nature Notebook: Grade 2

Learners may be combined and share prompts or follow their own interest. Support through varied media, scribing observations, or notebooking in tandem.



## Scheduling

GRADE	SCHEDULE INFO.	BOOKS
1-8	Nature Walks & Scouting: Grades 1-8 1 time/week 30 min+	
2	General Science: Grade 2 1 time/week 15 min	A Walk in the... Desert Giant Mama Built a Little Nest Monarch and Milkweed The Secret Life of the Skunk
2	Natural History: Grade 2 1 time/week 10 min	Walks with a Naturalist: Living Nature Reader Volume 2
2	Nature Notebook: Grade 2 1+ time/week 10 min+	

### Sample Weekly View

Day 1	Day 2	Day 3	Day 4	Day 5
<b>Science: Grade 2</b>				
General Science: Grade 2 Nature Notebook: Grade 2		Natural History: Grade 2 Nature Walks & Scouting: Grades 1-8		



## 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.

Science: Grade 2

- Obtain any supplies indicated on the science or grade-level supply lists.
- Download any apps and shortcut any desired links.

Nature Lore:

- Bookmark your Outdoor Work Quick Link, so that you have it available on your weekly outing. Outdoor Work is generally flexible for your location and season and can be moved around in the schedule to incorporate or substitute Natural History Club outings.
- Print or bookmark grade-specific nature notebook suggestions to support natural history and general science. Notebooking can be done on a walk, during occupations, or as a field trip, as appropriate.

### Special Topics & Field Trips

Science: Grade 2

- Learn a few of your local species on these special topics using the internet, field guides, or your local nature preserve, conservancy, or state/national park.
- Note whether there are particular locations nearby for the student to easily notice the special topics on walks or during afternoon occupations.

General Science: Grade 2

- Term 1: insects, especially ants and butterflies, flowers, trip to a natural history museum or butterfly house
- Term 2: birds and trees
- Term 3: animals, tree buds, trip to a pond and a creek, hopefully with wet/soft ground to

observe animal tracks

Natural History: Grade 2

- Term 1: insects, especially larvae, and trees
- Term 2: animal sign, twigs, marine creatures
- Term 3: insects, birds, spring ephemerals

### Term Prep & Teacher Tips

Science: Grade 2

Object lesson prompts are woven into the lessons, as appropriate, but teachers are encouraged to read corresponding Handbook of Nature Study (HoNS) selections each term:

General Science: Grade 2

- Term 1: butterflies (Monarchs) p.305-310 and wildflowers, milkweed p.491-495 or aster p.506-509
- Term 2: trees p.618-626, bird nests p.46, and/or choose 1-2 local birds from p.50-143
- Term 3: skunks p.245-247 and/or choose one additional mammal in p.215-266

Gather household items, typically easy for students to scavenge or teachers to obtain locally:

- any wildflower seeds or butterfly host plants (Term 1)
- pot/planter with soil or place in the ground to plant with a trowel
- optional: rock

Natural History: Grade 2

- Term 1: insects p.294-300, trees p.618-623
- Term 2: tree winter work p.624, choose 1-2 mammals from p.214-293
- Term 3: wildflower intro and 1-2 spring ephemerals from p.460-487, aquatic insects and dragonflies p.400-408

### Reminders

General Science: Grade 2

- Raising caterpillars is planned for General Science in Term 1, so make a note in your calendar to order them at the appropriate time and be flexible with the schedule to accommodate their development and release according to the instruction that comes with them.



## Books & Resources

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

∞ [View Book List Details](#)

### Science: Grade 2

#### General Science: Grade 2



A Walk in the...



Desert Giant



Mama Built a Little Nest



Monarch and Milkweed



The Secret Life of the Skunk

#### Natural History: Grade 2



Walks with a Naturalist: Living Nature Reader Volume 2



## 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](#)

### Nature Walks & Scouting: Grades 1-8



Wild Bird Seed



Bird Feeder



Hand Lens



Small Collection Containers



Small Basin



Dip Net



Student Microscope

### General Science: Grade 2



Butterfly Garden with Voucher to Obtain Larva



Household Items - General Science: Grade 2



Various Seashells



## Quick Links

### Science: Grade 2

- ∞ [Extra Helpings](#)
- ∞ [Foundations \(See Section 13: Science\)](#)
- ∞ [Outdoor Work](#)
- ∞ [Seek app from iNaturalist](#)
- ∞ [SkyView Lite for Android](#)
- ∞ [SkyView Lite for iOS](#)

Click THIS text  
or scan the QR  
code for links.



# Science: Grade 2

## How To Teach



### Introduce

- Begin each lesson with learners' existing knowledge. If the book or activity is new or unfamiliar, then look at the title, a picture, or guidance in the lesson plan to help discuss what students think, drawing on previous experience. If continuing or revisiting a topic or activity, then recap. The lesson plans often help with this.
- Some learners may benefit from using pictures or looking back briefly.
- Allow them time to share any concerns and come alongside, as needed.



### Complete

- Read, or do, as instructed in the lessons, noting any Teacher Tips provided. Learners should always have their nature journal or some other notebook/paper available in case they need to draw or diagram during the lesson.
- When reading to pre-readers, point to the words as you read, even if it seems like they aren't paying attention.
- If learners do not understand a word or concept, do not worry. Try to show them with a picture or connect the idea to something they have seen in real life. They are learning much by the way and will likely build understanding over the term, the year, or beyond.



### Narrate

- Process the ideas of the lesson by retelling the events in sequence, describing a scene or setting, explaining a concept, etc.
- Learners may use words, pictures, Legos, dolls, etc., to process and convey ideas in the manner most natural to them.
- Teachers may take turns to model.



### Discuss

- Consider together any thoughts, confusion, or concerns about the passage.
- Questions/topics for further discussion are often provided in the lesson plans to help. There are no right or wrong answers to these. If teachers want to keep ideas active in the mind, these can also be used at other times to keep the ideas in the working memory.



### Connect

- Follow any extra links, examine any sidebars in the text, look at pictures, etc., depending on learner interest.
- These can also be viewed as alternative ways to engage.



## Term 1

### WEEK 1 15m General Science: Grade 2 - Lesson 1

*Looking for Ants Activity*

Materials: Nature Journal

PREP: Read Teacher Tip

#### → INTRO

Today, you will look for ants!

#### → OBSERVE

Some good places to look are under small rocks, around logs, and in cracks. Use a stick to safely lift rocks. If you find ants, take some time to observe them. Use a magnifier if you have one. How many sections of the body can you see? From which do the legs come? Describe its antennae, jaws, and eyes. If you give it a drop of honey or a few crumbs, what does it do? If you find something else that you want to observe, you may take the time to do so. Spend about 10 minutes looking for ants.

#### → NARRATE & DISCUSS

Use a nature journal to record what the student(s) noticed.

- Did you find ants? If so, describe their habitat. How does it provide food and shelter for them?

#### ★ TEACHER TIP

If students seem anxious or unsure about their nature journal, teachers can encourage them by modeling, showing them many different examples, journaling in tandem, or serving as a scribe.

#### ★ TEACHER TIP

If students find ants, this is a great opportunity for an object lesson. Questions are embedded in the lesson to help, as needed. If preferred, teachers can instead refer to the Handbook of Nature Study or allow questions to flow naturally between student and teacher.

#### ★ TEACHER NOTE

If you haven't ordered your caterpillars yet, don't forget!

### WEEK 1 10m Natural History: Grade 2 - Lesson 1

*Night Visitors*

Materials: Walks with a Naturalist 2

PREP: Read Teacher Tip

#### → INTRO

What do you recall about insects? Briefly share in word or picture. Our naturalist friend, Melissa, is going to introduce us to some of the creatures she sees after dark. Look at the picture on p.1. Have you ever seen such a brightly painted moth? Who else do you think we might meet after dark?

#### → READ, NARRATE, & DISCUSS

p.1-5 "One summer night" - "after dark?"

Read the definitions and notes at the end of each reading, as desired.

- What have you seen or heard when you've been outside after dark? Tell what you have noticed.

#### → SUPPLEMENTAL

∞ Video Link: 7 Spectacular Moths in Slow Motion (5:23)

∞ Video Link: Why moths are obsessed with lamps (2:06)

#### ★ TEACHER TIP

Supplemental links for optional support are provided at the END of the lesson. They can be used at any point to help generate interest during the introduction, to enliven the lesson itself, or to add to discussion later. They are NOT required and should NOT take away from the narration and discussion. Experiment and see what works best for your student(s).

#### ★ TEACHER NOTE

The second video is from an evolutionary perspective. Teachers might choose to allow it to pass by the way, provide additional commentary, or skip this one.

#### • OUTDOOR WORK

Weekly walks and daily outdoor time are vital! Resources in Quick Links.

### WEEK 2 15m General Science: Grade 2 - Lesson 2

*Insects and Plants*

Materials: Monarch and Milkweed

PREP: Read Teacher Tip

#### → INTRO

Look at the picture on the cover. What kinds of butterflies have you noticed before? What did they look like? Where were they?

#### ★ TEACHER TIP

Let students enjoy the artwork in this picture book. If you need to take a break and finish it another time, that is fine.

#### • NATURE NOTEBOOK

Prompt for General Science in Outdoor Work Quick Link.



## Term 1

### → READ, NARRATE, & DISCUSS

Monarch and Milkweed (whole book)

- The meadow where the flowers grow might be a good habitat for a butterfly, but they might also fly to other habitats to find flowers, as well. A 'biome' is all of the living things that live together in a community in neighboring habitats. Can you think of some different habitats in our biome, where we live, where butterflies might be able to find food and shelter?

### WEEK 2 10m Natural History: Grade 2 - Lesson 2

*Caterpillar Hunting*

Materials: Walks with a Naturalist 2

PREP: Read Teacher Tip

#### → INTRO

Tell me about some of the creatures we met last week. All of those creatures were adults, the grown-up animals. Today we're going to look for some baby insects, called caterpillars. Have you ever found a caterpillar? Briefly tell what you noticed.

#### → READ, NARRATE, & DISCUSS

p.7-9 "One afternoon" - "a caterpillar?"

- The caterpillars that Melissa found hatched from eggs and would someday turn into adult moths. Draw each of these stages on separate index cards or pieces of paper. Can you put them in order? Which comes first, middle, or last in the life of the insect? (egg -> caterpillar/larva -> adult/moth) Keep these in your book for next week!

#### → SUPPLEMENTAL

∞ Video Link: Luna Moth (1:39)

∞ Video Link: Ceanothus Silk Moth (0:38), a West Coast moth sometimes confused for a luna

#### ★ TEACHER TIP

If students need support drawing or diagramming, the teacher may do any activities with them in tandem or act as their scribe.

#### • OUTDOOR WORK

Weekly walks and daily outdoor time are vital! Resources in Quick Links.

### WEEK 3 15m General Science: Grade 2 - Lesson 3

*Observing Caterpillars Activity*

Materials: Nature Journal, caterpillars

PREP: Read Teacher Tip

#### → INTRO

Let's take a close look at our caterpillars today.

#### → OBSERVE

Spend about 10 minutes observing your caterpillars in their habitat today and plan to check on them every day to watch them change. What parts are you able to notice? What is the caterpillar doing?

#### → NARRATE & DISCUSS

Use a nature journal to record what the student(s) noticed.

- Do you recall in what stage of the life cycle the caterpillar is?

#### ★ TEACHER TIP

Raising butterflies provides many opportunities for object lessons on several stages of the insect's life over the next 2 weeks or so.



## Term 1

### WEEK 3 10m Natural History: Grade 2 - Lesson 3

*My Pet Spike*

Materials: Walks with a Naturalist 2

PREP: Read Teacher Tip

#### → INTRO

Tell me what you recall from our last reading. The caterpillar begins life as an egg and turns into a moth or butterfly. Today we're going to read about another caterpillar - up close!

#### → READ, NARRATE, & DISCUSS

p.11-16 "One summer" - "life cycle!"

• Last week we ordered egg -> caterpillar -> moth. Did you notice the step we missed in this week's reading? Draw the pupa and add it to your collection. Where does it go? (egg -> caterpillar/larva -> pupa -> adult/moth)

#### → SUPPLEMENTAL

∞ Video Link: Watch this caterpillar turn into a moth! (3:36)

#### ★ TEACHER TIP

Notice that any prompt to recall or think about can be done verbally, in picture, or in any other way that suits the student(s). Apply this flexibility to all lessons.

#### • OUTDOOR WORK

Weekly walks and daily outdoor time are vital! Resources in Quick Links.

SAMPLE