

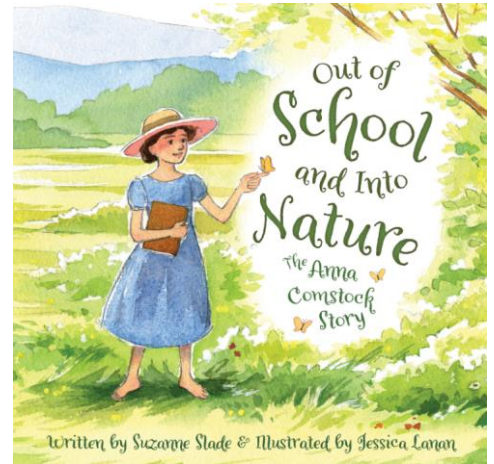


PLANTING FIELDS

Nature Detectives

Learning Kit

Grades K-8



About Learning Kits

Planting Fields Education Learning Kits are resources for teachers and family members to use in conjunction with facilitated visits to Planting Fields Arboretum State Historic Park and as additional resources. Kits include guiding videos, discussion questions, and activities for students. For a deep dive into one idea, use the kit for a one-day lesson prior to a scheduled visit, or spread videos, discussions, and activities out as needed.

Planting Fields is committed to providing free digital resources for schools and home-schooling families. Please consider sharing examples of the student work and discussions by emailing photos and videos to info@plantingfields.org and completing the program evaluation survey when you finish using the kit.

Standard Alignment

All Planting Fields Learning Kits are aligned with New York State Standards in Social Studies/English Language Arts, Next Generation Science Standards, and the Common Core State Standards Initiative. The following standards are achieved through facilitation of this kit:

Next Generation Science Standards: [Next Generation Science Standards \(nextgenscience.org\)](http://nextgenscience.org)

- Patterns: Observed patterns of forms and events
- Cause and effect: Mechanism and explanation
- Energy and matter: Flows, cycles, and conservation
- Earth and Human Activity
- Ecosystems: Interactions, Energy, and Dynamics
- Biological Evolution: Unity and Diversity



NYS Social Studies Standards: [Learning Standards for Social Studies \(nysed.gov\)](https://www.nysed.gov/learning-standards-for-social-studies)

- Standard 1: History of the United States and New York
- Standard 2: World History
- Standard 3: Geography
- Standard 5: Civics, Citizenship, and Government

Common Core State Standards for English Language Arts & Literacy in Social Studies, Science, and Technical Subjects: [English Language Arts Standards | Common Core State Standards Initiative \(corestandards.org\)](https://www.corestandards.org/)

- Key Ideas and Details
- Craft and Structure
- Integration of Knowledge and Ideas
- Range of Reading and Level of Text Complexity
- Text Types and Purposes
- Production and Distribution of Writing
- Research to Build and Present Knowledge
- Range of Writing
- Comprehension and Collaboration: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally
- Presentation of Knowledge and Ideas: Speaking and Listening

Learning Goal

Students will explore their relationship to nature and what it means to be a respectful observer by reading and analyzing text, practicing observation, and discovering ways to find, record, and discuss nature.

BEFORE YOUR VISIT TO PLANTING FIELDS:

Aim: Why should we be respectful observers of nature?

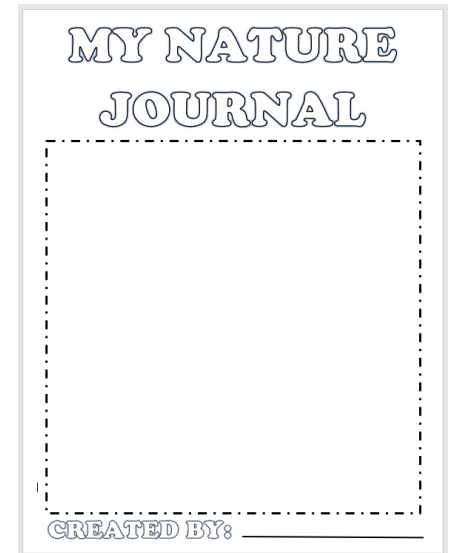
Objectives

- Students will be able to describe ways we can observe nature.
- Explain with drawing and through discussion why we should be respectful of nature

Activity 1: Your Favorite Nature Spot

Creating a Nature Journal cover

- Think about your favorite spot in nature. Where is it? What does it look like? Is it your front stoop or porch, your backyard, or a favorite park? Now think about what you like to do when you are there.
- Now, draw a picture, create a poem, or a few sentences describing it using the space provided. This will become the cover for your very own Nature Journal, which you will be using during your visit to Planting Fields.



[Activity 1: Nature Journal Cover: My Favorite Spot/Activity](#)

Class Discussion:

Call on a few students to share their favorite place to be or activity to do outside. Why is this their favorite activity and which 5 senses are they using when being outside in this place or doing this activity? What do they need to do to be respectful (or “nice”) to the physical environment and the living things there?

Activity 2: “Hurt No Living Thing”

Video 1: Nature Detectives



Students will be introduced to Planting Fields and will listen the poem, “Hurt No Living Thing” by Christina Georgina Rossetti. Students will relate to the message of “Hurt No Living Thing” in their own personal way and will then share their feelings in an activity that follows.

[Planting Fields Learning Kit- Nature Detectives- Video 1 \(vimeo.com\)](#)

Poem Analysis and Role Play (grades K-3)

"Hurt No Living Thing"

By Christina Georgina Rossetti (English poet, 1830 - 1894)

Hurt no living thing:
Ladybird, nor butterfly,
Nor moth with dusty wing,
Nor cricket chirping cheerily,
Nor grasshopper so light of leap,
Nor dancing gnat, nor beetle fat,
Nor harmless worms that creep.

Activity 2: Hurt No Living Thing Poem / Role-Play

Students will be given a copy of the poem "Hurt No Living Thing" by Christina Georgina Rossetti and assigned a different animal mentioned in the poem. Each student will also be given a card with the animal (picture and name) and an activity they will perform after the teacher reads the line of poetry.

Discussion Questions:

- What senses did you use while acting like the animal?
- What senses did you use while observing your classmates pretending to be those animals?
- How can you be nice or respectful to plants and animals in nature?
- Why should you be respectful of nature?

Poem Analysis and Discussion (grades 4-8)

Students will be given a copy of the poem "Hurt No Living Thing" by Christina Georgina Rossetti and/or the poem "She Asked Me To Kill The Spider," by Rudy Francisco. Students will read and analyze the poem independently or together as a class.

"She Asked Me To Kill The Spider," by Rudy Francisco

She asked me to kill the spider.
Instead, I get the most
peaceful weapons I can find.
I take a cup & a napkin,
I catch the spider, put it outside
and allow it to walk away.
If I am ever caught in the wrong place
at the wrong time, just being alive
and not bothering anyone
I hope I am greeted
with the same kind
of mercy.

Discussion Questions:

- Are there any vocabulary terms that you do not know?
- Why do you think the authors want people to be nice to insects and other animals in nature?
- How can you be nice or respectful to plants and animals in nature?
- Why should you be respectful of nature?
- Pick two insects from the poem(s). Can you think of at least one way those insects benefit the greater ecosystem and people?

Activity 3: Finding Nature “Out of School”

Discussion: What is Nature?

What does the word “Nature” mean? What is included as “Nature”? Where can you find nature at home? Is it through a window? Perhaps they have a pet or a house plant at home? Next steps: Next you are going to find nature at home! Remember, nature is anything on earth that was not made by humans. You can find nature in your kitchen, in your living room, or even in your bathroom. Can you find an example of nature in this classroom?

Video 2: Meet the Coes

Students are introduced to the Coe's, a nature loving family, who lived at Planting Fields in the Spring and Fall. They built their home with optimal access to nature through large windows, bridle paths and out-buildings that would allow them to observe and enjoy nature. We get a glimpse into the house and garden, highlighting observation spots. They also learn exactly how big 409 acres is! Hint: it's 6,544 tennis courts!



[Planting Fields Nature Kit- Meet the Coes- Video 2 \(vimeo.com\)](https://vimeo.com/PlantingFieldsFoundation/Planting-Fields-Nature-Kit-Meet-the-Coes-Video-2)

Discussion Questions:

- Based on the video, what kinds of nature-related activities did the Coes like to do?
- Do you like to do any of these same activities? What other kinds of activities do you like to do?
- How does their home (Coe Hall) show their love of nature?
- Would you like to live in a home like Coe Hall? Why or why not?

Video 3: Out of School and Into Nature



Students meet Anna Comstock, alive during the building of Coe Hall and a renowned naturalist that believed children should “experience” nature, not just read about it. Out of School and Into Nature by Suzanne Slade will be read aloud illuminating the work and life of this trailblazing naturalist and education advocate.

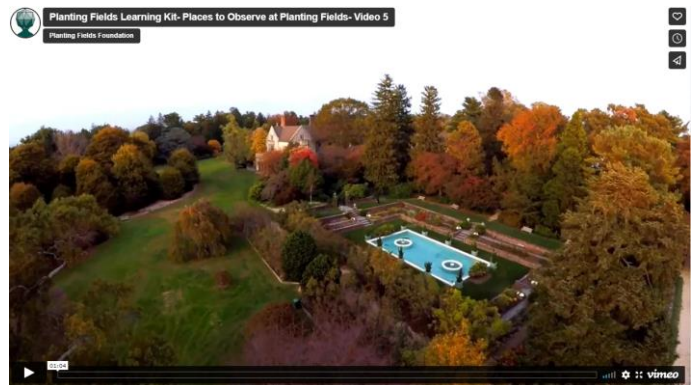
[Planting Fields Learning Kit- Out of School and Into Nature- Video 3 \(vimeo.com\)](https://vimeo.com/PlantingFieldsFoundation/Planting-Fields-Learning-Kit-Out-of-School-and-Into-Nature-Video-3)

Discussion Questions:

- What does it mean to observe? Observe means to take time to look carefully, closely, and slowly all around. This can be zooming in on one specific object or a whole area.
- What tools help us observe nature?
- We can use our senses to experience nature. What are our five senses? Which senses are safe to use while observing nature?
- Anna believed children should EXPERIENCE nature. We can all experience nature by going on walks, bike rides and traveling to new places, or even by searching for natural things in our own homes, from our windows, or from our backyards.

Video 4: Observing Nature at Planting Fields

Students get a tour around Planting Fields, looking for all of nature’s surprises. From blooming plants and chirping birds to a small spider hiding among the leaves, the students will have the opportunity to see a wide variety of objects and places in the natural world. This will inspire them to find their own versions of nature wherever they are and observe it respectfully.



[Planting Fields Learning Kit- Places to Observe at Planting Fields- Video 5 \(vimeo.com\)](https://vimeo.com/PlantingFieldsFoundation/Planting-Fields-Learning-Kit-Places-to-Observe-at-Planting-Fields-Video-5)

Discussion Questions:

- What are three animals that you observed in this video of Planting Fields?
- How might our ability to observe nature change with the seasons?
- Where would you like to observe nature?

Activity 4: Finding Nature at Home

Creating Your Own Nature Journal:

You will be provided with your very own nature journal during your upcoming trip to Planting Fields. But once you fill that up, you can create your own using these resources:

- **How to make a nature journal so you can record wildlife like a scientist | Natural History Museum**



[\(28\) How to make a nature journal so you can record wildlife like a scientist | Natural History Museum - YouTube](#)



- **How to Make and Keep a Nature Journal or Notebook**

[How to Make and Keep a Nature Journal or Notebook - Rhythms of Play](#)

- **How to Make a Nature Journal (WikiHow)**

[How to Make a Nature Journal: 11 Steps \(with Pictures\) - wikiHow](#)

Resources to Help Identify Plants and Animals:

- **Audubon for Kids!** – great site with bird identification tools and bird-related activities
[Audubon for Kids | Nature Activities, DIY, Lessons for Home | Audubon](#)
- **Merlin Bird ID** – The Cornell Lab of Ornithology's free app for bird identification
[The Best Bird Identification Apps for iOS and Android | Digital Trends](#)
- **LeafSnap – Plant Identification** – free app that can detect up to 90% of flowers, shrubs, trees, and other plants
[11 Best Free Plant Identification Apps \(For Android & iOS\) \(gardeningbank.com\)](#)
- **Insect ID: Bug Verifier** – Free app for “bug” identification (i.e., insects and arachnids)
[The Top 5 Apps on iPhone for Identifying Bugs and Insects \(makeuseof.com\)](#)
- **New York State Butterfly Reference Guide** - [New York State Butterfly Reference Guide](#)

Using these resources above, find, identify, and record 5 examples of nature at home. Share your observations with the class and explain why you found this interesting.

AFTER YOUR VISIT TO PLANTING FIELDS:

Extension Activities

- 1) **Research:** As a follow-up session, the teacher (with the help of the school librarian) should give the students time to do research on one or two of the living things they observed outside. Students in older grades can use their observations as a jumping off point to create an experiment.

- 2) **Learn about other naturalists:**
 - **Learn about naturalist Maria Sibylla Merian** and compare and contrast her with Anna Comstock using a Venn Diagram. Information about Maria Sibylla Merian and an additional activity can be found on: [Art-Observation-Maria-Sibylla-Merian.pdf \(plantingfields.org\)](https://www.plantingfields.org/art-observation-maria-sibylla-merian.pdf).
 - The teacher (with the help of the school librarian) can give the students time to do research on another scientist or naturalist. **Create a book or comic strip** illustrating their life. The **supplement reading list on the next page** has other books about naturalists, geared to different reading levels.

- 3) **English Language Arts activity:** Out of School and Into Nature uses a lot of metaphors and similes. Using the words that the students used to describe how observing nature made them feel (during the school visit), have them create a metaphor or simile using these words. They can create an individual illustration (picture with metaphor/simile) or the class can create a poster with their metaphors/similes surrounding the books' quote "Nature study cultivates in the child a love of the beautiful."

- 4) **Complete the rest of the Nature Journal Activities**



Share student work:

We want to see the work your students created. Please consider sharing student work with us by emailing photos to info@plantingfields.org. We may want to use the work as examples or display it as part of an online or on-site exhibition and will follow up with you to obtain permission.

Share your thoughts:

Your feedback is crucial to us creating more kits like these that suit your needs in the future. Please take 5 minutes to complete [this survey](#). It will help us understand what you need, and how we can better serve you moving forward.

Supplemental Reading on Naturalists/Observation:

| Grades K-2 | Grades 3-5 | Grades 6-8 |
|--|---|--|
| <ul style="list-style-type: none"> • <u>Little Naturalists</u> book series by Kate Coombs  • <u>My Five Senses</u> by Aliki  • <u>Expedition Backyard: Exploring Nature from Country to City</u> by Rosemary Mosco  • <u>Backpack Explorer: On the Nature Trail</u> by Oana Befort (also for grades 3-5)  • <u>Let's go on a hike!</u> by Katrina Liu  | <ul style="list-style-type: none"> • <u>Pipsie, Nature Detective</u> by Rick DeDonato (also for gr. K-2)  • <u>Exploring Nature Activity Book for Kids: 50 Creative Projects to Spark Curiosity in the Outdoors</u> by Kim Andrews (also for gr. 6-8)  • <u>Buzzing with Questions: The Inquisitive Mind of Charles Henry Turner</u> by Janice Harrington  • <u>The Bug Girl: Maria Merian's Scientific Vision</u> by Sarah Glenn Marsh  | <ul style="list-style-type: none"> • <u>Finding Wonders: Three Girls Who Changed Science</u> by Jeannine Atkins  • <u>Charles Darwin and the Theory of Evolution</u> by Jordi Bayarri  • <u>The Incredible yet True Adventures of Alexander von Humboldt</u> by Volker Mehner  • <u>Nature Anatomy: The Curious Parts and Pieces of the Natural World</u> by Julia Rothman (also for gr. 3-5)  |

