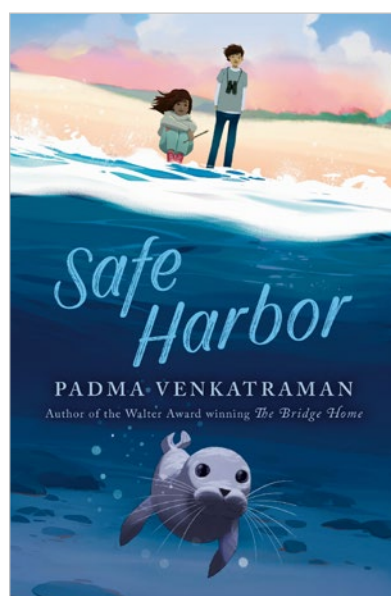
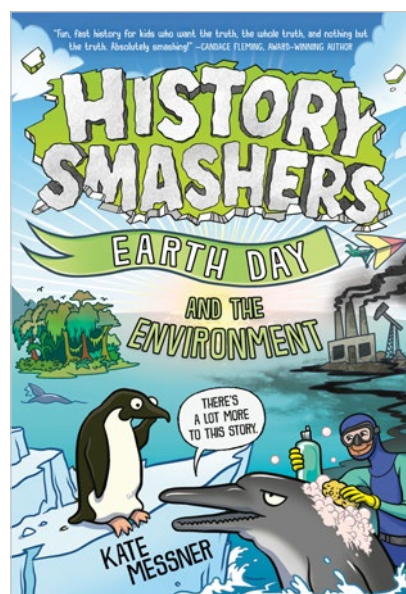
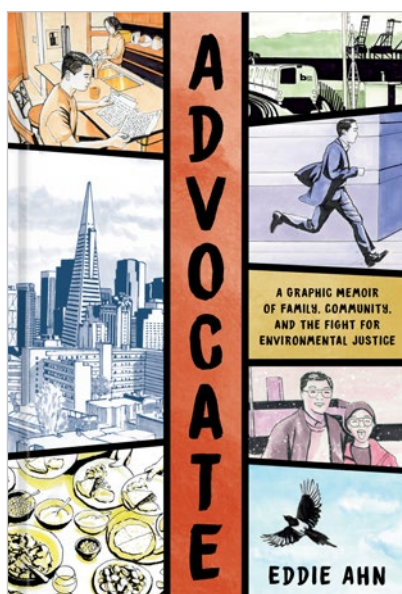




THEMATIC GUIDE

Teaching Nature
MIDDLE SCHOOL



The activities in this guide encourage middle school students to spend time outside and help prepare them to become the conservationists of the future.

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■ INTRODUCTION

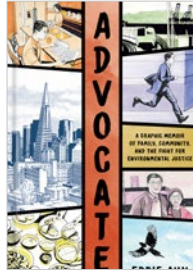
Too often, time outside is relegated to science class, but what if we could get students outside in English class? What if students could study, read about, and write about the local environment? What if English teachers began bringing their classes outside? If English classes studied nature writing, participated in citizen science projects, and had field studies, students would be given the opportunity to forge a connection with their local environment even if they do not consider themselves to be “science” students.

Author and environmental activist Richard Louv is credited with originating the term nature-deficit disorder in 2008 to describe the loss that children experience when they are not given the opportunity to have direct contact with nature. Nature writing is a great way to get students outside; being outside has important benefits for students of all ages beyond content, too. According to the Children & Nature Network, spending time outdoors can improve children’s sleep, increased time outside has public health benefits, and childhood nature exposure can help predict adult mental well-being. In a time where students’ lives are too often dominated by screens, encouraging them to spend time outside can improve their lives while preparing them to be the conservationists of the future.

■ HOW TO USE THIS GUIDE

The titles in this collection include fiction and nonfiction texts. The collection’s varied genres provide a broad appeal for today’s middle school students; the wide variety of texts also allows for teachers in multiple subject areas to integrate whole texts or excerpts into their lesson plans. Conservation isn’t just a science issue: all classes should address the value of nature and our environment. The selected texts can be used as whole-class reads, book club choices, and/or independent reading. Excerpts can also be used for whole-class lessons and as mentor texts. Teachers can choose to select individual or multiple texts depending on reading level, thematic consideration, and instructional goals. Essential questions are provided to frame the study of these complex texts, and the included questions can serve as conversation starters or writing prompts. The activities outlined apply to all texts and can be adapted to whole-class or small-group settings such as seminars, literature circles, debates, and whole-class discussions.

ABOUT THE TITLES IN THIS COLLECTION



Advocate

A Graphic Memoir of Family, Community, and the Fight for Environmental Justice

EDDIE AHN

9781984862495

Ten Speed Graphic | Hardcover | \$24.99 | 208 pages

Also available: E-BOOK

Eddie Ahn, born in Texas to Korean immigrants, is an environmental justice attorney. *Advocate* is a graphic novel memoir that follows his pursuit of the American dream, even if his definition is different from that of his parents.

- Eddie Ahn works at a nonprofit, a sector of the economy that isn't known for being lucrative. His parents want him to pursue the American dream of success, which usually means making enough money to live comfortably. Why does Eddie pursue nonprofit work? What inspires him?
- In the prologue, we learn that Eddie's grandparents were deeply affected by the Korean War. Eddie talks about his grandfather a lot in the memoir, often wondering how his grandfather might react to different events in his life. Do you think Eddie and his grandfather are similar? Explain.
- In chapter 6, Brightline must respond to environmental justice issues brought on by the COVID-19 pandemic and the wildfires in California that summer. Air quality becomes a focal point at this time.



The Secret Language of Birds

LYNNE KELLY

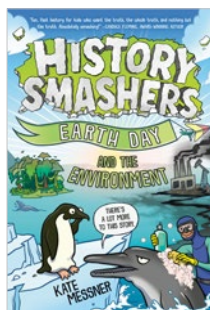
9781524770303

Yearling | Paperback | \$8.99 | 256 pages | Lexile: 720L

Also available: E-Book, Audio Download

In *The Secret Language of Birds* by Lynne Kelly, Nina discovers an endangered pair of whooping cranes nesting at her summer camp. This should be impossible, as whooping cranes haven't been seen in Texas in over a century. A combination of citizen science, a great group of friends, and pluckiness help Nina investigate where the birds came from and why they are at camp.

- Nina and her friends at camp refer to themselves as the "Oddballs." Why do they choose this name? How does this name empower them?
- Nina knows a lot about birds. Like, a lot. When she shares facts about birds some of the older girls at camp start calling her "Wikipedia." Do you have any special interests that you like to talk about? Have you ever had someone comment about your interest in something?
- What do you think the title of the book means?
- Why does Nina keep her discovery secret from Aunt Audrey? How does Aunt Audrey react when she finds out? Do you think Nina made the right decision? Why or why not?



History Smashers

Earth Day and the Environment

KATE MESSNER

9780593705308

Random House Books for Young Readers | Paperback | \$9.99 | 240 pages | Lexile: 1100L

Also available: E-BOOK, AUDIO DOWNLOAD

In *History Smashers: Earth Day and the Environment*, students learn about Earth—its past, present, and future. A deep dive into environmental activism, this incredibly comprehensive book is packed with facts about the people who have been working to protect the environment for centuries.

- Why do you think the author wrote this book?
- Was it easy or hard for a woman to become a scientist during this time?
- Why did Florence Merriam Bailey want to observe birds in the wild rather than see them used for hats?

■ ABOUT THE TITLES IN THIS COLLECTION



What It's Like to Be a Bird (Adapted for Young Readers)

From Flying to Nesting, Eating to Singing—What Birds Are Doing and Why

DAVID ALLEN SIBLEY

9780593620670

Delacorte Press | Hardcover | \$19.99 | 208 pages | Lexile: 1G1110L | Also available: E-Book

What It's Like to Be a Bird is adapted for young readers from the best-selling book written and illustrated by David Sibley. Filled to the brim with gorgeous illustrations, this is a cross between a traditional field guide and a book about birds. Sibley attempts to answer the most common questions we might have about birds, “from flying to nesting,

eating to singing” as the subtitle says. Whether you live in an urban, suburban, or rural area, you will find yourself fascinated by the birds you see every day.

- What birds have you observed in your yard, at school, or at a local park? If you don't know the names, what do they look like?
- If you could have any bird adaptation, what would it be? Why? How would you use your new adaptation?
- Birds often inspire a sense of wonder and awe in humans. What is your favorite bird? What do you wonder about it?
- In the preface, David Sibley writes, “A bird's experience is far richer, complex, and ‘thoughtful’ than I'd imagined.” What are some examples of this from the text?



Safe Harbor

PADMA VENKATRAMAN

9780593112502

Nancy Paulsen Books | Hardcover | \$17.99 | 176 pages | Lexile: 840L
Also available: E-BOOK, AUDIO DOWNLOAD

Geetha and her mother have just moved to Rhode Island from India. In *Safe Harbor* by Padma Venkatraman, readers follow Geetha as she tries to find her place in her new home. When she is bullied for the way she speaks and dresses, Geetha retreats into herself. But when she meets Miguel, things get better. When she and Miguel discover an injured seal on the beach, she feels connected to the seal and its ecosystem. She's angry at the world, but she realizes she can focus that anger on changing her world for the better.

- Geetha's life changes when she and Miguel help rescue an injured seal. They are able to visit the seal a few times during its recovery, and Geetha becomes very attached to him. Does her relationship with the injured seal change her perspective? Explain your thinking.
- Music is important to Geetha. It connects her to her home and helps her feel better. When she plays music for the injured seal, it also seems to help him. Do you have a hobby or passion that helps you feel better?
- The title of the book has multiple meanings in the story. Geetha finds a safe harbor, a place she feels welcome and whole, in places like the library, her music, and her friendship with Miguel. She also finds peace at the beach. Is there a place outside where you find safe harbor?

■ BUILDING KNOWLEDGE

The books in this collection provide a gateway to nature for readers. English teachers have a unique opportunity to help middle school students cultivate a sense of responsibility for nature and the world around them, to build a capacity for wonder and joy. Books and stories are ideal means of helping adolescents learn about the environment; the motifs, themes, and plots encourage critical thinking about social and environmental issues.

The following activities provide opportunities to build knowledge and capacity around the texts:

CITIZEN SCIENCE

Citizen science refers to efforts in which volunteers partner with professional scientists to collect or analyze data. For this activity, challenge your students to participate in citizen science by observing birds in your area. This can be done outside or by looking out a window.

1. First, get bird identification down to a science. Have students watch this video: The Cornell Lab of Ornithology's "Bird Song Hero"
prhlink.com/cornellbirdsyt
2. Then, challenge students in groups or pairs to play the Bird Song Game!
prhlink.com/birdsonghero
3. Students can download the free Merlin Bird ID app for instant help with bird identification, plus photos, and facts. With just the size and color of a bird, you can learn to identify your feathered neighbors! If you want, you can sign up for eBird and contribute your sightings for use in science and conservation.
4. Spend some time watching birds! You might spend five minutes watching birds at three different times or sit down for fifteen minutes at once to do your observations,
5. Keep a notebook with you and jot down what you see and hear while you bird-watch. You will use these notes to draft a short narrative piece about what you observed.
6. No birds by you? Use a webcam! Check out the Cornell feeders (allaboutbirds.org/cams/cornell-lab-feederwatch), Duke Farms (NJ) Eagle cam (www.dukefarms.org/eagle-cam), or the Barnegat Light (NJ) osprey cam (conservewildlifenj.org/wildlife-cams/ospreycam).

Resources

- Birdfreak Guide for Teen Birders (prhlink.com/birdfreakguide)
- Live bird cameras at Cornell (prhlink.com/redtailedhawks)
- Birding hotspots in NJ (prhlink.com/njbirding)

■ BUILDING KNOWLEDGE

BECOME AN ADVOCATE

The texts in this unit center around our relationship with our environment. Many of the people and characters in the books advocate for change and for more people to appreciate nature. This is true in the real world, too.

Show students the thirty-minute documentary *The Sacrifice Zone* (thesacrificezone.org/about). After watching, ask students to respond to the following: If we wouldn't want the garbage burning in our own backyard, why are we comfortable putting it in someone else's? What does this tell us about our ability to detach from other people and communities? How do we regain our sense of humanity and responsibility?

Brainstorm a list of local issues that affect either the health of people or the environment. In many cases, these are intertwined. Have students create a news report about an environmental issue they care about.

Challenge students to create a three- to five-minute video news report on one of the issues. Students should work in small groups. See below for a list of possible requirements:

- Include at least three graphics (pictures, charts, diagrams, etc.)
- Address all the key details (who, what, where, why, how)
- Feature up-to-date information, and include at least one quote from a person involved in the issue (preferably a new quote you obtained)
- Focus on what is happening locally, and if possible, have someone reporting from or near the actual scene to make it more authentic and engaging

SIT SPOTS

If possible, find a place on campus where students can spread out and observe the natural world. Students will choose a tree or plant that they can observe throughout the unit or school year. Students should spend between ten to twenty minutes in their spot each time they visit it.

Once students choose their "sit spot," review the following rules with them:

- Don't talk or interact with others around you.
- Stay within the boundaries of your spot. You can get up and walk around, but you can't cross into another student's space.
- Do not disturb what you find. No harming the plants/trees.

Each time students visit their spot they should focus on a different activity. Below are some examples:

- Patterns surround us in nature. While observing today, look for patterns in nature. On a sheet of paper, make a list of the patterns that you see.

■ BUILDING KNOWLEDGE

- Sit quietly and close your eyes. Listen to the world around you. When you hear a sound, draw or write something to represent the sound on your paper. What you draw or write is up to you.
- Compose a paragraph describing your sit spot. Use figurative and descriptive language.
- Imagine you are an organism living in your sit spot. Write a short imagined narrative from that organism's perspective.

When the unit is completed or the year is almost over, have students create a forest of sit spots. Digitally or by hand, have them create a class exhibit to share their observations and writing with the school community.

■ THEMES

The following themes appear throughout the titles in this set. Essential questions are designed to be broad in the interest of capturing readers' attention, inviting multiple perspectives, and applying to big ideas across subject areas and units of learning. Conversation starters promote connection and relevance before and after students read.

ENVIRONMENTAL JUSTICE & ACTIVISM

Essential Question:

How do the stories we tell about the environment reflect who has power and who doesn't?

Conversation Starters:

- How did industrialization influence environmental racism and classism in the past? Today?
- Look around where you live—who suffers from pollution? Bad air quality? Lack of access to natural spaces? Who has access to parks and natural areas? Why?
- How can you empower yourself to make change?

STEM & NATURE

Essential Question:

Does learning about nature through screens and technology help us care about it more, or do we need to be outside to really understand it?

Conversation Starters:

- Do you spend a lot of time outside? Do you think that impacts how much you value the environment?
- What is your definition of "nature"? Can nature be found in urban areas? Suburban areas? Is that different from the wilderness?
- How does your relationship with technology affect your relationship with the environment? Is it positive or negative? Why?

■ THEMES

SENSE OF PLACE

Essential Question:

How do the places we inhabit shape who we are? How do we shape those places?

Conversation Starters:

- How does nature and our environment affect our state of mind?
- How has your town or city shaped who you are?
- What does it mean to really give yourself to nature?
- How do people connect with nature?

CULTURE & CONNECTION

Essential Question:

How do different cultures understand our relationship with nature?

Conversation Starters:

- What can we learn from people who have lived in a place for thousands of years?
- What do different cultures think about protecting nature for future generations?
- Can learning about how different cultures care for nature help us think about better ways to protect the environment?

THE VALUE OF NATURE

Essential Question:

Has our idea of nature changed over time?

Conversation Starters:

- What does nature mean to you? Does the definition differ depending on where you live?
- Why should we protect the natural world?
- Does nature need to have a monetary value in order for humanity to value it?

■ WRITING ACTIVITIES

CULMINATING WRITING ASSESSMENT

A writing assessment can provide students with a map for reading and analyzing texts. If introduced at the beginning of the unit, students use their notes and annotations to help them respond to the prompt. Writing prompts should encourage students to think critically and expand on relationships between texts. For example, students might respond to one of the following prompts:

- (Older/advanced writers): *Choose a place in nature that matters to you—it could be a local park, your backyard, a beach you've visited, or even a place you've only*

■ WRITING ACTIVITIES

seen in pictures or videos. Write a story, essay, or article that explores this place through the lens of at least two of the themes we've studied in this unit.

- (Younger/progressing writers): *Choose a place in nature that is important to you—like a park, your backyard, a beach, or even a place you've seen in pictures. Write about this place by answering at least two of these questions:*
 - *Who gets to enjoy this place and who takes care of it?*
 - *How does this place make you feel and how has it changed you?*
 - *What would happen if this place got damaged, and who would be affected most?*
 - *What's the best way to really learn about this place—by visiting it or through books and videos?*

SENSE OF PLACE

“For humans to have a responsible relationship to the world, they must imagine their place in it. To have a place, to live and belong in a place, to live from a place without destroying it, we must imagine it.”—Wendell Berry, “It All Turns on Affection,” The 2012 Jefferson Lecture.

Encourage students to think about places that are special. This could be as big as a city and as small as the patch of grass they see on their way to school. Ask students to talk about a place that is special to them. This place should be one that has meaning and has shaped their development. It can be a public or private place but it must speak to the student. Using descriptive details, have students write one to two paragraphs explaining why they find this place to be special and inspiring.

After students write a paragraph, have them create one to two slides to share with their classmates. Students should include at least one photo of their place on the slides. They should also include their favorite sentences and descriptors from their writing.

Have students present their slides to the class. Once all students have presented, have students complete an exit ticket: “What is a sense of place? Why do some people feel more connected to their surroundings than others?”

PAINT CHIP SCAVENGER HUNT AND POETRY

To prepare for this activity, gather paint chip cards from a local store. Create a ring of colors by hole-punching six to eight different cards and clipping them together on a ring.

Divide students into pairs and give each pair a ring of paint chips. Take the

■ WRITING ACTIVITIES

groups outside and explain they will be completing a scavenger hunt of sorts. They should work together to find natural items that match the shades on their paint chips. When possible, have them take a photo of the item in nature.

Give students twenty minutes to look for matches. When they are done, have students share at least one paint chip/nature match they found.

Once students are back inside, challenge students (individually or in pairs) to create a poem about nature using all of the paint colors. They can reference the items they found outside or use them for inspiration.

After they write their poem, have students select their favorite line that they wrote and share it with the class.

NATURE'S CONVERSATION: WRITING DUAL PERSPECTIVE POEMS

Hand out a copy of “scratch” by Jody Gladding (orionmagazine.org/article/scratch). First, have students read the poem individually. Next, ask two volunteers to read it aloud.

On the third reading, ask students to read silently again, but this time they should annotate the poem. What do they notice? How does the poet use fonts and bolding to tell the story of her poem? If students are not familiar with the junco, a sparrow common in most of North America, have them look up photos of the bird. Why might Gladding have focused on this specific bird in her poem?

Following the class discussion, have students work in pairs to create their own poems using Gladding’s poem as a mentor text. Each pair should choose a season and develop two distinct voices: one representing a familiar plant or animal, and another representing a human perspective. Gladding focuses on the actions of the speaker and the junco in spring. What else can students write about? Challenge students to keep their poems short, like Gladding’s, and focused on small actions taken by the two voices in the poem. Students can also illustrate their poem.

If students need an idea, consider having them write about horseshoe crabs for the Horseshoe Crab and the Arts Young Voices contest (horseshoecrab.org/act/contest.html).

■ OTHER TITLES OF INTEREST

Into the Rapids by Ann Braden

Turtles of the Midnight Moon by María José Fitzgerald

Nature Girl by Jane Kelley

The Burning Season by Caroline Starr Rose

First Light by Rebecca Stead

An Immense World (Young Readers Edition): How Animals Sense Earth’s Amazing Secrets by Ed Yong

■ FILMS & DOCUMENTARIES OF INTEREST

Child of Nature (Apple+)

Ferngully: The Last Rainforest (Disney+)

Mann v. Ford (HBO Max)

Pom Poko (Amazon Prime)

Youth v Gov (Netflix)

■ ABOUT THE AUTHOR OF THIS GUIDE

Sarah Mulhern Gross is a high school English teacher and National Board Certified Teacher in Lincroft, New Jersey. She has an MAT degree in teaching biology from Project Dragonfly and Miami University. She is a contributor to *The New York Times* Learning Network and her writing has appeared in *Scientific American*, *ASCD*, *The New Jersey English Journal*, and *The Washington Post's* Answer Sheet. Sarah has presented for NCTE, NJCTE, NJCEL, NJEA, *The New York Times* Learning Network, Fordham University's Summer Literacy Institute, the Center for Teaching Excellence, and the New Jersey Science Teachers Association. She is the co-founder of #nerdcampNJ, NJCTE past vice-president, and past faculty board member for curiousSciencewriters, which provides a platform for publishing student science writing.

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