

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2022 Volume I: Writing about Nature

Reading and Writing about Nature - Surviving and Thriving

Curriculum Unit 22.01.05 by Eden C. Stein

Preface - Land Acknowledgement

This unit was written as part of the Yale New Haven Teachers Institute, which is open to New Haven Public School teachers. Yale University is in Southeastern Connecticut, where the Mill and Quinnipiac Rivers run into the Long Island Sound. It is the ancestral home and sacred land of the Quinnipiac People who lived on this land for centuries.

Rationale

With the growth of the environmental movement over the past fifty years, the value of spending time in nature and the importance of educating children in the value of the natural world has become increasingly acknowledged. According to Laws and Lygren, "Children need nature. Contact with the natural world improves health and reduces stress. Nature is also a rich and meaningful place to learn." They also describe how spending time in nature improves mindfulness and builds community. According to Ming Kuo, Ph.D., leader of the Landscape and Human Health Laboratory at the University of Illinois, in addition to improving students' attention, spending time in nature also helps children develop self-discipline and makes students more engaged and interested. Experience has taught parents and teachers for eons that children are happier, and better adjusted when they spend regular time out of doors. However, in this age of video games, smart phones, and especially in an urban environment many children spend little, if any time in nature.

Despite the known benefit of spending time outside, according to some authors, children today have a "nature deficit disorder." So many young people spend most of their recreational time inside, glued to electronic devices. In urban districts, spending time outside is frequently foreign, unfamiliar and may even be dangerous in some areas. Recently, the need to spend time in nature and green spaces has increased and been acknowledged even more with the COVID epidemic beginning in 2019. When people were housebound, and unable to socialize with others, mental health experts encouraged people to walk and spend time outside to improve overall mental health. When children and teens were going to school virtually and spending most of

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their schooldays, in addition to leisure time, on screens, they too were encouraged to go outside and observe and explore their surroundings when possible. Furthermore, meeting the social-emotional needs of children became paramount in many school districts. However, while children raised in the city may have small yards or nearby parks available to them, frequently they are unaware of and unfamiliar with their natural environment. This unit offers teachers a systematic and engaging way to help urban students spend some time outdoors as well as begin to think about nature as an essential part of their life as well as appreciating the value of spending time outdoors as a personal coping mechanism. Another goal is for students to develop a mutual relationship with nature and even consider the natural environment part of their universe of obligation.

An important additional reason for children to learn more about nature and connect to the natural environment in order for them to do something about the very real threat of global climate change and pollution to our planet and world. It is hoped that during this Anthropocene age children will grow up to have a purposeful relationship with nature and develop the motivation to care for our precious planet. We understand that in order for people to have the will to make real behavioral and legal changes pertaining to our environment we must learn to care for it, and in order to care about nature we must feel connected to, and comfortable and familiar with our natural surroundings. It follows that spending time in nature, learning about it and writing about it will facilitate these feelings and produce citizens who are motivated to do whatever it takes to save our planet.

Objectives

This unit aims to familiarize middle school students growing up in an urban setting with the nature that surrounds them. Though spending time in nature may be unfamiliar to students, surviving in nature is a high-interest topic. The topic of survival in nature will be connected to the idea that for humans to thrive as individuals and as a species we need to have environmental knowledge and experiences, thus developing a relationship with our natural surroundings. This is done in the context of English Language Arts class, so it naturally includes the exploration of nature in literature of both poetry and prose, as well as nonfiction texts. In addition, ample time will be devoted to writing. This can begin with students writing and drawing observations in nature journals, and progress to poetry writing, expository writing, book responses to nature themed books, and flash fiction with an emphasis on natural settings. We know that writing is an important mechanism for enhancing observational skills, which is a key component of any study of the natural world. Students will have an opportunity to reflect on their feelings throughout the unit in a learning log format which will enhance student engagement and further the goal of students developing a relationship with nature.

A unique feature of this unit will be that it is not taught in a traditional four to six consecutive week period. The objective is rather to integrate it throughout the school year, thus allowing students to observe, experience and discuss the natural world during all the seasons of the year. As the class observes the natural environment of our school grounds and neighborhood, one mini theme will be the study of local trees as they are prolific and easy to identify. Regarding literature, an additional unifying theme will be survival stories, as they are so engaging for young people, including reluctant readers, while at the same time allowing them to safely explore drastically different natural surroundings. In addition to unifying themes of local trees and survival, attempts are made to incorporate indigenous legends and attitudes toward nature, with the goal of children emulating the Native American interdependence with nature, including a mutually beneficial

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relationship and respectful attitude toward nature. At the end of the year, students will have a portfolio of their work which will include a final reflection and culminating project. Specific ideas for culminating projects are included below.

Introducing the Unit

It is important to spend some time with the class establishing the objectives of the unit and the rationale of why nature is worthwhile for the students to explore and appreciate. The concepts of learning about nature for survival and needing to spend time in and preserve nature in order to thrive will be discussed. The introduction will include a sampling of the various learning strategies used throughout the unit such as spending time outside, reading and viewing text, and writing. To this end, nonfiction texts along with poetry, short fiction and videos will be utilized. In the poem "Wildness is Everywhere" teacher and writer Stephanie Jimenez discusses growing up in Queens and not always appreciating the bits of nature she found there. The poetry of Mary Oliver can be so accessible for young teens, such as "This World" where she shares the simple beauty found at places like the beach. However, we also want to raise students' awareness regarding the danger to our earthly environment and ecosystems during the present time. In the short story "Autumntime" Anthony Lantini tells the story of a boy who lives in a future where he must go to a special museum to see a living tree. A short video like "Climate Change from a Kid's Perspective" or "Introduction to Climate Change" could be used as a way to help students understand the magnitude and perils of global climate change. However, for young people the message should be one of hope and students can explore what young people can do to help care for the environment. The Osage legend "The Buffalo Bull and the Cedar Tree" demonstrates how the wise use of plants and animals is what enables humans to live well. The story is also an entry point into how many medicines have their origins in natural plants, and that "our relationship with plants can be used to explore the Native concept of balance."4 Throughout the unit we will return to the theme of needing to spend time in, understand, care for and protect our environment.

Spending Time in Nature

Our school is very fortunate to have a variety of trees, shrubs and flowers on the grounds along with two small outdoor classrooms with seating. In addition, there are two lovely parks within walking distance which we may visit. Others who want to teach this unit may investigate their own surroundings and tailor the natural phenomena focused on accordingly. As a rule, children look forward to spending time outdoors though they may at first moan and groan a bit about weather conditions and walking; typically, this passes quickly to a relaxed open-minded attitude once they realize they are free from the confines of the classroom and most of its associated rules and expectations. Having the students keep a nature journal will be an integral part of outdoor sessions. With one place to write down their observations, draw and brainstorm they will also be encouraged to reflect and think critically about their experiences. In addition, they can use their nature journaling to write poetry about nature in a variety of formats and also brainstorm ideas for short works of fiction.

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Teaching keen observation will be a central component of the unit as it is necessary to practice in order to learn from nature as well as life in general. Among people who live close to nature, the moons of the year or even very short seasons are named for observed agricultural events that take place at that particular time. An interesting reading for students is "Japan's 72 Microseasons" which illustrates the close observation of nature by naming seasons after what occurs during each five days of the year. For indigenous peoples such as the Oglala Lakota and Western Abenaki, the names of the moons show significant agricultural and nature related phenomena such as the availability of animals and plants for food. The use of the turtle's back with its 13 large scales is a common symbol in Native North American and would make a great graphic organizer for students to engage in naming the months or seasons of their own school year in a similar fashion after comparing some of the moons named differently by tribes in various geographical areas. In addition to just naming seasons, the class could have monthly celebrations that are themed around the natural events of their own environment. Bringing rituals including food into the class study of nature may have a lasting impact that reading and writing alone do not always have.

As mentioned above, nature journaling will be a key teaching strategy during this unit and included in all visits outdoors. According to Laws and Lygren,⁶ Nature journaling helps students slow down and pay attention, develops creativity and critical thinking, nurtures connection with nature and facilitates interdisciplinary learning. A simple observational activity of "I notice, I wonder, it reminds me of"⁷ can be completed on most of the excursions. The idea of having a "sit spot" is described in detail by Jon Young in his landmark text about the variety of bird songs, *What the Robin Knows.*⁸ There are some basic activities adapted for children in Devin Franklin's "Put on your Owl Eyes" that can be completed by students to help further their individual connections to nature. Students will also be shown pages from Consie Powell's beautiful book *Leave Only Ripples: A Canoe Country Sketchbook*. The pages are inspirational in the way they blend brief prose with pen and ink illustrations of natural artifacts and watercolors of the setting. Thinking and journaling routines provide structure and familiarity for students and allow them to feel secure while exploring unknown territories.

The use of an outdoor classroom is possible in our school and with careful planning can be used throughout the year. Laws and Lygren⁹ advise taking time to make sure students' physical needs are met by anticipating weather related items such as hats, gloves, sunglasses, dry areas to sit, etc., as well as supporting students emotionally who may not be accustomed to spending time outdoors. Previewing activities, using routines, and re-visiting the same spot can be helpful. When the weather does not permit going outside, nature can be brought indoors and even lead toward the building of a classroom collection of artifacts. Perhaps students will want to collect objects on their own natural excursions to bring in and share with the class. Such artifacts could then be used as inspiration for writing assignments on days when inclement weather prevents learning out of doors.

A Note on Teaching Strategies

Throughout this unit outdoor experiential learning is combined with nature journaling, reading and interpretation of poetry and native American legends, the writing of poetry, and reflecting in learning logs. A subsection of the unit is also student book clubs which naturally includes strategies for cooperative learning and peer discourse. An example of the way these strategies are integrated can be seen in the maple syrup

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study which naturally occurs in the springtime, during which students observe trees and the making of syrup in the present day, read a narrative text about the traditional making of syrup, and also participate in a taste test. Additional teaching strategies are highlighted during the parts of the unit in which they occur.

Seasonal Explorations

When school begins in late summer it will be the ideal time to observe and write about the trees in all their lush greenery. Students can learn to identify trees that are on their school's grounds or in its neighborhood including the leaves, bark, and overall form. Meanwhile, they can read a brief informational text on trees which can also serve double duty in the language arts classroom to teach skills such as note taking. The students should be shown some high-quality sample pages of nature journals to get an idea of what the teacher is looking for. Mind mapping (notes that include word, images, and lines to illustrate connections) would be a great use of nature journals to connect what they read about with what they see. A short hike could be taken near the beginning of the school year as it is an excellent team building exercise. If it is possible to climb a hill or rock formation, then time can be spent at the top of the peak writing short poems such as haikus about their observations. Students could engage in an "Eagles Eyes" type activity where they sketch and describe what things look like from far away. Other writing activities from *How to Teach Nature Journaling* include "Poetry of Place and Moment," (151) in which techniques such as sentence starters and alternating between external observation of nature and internal observations of thoughts and feelings are used; in "Zoom in, Zoom Out" (47) students draw an object in magnified, life size and distant scales and could also expand the drawing with written descriptions at each scale.

As fall progresses it will be fascinating for the students to compare how the trees they are now familiar with differ in the manner in which they transition as seasons cycle. Obviously, we can compare and contrast conifers to deciduous trees but also look more closely at our maples, oaks and beeches in addition to other trees around us. With the rich New England fall foliage we are in the perfect time and place to integrate an art project, possibly painting or colored pencil or pastel work with the writing of poetry. Students could choose two trees to compare and contrast in an essay in order to integrate the necessary core standards for literacy. The Cherokee legend "Why Some Trees Are Always Green" would be appropriate to accompany this study. Students can also write their own legends about why leaves turn colors!

While winter may be a more challenging time to spend time outdoors, it is certainly possible to go for a walk around the neighborhood on a sunny day. Students can inspect buds and observe patterns of branches that are hidden during when the foliage is full. We can also observe snow and ice and its effects on trees from the comfort of our warm classrooms. Bruhac and Caduto's *Keepers of Life* book has a guide for a "Conifer Field Excursion" which can be used on a winter walk in order to help identify some of the treasures of winter. Following a New England snowstorm is the perfect time to introduce students to Robert Frost's classic "Stopping by Woods on a Snowy Evening." Students could also search for their own winter themed poems. Winter is also the perfect time for students to participate in survival book clubs which are described below.

By springtime students are thrilled to go outside for a break from their school day routines. In our district it is possible to take a field trip to an agricultural school that has a maple sugaring operation to actually see sap being boiled down and learn about the production of maple syrup, an important historical and present-day natural resource for our locality. Students can use all their senses to compare pure maple syrup with "Log

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Cabin" in a blind taste test. The teacher can tell the traditional Abenaki maple syrup legend in which Glukabe changes maple syrup to thin sap because of the gluttony of the people.¹³ This legend can be used to review the analysis of a short tale for a theme, or as a starting off point for students to write their own legends. All the students can read Chapter 12 of Loise Erdrich's *The Birchbark House*, "Maple Sugar Time," about Omakayas' experience with maple sugaring in the traditional way from *The Birchbark House and* compare it with the modern method used by local farmers as well as a higher tech method on larger scale farms which are viewable on videos.

Another focus for early spring can be on urban animals, who are typically quite active during this period. Students should be able to observe squirrels and birds such as robins, sparrows or pigeons in an urban or suburban setting. The students could study the poem "Experiment to Me" by Emily Dickinson¹⁴ and have fun analyzing the short verse's literary elements including theme. Egrets may be familiar to some students because of the proximity of our city to the shoreline; "The White Egret" by Paul Janeczko¹⁵ is a good example of concrete poetry which can be used to inspire students to write concrete poems about their favorite urban animals (more on this below). In one of our outdoor classrooms, Cercis Canadensis, the Eastern Redbud, is an early bloomer. With its beautiful magenta color and edible blossoms, it is a tree that students can easily learn to identify and remember. Directly outside the classroom window is a huge Fagus Sylvatica Purpurea that is approximately 300 years old. Students are interested to know that the remodeling of a church to our school building was done around this tree that will probably outlive us all. Our nature teacher from the local high school teaches us how to estimate the tree's age, identify the seed pods and understand damage to the elephant skin-like bark. It is hoped that other teachers who use this unit or portions thereof will identify similar interesting points about their own school's natural landscapes.

Every effort should be made to find a group of daffodils so students can experience firsthand the magic of "I Wandered Lonely as a Cloud." Students can plant daffodils earlier in the year that would be in blossom now. At this point it would be ideal if students can go outside for one class per week to witness the rapid changes spring brings to the natural world. This period should overlap with April which is National Poetry month and an ideal time for students to study a few specific forms of poetry and to try their hand at them using something from our time outdoors as a starting off point. As the school year draws to a close students can observe the trees they have visited previously in full foliage and write tree poems. The Gingko Biloba, a tree with ancient history is great to explore the sense of touch with its leathery fan-shaped leaves, and the poem "Willow and Ginkgo" has a plethora of figurative language to explore along with the allusions to life in an urban area which students might identify with. "Oak After Dark" by Joyce Sidman¹¹8 is written from the perspective of the oak tree; "Night Spider's Advice" from the point of view of the Spider (16) and the charming "I Am a Baby Porcupette" (18) quite obviously from that of a porcupine. Students can write poems from the point of view of either flora or fauna, or alternatively address their poems to the plant or animal of their choice. All the poems students have written in their journals will also be used for one of the unit's culminating projects.

Sample Lesson - Hike in a Local Park with Poetry Writing

Objectives

Students will become comfortable with the idea of spending time in nature.

Students will take a local hike and have fresh air, exercise, and get to know a local park.

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Students will practice observational skills and write or draw their observations.

Students will learn to write a form of poetry.

Materials

Weather appropriate clothing for hiking

First aid kit for emergencies and including any medication needed by students

Water bottles

Snacks appropriate for the class

Nature journals and pencils

Procedure

- 1. The teacher will need to spend some time planning this hike, taking a practice hike and finding additional chaperones to accompany the class.
- 2. The class should be thoroughly prepared for how long the hike will take and what type of clothing to wear.
- 3. The class can hike, preferably to the top of a small peak where there is a view. If there are any special natural features the teacher can point these out.
- 4. At the top students are directed to find a particular tree, plant, or other artifact to observe, describe and draw.
- 5. The students are encouraged to turn their prose writing into poetry by using figurative language.
- 6. Back in class students can revise their poems and illustrate them for wall display.

Survival Book Clubs

In recent years it has become a best practice to supplement or even substitute whole class reading of core novels with themed book clubs which incorporate student choice, small group work with their peer discussions and cooperative learning, including final presentations during which the whole class can hear about each selection and decide if this would be a book they might select for independent reading. The topic of survival is engaging for middle school aged children and is a popular topic in literature. Many books have been chosen along the theme of survival in nature so students can choose one with characters or a setting they are most interested in. The books curated here are only a sampling of what is available on the topic of survival in the wilderness for your teens. Ideally, each individual teacher would select a range of titles appropriate for their students.

Book clubs are introduced with a whole class read of the first two sections of *The Birchbark House* by Louise Erdrich. This particular text was chosen for the whole class to read because the author is an enrolled member of the Chippewa Indians and the class will benefit from learning a little about her. The book also begins with an episode of survival and there are beautiful descriptions of nature both as resources as well as a threat. A model book group will be held to familiarize students with the protocol for survival book clubs.

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Sample Lesson - Introduction to Survival Book Clubs

Objective

Students will learn the purpose of reading books about survival in order to enhance their knowledge about nature and nature writing.

Students will learn how to discuss literature and responses in a small group of peers who have read the same literature.

Students will hear about various books offered for the classroom clubs and choose their top three.

Materials

Copies of the first two sections of *The Birchbark House* for each student

Graphic organizer for two-column notes

Book Club Reflection Handout

Multiple copies of survival themed books appropriate for middle school students

Procedure

- 1. The teachers will introduce the concept of survival literature that is set in the natural world and place it in the context of a yearlong study on nature and nature writing.
- 2. The students will be instructed to read the short story "The Most Dangerous Game" by Richard Connell and annotate the story with question marks placed in parts they do not understand.
- 3. Students will be given a graphic organizer with directions to select three sentences which describe the natural aspects of the setting. Students will be asked to look for how natural phenomena are both a help and hindrance to survival.
- 4. Teacher will ask for volunteers to engage in a fishbowl discussion in front of the class, and select four students, who along with the teacher will make up a discussion group.
- 5. The fishbowl group will sit in a circle in front of the class. Members will take turns sharing the quotes from the story they have selected, going round robin. They will discuss their answers to the questions in step three.
- 6. Following the fishbowl discussion the teacher will open up the discussion on the story to the whole class.
- 7. The teacher will give brief book talks on each of the books selected for the clubs and also pass the books around to the students.
- 8. Each student will rate their top three books.
- 9. The teacher will formulate a heterogenous group for the purpose of the clubs.

Curated Titles for Survival Book Clubs

Damselfly by Chandra Prasad - The modern retelling of *Lord of the Flies* is the story of an ethnically diverse mixed gender fencing team whose plane goes down on the same remote island as its fictional inspiration. However, this version closely explores power struggles between various personalities while elaborating on the description of the natural environment. The knowledge of one of the protagonists about nature and survival is a key focus and she even instructs the survivors in the close observation of a square foot of the island in an

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exercise that can be replicated by the class. The ambiguous ending of this tale captures the imagination of many students who can be encouraged to add their own final chapters.

The Birchbark House by Louise Erdrich - This is the first book in a series about the Ojibwe People of Lake Superior written by a member of the Turtle Mountain Band of Ojibwe. We meet and fall in love with Omakayas, an independent, spirited and clever orphan who is adopted into a loving family. In reading this book the middle school student learns much about the varied conditions of nature requiring survival skills, as well as the respectful and reciprocal relationship that Native Americans have with nature. Some of the highlights include a close encounter Omakayas has with two young bear cubs who become her spiritual brothers, and the chapter describing maple sugaring mentioned above.

The Day My Mother Left by James Prosek - Keen natural description characterizes this tale of how nature can help a nine-year-old boy with emotional survival in the face of abandonment by his mother. Jeremy is devastated, confused and angry over the sudden and complete loss of his mother to another family and only by spending time in nature and drawing birds does he find the inner strength to face life and even find some level of inner peace. Students who have experienced loss of a parent may find inspiration in this straightforward story with detailed pen and ink drawings by the author.

Dry by Neal Shusterman and Jarrod Shusterman - This semi-apocalyptic novel is set in California but during a drought so severe that a whole city is completely cut off from any water supply. Teenagers need to figure out how to survive without their parents in a place where people are literally killing each other over water. This book does a good job at illustrating how precarious our current society's relationship with natural resources is and what could happen if we don't change things now.

Game of Silence by Louise Erdrich - In the sequel to *The Birchbark House*, Omakayas grows up as a full-fledged member of the Ojibwe, but also learns that soon they must leave their paradise island on Lake Superior and move further west due to the expansion of white settlements. The novel is rich with details about daily life of a people and time in close relationship to nature. Characters in this book include young people and adults who cross traditional gender roles and challenge stereotypes regarding indigenous and white settlers as well.

Makoons by Louise Erdrich - The saga of Omakayas continues with the next generation and follows the development of her very own twin sons, Chickadee and Makoons, who each have their own book in the series. This final book in the series is particularly interesting with its male protagonist who is actually kidnapped, has to survive by his own wits under dire circumstances as a 9 year old , and also participates in one of the last large-scale buffalo hunts of his tribe. This may be appealing to those who want to read a novel in the voice of a boy and with a focus on animals.

Lost on a Mountain in Maine by Donn Fendler - This true story is well known to Maine schoolchildren as the author spent the latter part of his life visiting schools around the state to tell it. When he was 12 years old in 1939 Donn Fendler became separated from his father and friends at the peak of Mount Katahdin, the state's most difficult and highest mountain to climb. He spent six days wandering in the wilderness with no supplies and barely any clothing. His story is an inspirational real life adventure tale that illustrates the value of close observation in a life and death situation.

Paradise on Fire by Jewell Parker Rhodes - Children growing up in the city will relate to Adaugo's journey from the Bronx, where she was orphaned in a house fire and is being raised by her Nigerian grandmother, to wilderness camp in California, where she makes her first friends and also winds up having to lead them out of

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the woods in a life threatening forest fire. Adaugo, whose name in the Nigerian language means flies with eagles, uses her keen observational skills to develop a close relationship with nature starting from nothing. The book demonstrates how nature can both heal from trauma and be a source of strength.

Playing with Fire by April Henry - This is another book about teens, and adults, who need to escape from a life-threatening forest fire when only one of their group has much hiking experience. The main character, Natalie, has taken some first aid classes and gets to apply many of her skills and extrapolate them to new situations. A variety of medical conditions along with their first aid remedies are described. In addition, Natalie has to deal with a panic attack and her own anxiety caused by PTSD and describes the 5-4-3-2-1 technique that many students would find really helpful! The book is written in short chapters and is very suspenseful; it may appeal to reluctant readers.

Wild Bird by Wendelin Van Draanen - This novel is perfect for a mature reader who can handle material about a high school student who has become mixed up in drugs and stealing and is angry at her parents for moving her across states and being too busy to pay her any attention. She is forced to go to a wilderness rehabilitation program where she has to learn to start a fire with a bow drill and survive in the wilderness. Here too, we see nature healing young people and helping them discover their own inner strength.

Sample Lesson - Culminating Book Group Projects

Objective

Each group will learn how to give a presentation to the class outlining main features of the book along with a critical review in order for members of the class who have not read it to learn about the book and decide if they want to read it.

Materials

Books about survival in nature used for the clubs

Access to Google Slides

Template for note taking on all the presentations

Procedure

- 1. Following the group reading of the book they will be directed to prepare a slide deck with the following information each on its own slide:
 - a. Title of book with picture of the cover
 - b. Information about the author
 - c. Main characters
 - d. Setting with an emphasis on nature and including photos
 - e. Main conflict of the book
 - f. Rating of the book using five star system and justification for rating
 - g. Who would enjoy this book and why
- 2. The students will be instructed to take notes on all the presentations and then encouraged to borrow ones they would like to read from the classroom library to be used for independent reading.

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Culminating Projects and Portfolios

This broad-based unit lends itself to many possible culminating projects. First, the book clubs may end with the creation of a group project focusing on the settings and theme of the novels, as well as the presentations for the class, with the goals of students finding other books they want to read themselves. Second, toward the end of the school year, in May, students will have enough experiences in nature and have heard stories, read poems, and at least one work relating to the survival theme in order to write their own piece of "flash fiction." The assignment will be structured with certain parameters regarding character development, conflict and setting. This will provide an opportunity for students to express themselves in a creative way, while anchoring them in literary elements and providing them with a foundation to think critically about their own relationship with the natural world. Third, the students could create small hardcover books of their own poetry collections that are illustrated with water colors. A fourth idea is that students create an infographic focused on an important component of their environmental learning or global climate change related issue. Whichever projects are chosen it is important for it to have a narrative component with students given a chance to write a personal reflection of their yearlong exploration of the natural world.

All students will also complete a final reflection about their nature learning over the entire year. This will give both the student and the teacher a chance to see if goals were met and the students' relationships with nature have changed. Some guiding questions will be provided to help the students focus on the differences between their knowledge and attitudes at the beginning and end of the unit, as well as to find out which readings and videos had the biggest impact.

Both the final reflection and culminating project will become a part of the student's portfolio of work about nature which will be housed in a binder along with their nature journal. Thus, it is hoped that a unit with many varied parts throughout the school year becomes a unified piece of learning with a strong impact on the child's development.

Appendix on Implementing District Standards

Common Core Standards for Reading of Literature - Grade 8

CCSS.ELA-LITERACY.RL.8.1

Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. Students will do this when they are reading their survival themed books.

CCSS.ELA-LITERACY.RL.8.2

Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text. *Again, this standard will be met as students respond to the text in survival book clubs.*

CCSS.ELA-LITERACY.RL.8.4

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Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts. As part of this unit students will be analyzing poetry.

CCSS.ELA-LITERACY.RL.8.10

By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6-8 text complexity band independently and proficiently. *To be completed as students analyze both long and short works of fiction and poetry.*

Common Core Standards for Writing - Grade 8

CCSS.ELA-LITERACY.W.8.3

Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. Students will complete this standard when they write flash fiction as one of the culminating projects.

CCSS.ELA-LITERACY.W.8.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. Students will be writing poetry in response to nature.

CCSS.ELA-LITERACY.W.8.10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. Routine writing assignments in the nature journals will facilitate the meeting of this standard.

Bibliography for Teachers

Bruchac, Joseph, and Michael J. Caduto. 1997. *Keepers of Life: Discovering Plants Through Native American Stories and Earth Activities for Children*. Golden, Colorado: Fulcrum Pub. This is an anthology of Native American stories and legends that are paired with activities and nonfiction text. It is a great resource for teachers who may select additional stories besides the ones mentioned in this unit.

Caduto, Michael J., and Joseph Bruchac. 1997. *Keepers of the Earth: Native American Stories and Environmental Activities for Children*. Golden, Colorado: Fulcrum Publ. Similar to the above book but with an emphasis on stories pertaining to the land.

Carson, Rachel. 2017. *The Sense of Wonder: A Celebration of Nature for Parents and Children*. New York: HarperCollins. This brief text shows how any adult can become a guide for a child to observe, appreciate, and come to rely on nature.

Daniels, Patricia. 2017. *Ultimate Explorer Field Guide: Trees*. New York: National Geographic Society. This is a resource for teachers to get information about various trees that may be on their school grounds or a walk

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they take with the class.

Dungy, Camille T., ed. 2009. *Black Nature: Four Centuries of African American Nature Poetry*. Athens, Georgia: University of Georgia Press. An anthology for the teacher to find diverse poems on many topics related to nature.

Franklin, Devin. 2019. Put On Your Owl Eyes: Open Your Senses & Discover Nature's Secrets; Mapping, Tracking & Journaling Activities. North Adams, MA.: Storey Publishing, LLC. A guide with many examples of how to observe nature and journal one's observations.

Kuo, Ming. 2019. "Six Ways Nature Helps Children Learn." Greater Good Science Center. https://greatergood.berkeley.edu/article/item/six_ways_nature_helps_children_learn. This article outlines the benefits of nature for children.

Laws, John M., Amy Tan, and Emilie Lygren. 2020. *How to Teach Nature Journaling: Curiosity, Wonder, Attention*. Berkely, California.: Heyday. This guide has prose explanations of the benefits of nature journaling as well as many activities that can be used in and out of the classroom.

Louv, Richard. 2008. *Last child in the woods*. Updated and Expanded edition ed. New York: Algonquin Books. Describes the lack of exposure to nature than many children are experiencing in the present time.

Young, Jon. 2013. What the Robin Knows: How Birds Reveal the Secrets of the Natural World. Edited by Dan Gardoqui. Boston: Mariner Books. Discusses and gives examples of close observation of birds and how much we can learn from them, and extensively describes using "sit-spots" and "walking in nature" methods for nature journaling.

Reading List for Students

CBC Kids News. 2019. "Climate Change from Kid's Perspective." YouTube. https://www.youtube.com/watch?v=K86Hvdb--m8&t=39s. A short video used to explain global climate change to students.

Dickinson, Emily. 2013. "Experiment to me." Wikisource. https://en.wikisource.org/wiki/Experiment_to_me. This classic poem is accessible for children to bring into awareness the many levels of observation and interpretations of literature and nation.

Erdrich, Louise. 1999. *The Birchbark House*. New York: Hyperion Books for Children. This historical fiction novel tells the story of a young girl growing up with a tribe of Chippewa and focuses on her close observation of nature and relationship with animals.

Erdrich, Louise. 2006. *The Game of Silence*. New York.: HarperCollins. This text continues the story of Omakayas which was begun in the previous listing.

Erdrich, Louise. 2018. *Makoons*. New York: HarperCollins. This final book of the same series tells the story of Omakayas' young son who experienced one of the final large scale buffalo hunts in western North America.

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Fendler, Donn, and Joseph Egan. 1992. Lost on a Mountain in Maine. Edited by Joseph Egan. New York: HarperCollins. This short nonfiction book tells the story of Donn Fendler who was lost on Mount Katahdin for a week when he was eleven years old.

Frost, Robert, and Henry Holt. 1923. "Stopping by Woods on a Snowy Evening by Robert...." Poetry Foundation. Accessed March 27, 2022.

https://www.poetryfoundation.org/poems/42891/stopping-by-woods-on-a-snowy-evening

This classic poem frequently taught to middle school students helps them think about being outdoors during the winter in a new way.

Frost, Robert, Rudyard Kipling, and Emily Dickinson. 2012. *National Geographic Book of Animal Poetry: 200 Poems with Photographs that Squeak, Soar, and Roar!* Edited by J. P. Lewis. Washington, D.C.: National Geographic. Students can look through this anthology for mentor texts of poems about nature.

"Gluskabe Changes Maple Syrup - An Abenaki Legend." n.d. FirstPeople.us. Accessed March 27, 2022. https://www.firstpeople.us/FP-Html-Legends/GluskabeChangesMapleSyrup-Abenaki.html. The is a northeastern tribe's version of the maple syrup legend.

"Introduction to Climate Change." 2016. YouTube. https://www.youtube.com/watch?v=SX7WyyMlqAs. Another short video which allows students to learn some basic information about global climate change.

Henry, April. 2021. *Playing with Fire*. New York: Henry Holt and Company (BYR). This novel for teens tells the story of a group of people who are lost in the woods during a very dangerous forest fire.

"Japan's 72 Microseasons | Nippon.com." 2015. nippon.com. https://www.nippon.com/en/features/h00124/. A short article about the way ancient Japanese people had names for various natural periods that occur throughout the year.

Jimenez, Stephanie, and Milada Vigerova. 2019. "Wildness is Everywhere by Stephanie Jimenez." Common Lit. https://www.commonlit.org/en/texts/wildness-is-everywhere. A poem used to help students learn to appreciate nature who may not have experience with it.

Lentini, Anthony, and Mick Garratt. 1971. "Autumntime by Anthony Lentini." Common Lit. https://www.commonlit.org/en/texts/autumntime. This is a futuristic science fiction story about a world without trees.

Merriam, Eve. 2015. "Willow and Ginkgo." Poetry.com.

https://www.poetry.com/poem/44101/willow-and-ginkgo. A poem accessible for students comparing the two trees using several different forms of figurative language.

Powell, Consie. 2005. Leave Only Ripples: A Canoe Country Sketchbook. Ely, Minnesota: Raven Productions, Incorporated. This is a journal of the authors' family canoe trip in Northern Minnesota and is illustrative for teaching students how to nature journal.

Prasad, Chandra. 2018. *Damselfly: A Novel*. New York: Scholastic Press. A modern take on *Lord of the Flies*, a diverse group of students are stranded on a deserted island with nothing but their own wits to help them survive.

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Prosek, James. 2009. *The Day My Mother Left*. New York: Simon & Schuster Books for Young Readers. This is the story of a nine year old boy who has been abandoned by his mother and finds some solace through spending time outdoors and drawing birds.

Rhodes, Jewell P. 2021. *Paradise on Fire*. New York: Little, Brown. A novel about a girl from the Bronx who is sent to a wilderness camp and then finds herself stranded with a group of friends in the middle of a forest fire.

Shusterman, Neal, and Jarrod Shusterman. 2018. *Dry*. New York: Simon & Schuster Books for Young Readers. The is a dystopian novel about a community in California that has run out of water and is cut off from other communities.

Sidman, Joyce. 2010. *Dark Emperor and Other Poems of the Night*. New York: Houghton Mifflin Books for Children. An anthology of poems about animals and the outdoors.

Van Draanen, Wendelin. 2017. *Wild Bird*. New York: Alfred A. Knopf. This is realistic fiction about a high school student who has befriended people who are using alcohol and drugs and using her. She is sent to a wilderness camp where she has to learn to survive in nature as well as come to terms with her anger.

Wordsworth, William. 1815. "I Wandered Lonely as a Cloud by William Wordsworth." Poetry Foundation. Accessed March 27, 2022. https://www.poetryfoundation.org/poems/45521/i-wandered-lonely-as-a-cloud. This classic poem about daffodils is a great introduction to the glories of springtime flowers, spending time in nature, and personification.

Notes

- ¹ In How to Teach Nature Journaling: Curiosity, Wonder, Attention, p. 4.
- ² Kuo, Ming. 2019. "Six Ways Nature Helps Children Learn." Greater Good Science Center.
- ³ Louv, Richard. 2008. Last child in the woods
- ⁴ Bruchac, Joseph, and Michael J. Caduto. 1997. *Keepers of Life*. Page 239.
- ⁵ Bruchac, Joseph, and Michael J. Caduto. 1997. Keepers of Life
- 6 In How to Teach Nature Journaling: Curiosity, Wonder, Attention p.5
- 7 In How to Teach Nature Journaling: Curiosity, Wonder, Attention p.36
- 8 Young, Jon. 2013. What the Robin Knows: How Birds Reveal the Secrets of the Natural World.
- 9 In How to Teach Nature Journaling: Curiosity, Wonder, Attention p.11
- ¹⁰ In Bruchac, Joseph, and Michael J. Caduto. 1997. *Keepers of Life: Discovering Plants Through Native American Stories and Earth Activities for Children*, page 111.

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- ¹¹ Ibid, page 123.
- ¹² Frost, Robert, and Henry Holt. 1923. "Stopping by Woods on a Snowy Evening by Robert...." Poetry Foundation. Accessed March 27, 2022
- ¹³ Gluskabe Changes Maple Syrup An Abenaki Legend." n.d. FirstPeople.us. Accessed March 27, 2022.
- ¹⁴ Dickinson, Emily. 2013. "Experiment to me." Wikisource. https://en.wikisource.org/wiki/Experiment_to_me.
- ¹⁵ In National Geographic Book of Animal Poetry: 200 Poems with Photographs that Squeak, Soar, and Roar! P. 80
- ¹⁶ Wordsworth, William. 1815 "I Wandered Lonely as a Cloud by William Wordsworth." Poetry Foundation. Accessed March 27, 2022
- ¹⁷ Merriam, Eve. 2015. "Willow and Ginkgo by Eve Merriam."
- ¹⁸ In Dark Emperor and Other Poems of the Night. Page 14.

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