Curriculum Guide

Walden, a game

USC Game Innovation Lab

Journeys in Film™
EDUCATING FOR GLOBAL UNDERSTANDING
In Partnership with USC Rossier School of Education

Walden, a game

Curriculum Guide

Journeys in Film

www.journeysinfilm.org

Journeys in Film™
EDUCATING FOR GLOBAL UNDERSTANDING
In Partnership with USC Rossier School of Education

USC Game Innovation Lab

Educating for Global Understanding

www.journeysinfilm.org

Authors of this curriculum guide

Kate Fitzgerald

Tracy Fullerton

Mary Anne Kovacs

Lara Tukarski

Laura Zlatos

Journeys in Film
50 Sandia Lane
Placitas, NM 87043
505.867.4666
www.journeysinfilm.org

USC Game Innovation Lab
Tracy Fullerton, Director
3470 McClintock, SCI 201
Los Angeles CA 90089-2211
Email: uscgameinnovationlab@gmail.com

Journeys in Film™
EDUCATING FOR GLOBAL UNDERSTANDING
In Partnership with USC Rossier School of Education

Table of Contents

About *Journeys in Film*

Founded in 2003, ***Journeys in Film*** operates on the belief that teaching with film has the power to prepare students to live and work more successfully in the 21st century as informed and globally competent citizens. Its core mission is to advance global understanding among youth through the combination of age-appropriate films from around the world, interdisciplinary classroom materials coordinated with the films, and teachers' professional-development offerings. This comprehensive curriculum model promotes widespread use of film as a window to the world to help students to mitigate existing attitudes of cultural bias, cultivate empathy, develop a richer understanding of global issues, and prepare for effective participation in an increasingly interdependent world. Our standards-based lesson plans support various learning styles, promote literacy, transport students around the globe, and foster learning that meets core academic objectives.

Selected films—and here a complex multimedia game—act as springboards for lesson plans in subjects ranging from math, science, language arts, and social studies to other topics that have become critical for students, including environmental sustainability, poverty and hunger, global health, diversity, and immigration. Prominent educators on our team consult with filmmakers and cultural specialists in the development of curriculum guides, each one dedicated to an in-depth exploration of the culture and issues depicted in a specific film. The guides merge effectively into teachers' existing lesson plans and mandated curricular requirements, providing teachers with an innovative way to fulfill their school districts' standards-based goals.

Why use this program?

To be prepared to participate in tomorrow's global arena, students need to gain an understanding of the world beyond their own borders. ***Journeys in Film*** offers innovative and engaging tools to explore other cultures and social issues, beyond the often negative images seen in print, television, and film media.

For today's media-centric youth, film is an appropriate and effective teaching tool. ***Journeys in Film*** has carefully selected quality films that tell the stories of young people living in locations that may otherwise never be experienced by your students. Students travel through these characters and their stories: They drink tea with an Iranian family in *Children of Heaven,* play soccer in a Tibetan monastery in *The Cup*, find themselves in the conflict between urban grandson and rural grandmother in South Korea in *The Way Home,* watch the ways modernity challenges Maori traditions in New Zealand in *Whale Rider,* tour an African school with a Nobel Prize-winning teenager in *He Named Me Malala,* or experience the transformative power of music in *The Music of Strangers: Yo-Yo Ma & the Silk Road Ensemble.*

In addition to our ongoing development of teaching guides for culturally sensitive foreign films, ***Journeys in Film*** brings outstanding documentary films and educational games to the classroom. Working with the Rossier School of Education at the University of Southern California, ***Journeys in Film*** has identified exceptional narrative and documentary films that teach about a broad range of social issues in real-life settings such as famine-stricken and war-torn Somalia, a maximum-security prison in Alabama, and a World War II concentration camp near Prague. ***Journeys in Film*** guides help teachers integrate these films into their classrooms, examining complex issues, encouraging students to be active rather than passive viewers, and maximizing the power of film to enhance critical thinking skills and to meet the Common Core Standards. Our interdisciplinary approach is also used for educational games such as *Walden*, so that teachers from a range of disciplines can integrate the game into their classes as an appealing way to generate student engagement and meet teaching standards.

Journeys in Film is a 501(c)(3) nonprofit organization.

A Letter From Liam Neeson

Working in films such as *Michael Collins* and *Schindler's List*, I've seen the power of film not only to entertain, but also to change the way audiences see themselves and the world. When I first met Joanne Ashe, herself the daughter of Holocaust survivors, she explained to me her vision for a new educational program called ***Journeys in Film: Educating for Global Understanding***. I grasped immediately how such a program could transform the use of film in the classroom from a passive viewing activity to an active, integral part of learning.

I have served as the national spokesperson for ***Journeys in Film*** since its inception because I absolutely believe in the effectiveness of film as an educational tool that can teach our young people to value and respect cultural diversity and to see themselves as individuals who can make a difference. ***Journeys in Film*** uses interdisciplinary, standards-aligned lesson plans that can support and enrich classroom programs in English, social studies, math, science, and the arts. Using films as a teaching tool is invaluable, and ***Journeys in Film*** has succeeded in creating outstanding film-based curricula integrated into core academic subjects.

By using carefully selected documentary and foreign films that depict life in other countries and cultures around the globe, combined with interdisciplinary curricula to transform entertainment media into educational media, we can use the classroom to bring the world to every student. Our film program dispels myths and misconceptions, enabling students to overcome biases; it connects the future leaders of the world with each other. As we provide teachers with lessons aligned to Common Core Standards, we are also laying a foundation for understanding, acceptance, trust, and peace.

Please share my vision of a more harmonious world where cross-cultural understanding and the ability to converse about complex issues are keys to a healthy present and a peaceful future. Whether you are a student, an educator, a filmmaker, or a financial supporter, I encourage you to participate in the ***Journeys in Film*** program.

Please join this vital journey for our kids' future. They are counting on us. ***Journeys in Film*** gets them ready for the world.

Sincerely,

A Letter From Tracy Fullerton

I was twelve when my father gave me a copy of *Walden, or Life in the Woods* by Henry David Thoreau. We were visiting family in Massachusetts and I read the book while floating in a rowboat on a pond not far from Walden itself. This experience brought the adventure of living in nature alive for me, in a way that made the book a special favorite, one that I returned to again and again as I got older. Each time I read the book — as a high school student, as a freshman in college, and as an adult looking for inspiration — I discovered different types of wisdom in its pages. The book, like the pond, seemed a multifaceted surface, reflecting back thoughts on whatever questions about life were absorbing me at the time.

I have found that many people today are introduced to *Walden* in a less idyllic way — forced to read it in classrooms cut off from nature and devoid of the special memories that tend to make a piece of literature resonate with its reader. But the words that Thoreau wrote about his stay at Walden Pond are as important to us today as they were when he wrote them — perhaps more important. His thoughts about how advancements in technology and communication change the quality and pace of our lives are deeply relevant to those of us living in the digital age. So are his critiques of other aspects of society, including our relationships to governments and, of course, to nature.

When I set out to create a game based on *Walden*, I wanted to create an experience that would give players an introduction to this important book that goes beyond just reading Thoreau's words. I wanted to create a virtual world that would allow you to explore his ideas in context, to try for yourself his experiment in living simply in nature, and to find your own answers to the questions he was asking about life and how to live it.

We often think of great writers like Thoreau as stodgy old men living in a distant past that is hard for us to relate to. But when

Thoreau went to the woods, he was a relatively young man still searching for his best path in life. He had tried several careers, including teaching, surveying, construction, and working in his father's pencil factory. He had recently experienced a great loss in his life that caused him to think deeply about how important it is to live our lives fully every moment of every day. When he writes, "I went to the woods because I wished to live deliberately, to front only the essential facts of life … and not, when I came to die, discover that I had not lived," he is speaking for all of us when we consider the preciousness of life and the importance of choosing wisely what we do with our time here on Earth.

I hope that you enjoy the opportunity to play "deliberately" in this virtual Walden, and that exploring the game will inspire you to read Thoreau's words with a deeper feeling for the questions he was asking, the person he was, the times he lived in, and then, perhaps, to apply that inspiration to finding your own personal Walden Pond, wherever you live, and however you define it.

Sincerely,

Tracy Fullerton
Game Designer and Director

Credits:

Voice of Henry David Thoreau: Emile Hirsch

Game Director, Designer, Writer: Tracy Fullerton

Lead Programmer, Designer: Todd Furmanski

Lead Artist, World Design: Lucas Peterson

Composer, Sound Designer: Michael Sweet

With thanks to:

National Endowment for the Humanities

National Endowment for the Arts

Sundance Institute New Frontier Story Lab

To the Teacher

This curriculum guide to *Walden, a game*, like other ***Journeys in Film*** resources, is based on a few fundamental beliefs:

- That an interdisciplinary approach will reach students who have diverse learning modalities and interests.
- That a well-designed video game and accompanying learning activities can have real and lasting educational benefits for students
- That talented teachers interacting with real students on a daily basis are best positioned to write good lesson plans.

The lessons in this guide will give students background to better understand the video game *Walden* and to maximize what they learn from playing it. Through the lessons they learn more about the life of Henry David Thoreau, the times in which he lived, and the legacy of environmentalism that he inspired. There are lessons that are appropriate for science classes, particularly environmental science; other lessons for English Language Arts and Visual Arts serve to bridge the gap that often exists between the sciences and the humanities in a typical secondary school setting.

Lesson 1 gives students and teachers a basic understanding of the contents of the game and how it is played. It provides technical requirements, information about educational licenses, a glossary of game design terms, and a summary of each section of the game. There are discussion questions for use during the game and assignments to be used when it has concluded.

Lesson 2 reviews with students the major events in United States history that occurred during Thoreau's lifetime and shows how they intersected with and affected his own life. Students have the opportunity to consider Thoreau's own words thoughtfully and decide their applicability to today's world. They also research the work of environmentalists who looked to Thoreau for inspiration.

The artwork that illustrates the scenes of Walden draws upon the style of the first American artistic school, the Hudson River painters. In Lesson 3, students study the characteristics of this school, learn about its roots in Romanticism and nationalism, and create a work of art based on a local landscape but shaped by the philosophy of the Hudson River School.

In the game and Lesson 1, 2, and 3, students have contemplated the words of Thoreau. In Lesson 4, they delve more deeply into the writings of contemporary science and nature writers like Rachel Carson, Annie Dillard, and Aldo Leopold. They write a reflective essay or complete a project about their own experiences with the natural world.

Lesson 5 is designed primarily for science teachers, although other classes may find it useful. Students go out of doors themselves to observe natural phenomena and record their observations in journals. They practice nature sketching and the use of appropriate language to describe patterns and details; they identify specimens and use scientific names. Finally, they create a collaborative map and informal field guide of the area

Although it is possible to use all of these lessons, most teachers will select just one or several to use with their classes. You might wish to consider a team approach built around *Walden* for a memorable experience for your students.

For more information about this and other free Journeys in Film curriculum and discussion guides, please see the Journeys in Film website at www.journeysinfilm.org.

Playing a Serious Game

Enduring Understandings

- Serious games present an opportunity for players to explore ideas interactively; it is essential to play critically in order to understand the meanings embedded in the game mechanics as well as in the game world and story.
- Serious game designers use many techniques to communicate ideas through gameplay, including system design, characters, story, quests and world building.

Essential Questions

- How does a game create meaning?
- How can players learn to interpret the meaning of their game experiences?

Notes to the Teacher

The goal of this lesson is to explore how games communicate meaning to players, and how players themselves can become active, critical players of games and other forms of interactive media.

Walden, a game uses a number of game design techniques to communicate the essence of Thoreau's philosophy to players and to contextualize his writing for players. These include: (a) a simulation of his experiment in "self reliant" living at Walden Pond; (b) a recreation of Thoreau's world circa 1845; (c) a variety of quests engaging the player in Thoreau's daily tasks; (d) letters from family and colleagues revealing Thoreau's personal, social and historical context.

Walden, a game is what is called in game vernacular an "open world" experience. It uses high quality 3D techniques to immerse the player in Thoreau's world and to explore it as they choose. The game designer, Tracy Fullerton, has chosen to place the player in the role of Thoreau. Players engage in the first person, making choices about how to spend their time during each day of the game. The choices that players make will change how their experience unfolds, and thus the outcome of Thoreau's experiment.

The game starts for each player at the same place and time – July 4th, 1845, in a clearing near Thoreau's cabin. However, from there individuals can go anywhere they want in the world and experience its content in very different ways. Overall, the time to play the entire game is approximately six hours. It is not necessary to play the entire game in class; you may wish to allow students access to the game outside of class if they wish to experience more than class time allows.

Before the lesson, set up the game as described below under "Technical Requirements and Set-up." Read the section below titled "Game Structure and Content" before playing in order to gain an understanding of the full scope of the game before discussing it with students.

Common Core Standards addressed by this lesson

http://www.corestandards.org/ELA-Literacy/CCRA/SL/1/
Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

http://www.corestandards.org/ELA-Literacy/CCRA/SL/2/
Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

http://www.corestandards.org/ELA-Literacy/CCRA/SL/4/
Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

Duration

Two to six 50-minute class periods

Assessments

Participation in class discussion

Quiz on game terms (optional)

Materials needed

Copies of *Walden, a Game* installed on class computers

Handout 1: Playing Deliberately

Handout 2: Playing Early Summer

Handout 3: Glossary of Game Design Terms

Handout 4: Assignments

Teacher Resource 1: Walden, a game for the Classroom

Procedure

Part 1

1. Distribute **Handout 1: Playing Deliberately** and **Handout 2: Playing "Early Summer."** Tell students that they will be playing *WALDEN, A GAME* after reading the handouts. Read through the first handout together, discussing as appropriate and encouraging students to ask questions. Tell students to read the second handout after they play, or if they have questions as they play. (Reading too far ahead in the handout may spoil some of the gameplay experience, however.)

2. Play the first 30–45 minutes of the game with students. See below for a description of the game content. Have students save their game by pressing ESC to bring up the game menu and choosing "Save" from the options displayed.

3. Distribute **Handout 3: A Glossary of Game Design Terms**. Go through **Handout 2** with your students, discussing their experiences in the game and referring them to terms on **Handout 3** as necessary.

4. Have students read through **Handout 3** and go over the vocabulary, as you deem necessary, to be certain your students are familiar with each term.

5. Finally, distribute **Handout 4: Assignments**, asking your students to select one (or more) of the assignments to keep in mind (and take notes on) as they play the next season(s) of the game. How many seasons they have time to play is up to you. Students can always save their game progress by pressing ESC and selecting "Save" from the menu.

6. You may wish to have students sign up for assignments in teams to pool their observations of the game prior to reporting.

Part 2

1. Allow students time to play more of the game for the length of time you choose. You can refer to the section below on game structure and content to determine the time that works best for your class.

2. Remind students that they will be writing or speaking about their experiences in the game, so it is best if they take notes and possibly screenshots at they play. Give them the following directions, depending on the type of computer they are using. If students wish to pause the game in order to take notes, they can press ESC. If students are using a Macintosh computer, they can take a screenshot while in the game by pressing Shift+Command+3. The screenshot will be saved by default to the desktop. On a Windows computer, they can press Alt+PrtScn. The screenshot will be saved by default to the clipboard. Open any imaging software, create a new document and press Ctrl+V to save the clipboard image to the new document.

Part 3

1. Have students give oral reports in whatever structure you have established, or, after reading the written reports on the game, ask a few students to read theirs aloud. Allow for class discussion following the reading of each.

2. If desired, review the Glossary on **Handout 3** in preparation for a vocabulary quiz to be given at a later date.

Teacher Resource 1 ▸ p. 1

Walden, a game for the Classroom

Educational Licenses

The education section of the game website (www.waldengame.com/educators) provides information on how to request educational licenses for your classroom, the technical requirements and set-up process, and also an outline of the game structure so that you can direct students towards aspects of the world that relate to the lessons that are most pertinent to your classroom.

The USC Game Innovation Lab offers educators complimentary evaluation licenses through their support email at uscgameinnovationlab@gmail.com. Just contact them with the following information and they will send you a download link.

- Your name
- School and level of instruction
- Course name or domain of study
- Number of students

The lab likes to know how teachers are using the game, so, if you'd like to keep in touch about your class, they would love to hear from you about your experiences at this address as well.

For K-12 classrooms, they offer up to 30 licenses for classroom computers. If you require more than 30 licenses, let them know, as they can provide deeply discounted prices for larger groups. For university and other educational environments, they can create a coupon so that students can purchase the game on their own, as they would any other text used in class, but at a deeply discounted price as well. If you have any questions or needs not covered here, just reach out to the lab at the email above.

Technical Requirements and Set-up

Walden, a game will run on Windows PCs or Macintosh computers that meet the requirements below. Please note that it will not run on Chromebooks or mobile devices. The game uses high quality 3D graphics and runs best on machines that are configured for 3D games.

Windows PC Requirements:

- Windows 7 / 8 / 10
- Processor: 2.4 GHz Dual Core or Equivalent
- Memory: 8 GB RAM
- Graphics: 1024 MB NVidia or ATI graphics card
- Storage: 2 GB available space
- Keyboard & mouse or game controller
  (See this list for supported controllers: http://guavaman.com/projects/rewired/docs/SupportedControllers.html)

Macintosh Requirements:

- OS X 10.9+
- Processor: 2.4 GHz Dual Core or Equivalent
- Memory: 8 GB RAM
- Graphics: 1024 MB NVidia or ATI graphics card
- Storage: 2 GB available space
- Keyboard & mouse or game controller
  (See this list for supported controllers: http://guavaman.com/projects/rewired/docs/SupportedControllers.html)

When you receive your link from the lab, it will take you to a download page on the game distribution site Itch.io. There, you will find download links for both the Windows PC and Macintosh OSX versions of the game. Choose the one that

Teacher Resource 1 ▸ p. 2

Walden, a game for the Classroom

will work for your machine(s) and download it. The file will usually save by default to your downloads folder.

On a Macintosh, the download should automatically unzip once it is finished. (This may take some time, depending on the speed of your Internet connection, so be sure to wait until the download is complete.)

On a PC, you will need to go to your downloads folder and extract the game from the zip file that it is in. To do this, right click on the file called "walden-windows-pc.zip" and choose "Extract All." By default, this will extract the game to your downloads folder, but you can change the destination if you like and save the game somewhere else. Be sure not to move the Walden.exe application out of the main folder, as it needs to be in the same folder as Walden_Data.

As an added note, you can download the original soundtrack for the game with your link. Download the walden-soundtrack.zip file and uncompress as described above for either Macintosh or PC. Use your favorite music player, such as iTunes, to play the included .mp3 files.

Be sure to save the link for your download page on Itch.io in case you need to download the game again or want to install it on another machine.

Game Structure and Content

As mentioned above, the full game is a six-hour-long experience, comprising eight half-seasons of Thoreau's first year in Walden Woods. It is unlikely that you will have time to play the entire game with your class; however, we have provided an outline of the full game content in case you want to play particular scenarios with your class.

The game has a save system that allows you to save your progress in five separate slots, as well as an auto-save slot. This function would come in handy if you wanted to show students a particular piece of content in the game or have them play from a particular point forward.

The game can be played individually, if you have enough computers for each student; however, other methods of playing with students include doubling up students at one computer or projecting one game to a single screen for the whole class and trading off players.

As mentioned, the game is a first-person 3D game, which means that the controls work like a standard first-person game: the W, A, S and D keys move the player in the world and the mouse moves the player's view. Please note that there is no cursor in the game, even though you use the mouse. If you want to click on something, just center it in the screen and left- or right-click. The game contains a tutorial, but if you have questions about the controls or features, press ESC when you are in the game and select "help" from the pause menu that appears.

There are tutorials in the game to teach players all the basic controls; however, for your convenience, here is a list of all the controls in the game:

Teacher Resource 1 ▸ p. 3

Walden, a game for the Classroom

Game Controls

- Move: W (forward), A (left), S (right), and D (back)
- Look: move mouse (Note that there is no cursor in the game, including menus.)
- Interact: left click mouse
- Inspect world: right click mouse
- Open/close journal: J
- Turn pages: Q (back), E (forward)
- Take out/put away lantern: L
- Re-read mail: M
- Run: Press shift key while moving
- Pause game: ESC
- Navigate menus: arrow keys to select, enter key to confirm selection

Game Content: Early Summer

When the game begins, players are put into the world in early summer, near Thoreau's half-finished cabin. Picking up the first arrowhead, as indicated in the tutorial, will begin the story of Thoreau's time in the woods, as he explains in his own words why he has come down to the woods and how he intends to live there. There are many arrowheads to be found throughout the game. Picking these up will cue additional voice-overs from Thoreau on his time in the woods and what he discovered about life during his experiment. Different arrowheads are available each day and season, and in various locations in the world. In all, there are over 300 arrowheads in the game, featuring quotes that together comprise about 20 percent of the book *Walden.*

On this first day of the game, players often choose to explore the half-finished cabin that is just ahead of them in the clearing, where they will find Thoreau's journal and several letters from friends and family. They also may wander the woods, learning to pick berries that are in season or discovering the fishing spot where they will find Thoreau's fishing rod. Early summer will last three in-game "days" of fifteen minutes each. During this first season, living in the woods is easy. Players can pick berries for food, pick up driftwood for fuel, and explore at their own pace. The focus of this first season is on the first two chapters of the book *Walden*: "Economy" and "Where I Lived, and What I Lived For." If you have only a short amount of time to spend with students playing the game, it would make sense to focus on comparing these two chapters to their own experience.

One of the questions that might be asked about the book *Walden* is "What was the nature of Thoreau's experiment in living?" His ideas have been critiqued as hypocritical by some, since he lived so close to the town of Concord, visited often, took dinner with friends and family, and, famously, had his mother do his laundry. But what does Thoreau say about his goals? These first two chapters, when read alongside the first three game days, may provide a good sense for students of Thoreau's goals, his ideas about the "necessities of life," and the nature of both the "mean" and "sublime" aspects of life for which he searching.

It will take approximately 45 minutes of playing time to play through these first three days in class.

Teacher Resource 1 ▸ p. 4

Walden, a game for the Classroom

Discussion questions for this section: What does Thoreau mean by "necessary of life"? What might he consider a luxury or "so-called comforts" of life? Why does Thoreau tell us in such detail the cost of building his cabin and sustaining his experiment? How does the underlying "economy" of his experiment relate to what he is trying to tell us about the nature of human life and society?

When playing first three days of summer in this game, ask students to think about the necessaries of life and how they might learn to live in the woods of Walden. What would they eat? How would they keep warm? What would they do as the seasons changed and winter came?

Journal exercise: The in-game journal is created using Thoreau's own ideas and words. Have students jot down their own ideas about the plants, animals and other items they find as they play in an offline journal of their own. Later, they can use these notes to support writing or discussions that you do in class.

Letters from several characters become available during this season, leading to various narrative quests. At the cabin, there are letters from Thoreau's sister Sophia, Ralph Waldo Emerson, Bronson Alcott, and Louis Agassiz's assistant. At Emerson's house, there are letters between him and Margaret Fuller regarding contributions to *The Dial*. And at the Thoreau family home in Concord there are old letters regarding Thoreau's former teaching aspirations with brother John Thoreau. Each of these collections of letters will change from season to season, and the narrative threads of these letters will expose a number of different aspects of his life and times.

At the post office in town, players will also find letters in Thoreau's letterbox, and job postings on the bulletin board, offering opportunities to collect specimens for Dr. Louis Agassiz, write articles for Horace Greeley, conduct surveys around Walden woods, and find out more about the political themes of the time, including the abolitionist movement and the war with Mexico.

Additionally, players may choose to simply wander the woods, seeking out animals and inspecting the trees and other wildlife of the area. Virtually everything in the woods is "inspectable" – which means that right-clicking over it will reveal its name and a quote from Thoreau about it. When a player inspects something new, the quote will be added to the in-game journal, and over the course of the game players will "write" their own personal version of *Walden* in this journal.

At the end of each 15-minute "day" in the game, players will be offered a chance to review what they have written in their journals that day and then select where in the world they would like to awaken.

Game Content: Late Summer

Each three days of the game, the season will change as the year advances. During late summer, the player may find that there are different berries and plants available to be picked. To find out more about all the edible life in the game, as well as wildlife, and to get instructions on how to grow beans in

Teacher Resource 1 ▸ p. 5

Walden, a game for the Classroom

the bean field, players can go to Emerson's house and read from the books and almanac on the table in his library.

If there is time in your class, you can assign students to plant beans in the bean field on the first day of the game. If they are cared for properly, they will be ready to harvest on Day 6 of the game, the final day of late summer. Thoreau wrote extensively about his bean field, and so reading Chapter 7, "The Bean-Field," would be a good supplement to such an assignment.

While students are clearing, planting, weeding and harvesting their beans, they will find a number of arrowheads related to this chapter. Discussing these in the context of the act of growing and harvesting their in-game beans, which will take approximately 90-100 minutes of play time, may help students understand why Thoreau writes in such detail about his beans.

Discussion questions: Why was Thoreau "determined to know beans"? What does he mean when he says he would have planted seeds such as "sincerity, truth, simplicity, faith, innocence, and the like" if he farmed another summer? The bean field and its yield might be seen as a metaphor for the "fruits of labor." What "seeds" do you sow and what fruits do you hope to obtain from them?

In addition to harvesting the bean field, late summer in the game offers an introduction to Thoreau as an abolitionist and activist. In the post office, players will find references to William Lloyd Garrison, editor of *The Liberator*, an influential abolitionist newspaper. On the second day of late summer, players will receive a cryptic letter at their cabin from friend Bronson Alcott requesting Thoreau's aid for an escaped slave. Instructions are provided on Day 3 of late summer and players can choose to help this slave along the Underground Railroad or not. Either way, they will learn the consequences of their choice in a later letter.

The state will also send a notice to the cabin regarding unpaid taxes and warn players of the consequences of not paying their taxes. Should players go to town and pick up one of the arrowheads along the main road, they may find themselves thrown into jail for this non-payment of taxes, where they will find reference to some of the reasons that Thoreau was protesting these taxes – abolitionist posters, U.S.-Mexican War posters, and an edited draft of "Civil Disobedience."

Discussion questions: Why didn't Thoreau want to pay his poll taxes? What does he mean when he says: "Let your life be a counter-friction to stop the machine"? What were the issues that Thoreau was protesting by refusing to pay taxes?

Teacher Resource 1 ▸ p. 6

Walden, a game for the Classroom

Game Content: Early Fall

In the early fall, the natural elements in the game will begin to change more dramatically. The leaves change color, the berries are going out of season, and the world is getting cold and wet. Players will need to spend more effort on their shelter and on finding food and fuel. However, the world will also change in ways that are very beautiful. Paying attention to the "sublime" may be of particular focus if there is enough playing time for students to progress this far in the game.

There are several ways to seek inspiration in the game, based on Thoreau's *Walden* chapters "Reading," "Sounds," "Solitude," and "Visitors." These sources of inspiration need not be pursued actively and may simply be found along the way, but if players do not pursue them at all, they will lose inspiration and their game world will turn very dim, almost black and white. Also, many arrowheads can be found only when inspiration is high. Players can check their level of inspiration on the second page of their journal at any time.

On Reading: When players first meet Emerson, he will ask them to help him find several books that he has lost in the woods. Finding, reading, and returning these books to Emerson will provide inspiration. The books themselves are all short selections from texts that inspired Thoreau, Emerson and other Transcendentalist writers, including Homer's *Iliad*, the *Analects* of Confucius, the Hindu text *The Laws of Manu*, Plato's *Republic*, the *Bhagavad Gita*, the *Rig Veda*, and Emerson's own essay "Nature."

Discussion question: Thoreau writes "How many a man has a new era in his life from the reading of a book!" Is there a book that has changed your life or your way of thinking about life?

On Sounds: The game world is filled with the sounds of nature, but along the edges of the world will be found the sounds of civilization just far enough away for Thoreau to reflect on them and the changes that were coming in the world – the railroad, the wagons, the electric hum of the telegraph wires, the church bells and more.

Discussion questions: What sounds do you hear when you stop and listen to your world? What do they say about the world you live in?

On Solitude: The game world is filled with solitude, but there are some special places marked with cairns that are special solitude points. These remind us that solitude is not just the state of being alone but also recognizing that aloneness as an opportunity for self-reflection. If players follow Sophia's game, they will find all of the special solitude points in the woods, as well as Sophia's gift baskets, which will help them provide for themselves as the seasons change.

Teacher Resource 1 ▸ p. 7

Walden, a game for the Classroom

Discussion questions: Thoreau writes, "I never found the companion that was so companionable as solitude." How often are you alone in your life? What do you do when you're alone? Can you comfortably spend time with yourself, without connecting to others on your phone or other devices?

On Visitors: The game world is filled with both human and animal "visitors" to discover. The human visitors leave letters for players to find that give insight about Thoreau's relationships and interests. The animal visitors provide inspiration when a player gets close enough to them to inspect them. Some are very small, so search carefully, and others are very rare, so search the woods widely. Following an animal without startling it may also lead to other interesting areas and items.

Discussion questions: Thoreau writes: "Why do precisely these objects which we behold make a world? Why has man just these species of animals for his neighbors; as if nothing but a mouse could have filled this crevice?" What animals are there in your world? They may be very common, or they may be hard to find and see. Spend some time seeking out these animals around you.

Game Content: Late Fall

In the late fall section of the game, the leaves on the trees will turn brilliant colors. Now is the time to be sure to prepare for winter. Playing through late fall would mean playing a total of three hours of the game, so it is unlikely that you will have time to do so in class, unless you have the ability to save individual students' games and allow them to keep playing over several days. If you do, you will find that that the narrative elements of the game continue to develop over this time. These are found in the Thoreau home in town and the letters on Emerson's desk.

In the late fall, Thoreau receives a blow when his marriage proposal to Ellen Sewall is rejected. This story is true, as are the others that are told through the letters; however, for time purposes, we have compressed them into a shorter time frame. The story of Henry, his brother John, and Ellen Sewall may serve to humanize Thoreau for players, who may know him simply as a "hermit" who lived in the woods.

Emerson is also growing dissatisfied with Thoreau's work at this time, putting pressure on him to work more on his writing. If players have been progressing in the letter requests from publisher Horace Greeley, they may begin to reap the rewards of a writing career, as well as its costs. Or, if players have responded to requests from Harvard naturalist Louis Agassiz for local animal specimens, they may be searching the woods for rare species. Also, if they have been pursuing jobs as a surveyor, they may be exploring the farther reaches of the woods as they measure, parcel, and document its property lines.

Teacher Resource 1 ▸ p.8

Walden, a game for the Classroom

If you have had time to play the game this far, you and your students will realize that each player has pursued a very different course. By this time in the game, it is unlikely that students will have similar experiences; discussing why they have made the choices they did in the game may lead to you back to Thoreau's central experiment in living.

Discussion questions: Thoreau writes: "The true harvest of my daily life is somewhat as intangible and indescribable as the tints of morning or evening. It is a little star-dust caught, a segment of the rainbow which I have clutched." Why have you made the choices you have in life? What is the harvest of your daily life?

Game Content: Early Winter

As winter comes to the game, the landscape dramatically changes. With the beauty of the snow-covered woods and the frozen pond that invites the player to skate comes a greater challenge for survival. There are edible plants that survive into winter, and if players have bought extra food jars and wood storage in the general store, they may have been able to store up enough supplies to last a full season of winter. The town is filled with Christmas cheer and gifts that may also help the player get through the scarcity of this season.

In the narrative threads, prosperity and hope have come, with a published article and the sense that Thoreau's work as a writer is flourishing. So, however difficult the living may be in the woods, it is a time of hope.

Discussion questions: Thoreau writes: "I weathered some merry snow-storms, and spent some cheerful winter evenings by my fireside." He spends several chapters detailing his experiences during the winter, the sounds of the woods, the animals of winter, and the changes to nature around him. How does your environment change during the winter? What makes this time of year special to you?

Game Content: Mid-winter

With mid-winter in the game, several personal blows fall, with letters revealing the deaths of Thoreau's brother John, and Emerson's young son Waldo, a favorite of Thoreau's. Now the challenge of the winter may seem more difficult with these emotional experiences weighing heavily.

It will become more necessary for the players to know the edible plants of the woods, and to make sure that they have enough fuel and that their shelter and clothes are in good repair. At this time of year, they may find they have to rely on the general store for more items. It may be an interesting discussion to discern what is a "luxury" in the store, versus what is a "necessity."

Teacher Resource 1 ▸ p. 9

Walden, a game for the Classroom

Discussion question: Thoreau writes, "After a still winter night I awoke with the impression that some question had been put to me, which I had been endeavoring in vain to answer in my sleep, as what – how — when — where?" The tragedies revealed in this season of the game speak to some of the reasons that Thoreau went to the woods. He said in "Where I Lived and What I Live For" that he does not want, "when I came to die, [to] discover that I had not lived." What experiences in your life have sharpened your questions about the meaning of life, and how you will live it?

Game Content: Late winter

In the late winter of the game, the pond begins to break up and the snow is melting. In this season, there are only a very few edible plants and players must know the woods well to survive. Players who have chosen to respond to Bronson Alcott's request for help with the Underground Railroad may find this season presenting difficult challenges to face.

In the narrative, Thoreau's friends and family worry about his health and his reaction to John's and Waldo's deaths. Surviving this difficult period will take depth of character and perseverance.

Discussion question: During the winter, Thoreau studies the depth of Walden Pond and writes, "What if all ponds were shallow? Would it not react on the minds of men? I am thankful that this pond was made deep and pure for a symbol." Discuss the way that the pond itself stands as a symbol of both the depths of nature and of the human spirit.

Game Content: Spring

The coming of spring in the game will be a great relief to the players who have survived the deprivations and narrative blows of the long winter. As already noted, it is unlikely you will have time to play the game to this point unless you have a dedicated computer lab where students can save their games and play for several days or weeks. The entire game lasts six hours.

With the spring, the game world exhibits a lushness and greenness that we have yet to experience in this virtual Walden. The plants are all renewed, and the birds and other mammals have come out of winter hiding. The pond is green and filled with fish again. Players who have been responding to Dr. Agassiz's requests may be asked to search for rare turtle eggs along the fresh shores of the pond.

Walden, a game for the Classroom

Teacher Resource 1 ▸ p. 10

Now is the time to enjoy the woods with ease, picking wild strawberries, searching for hummingbirds, or finishing up any other tasks on Thoreau's "to do or not to do list." In "Spring" Thoreau revels in the first signs of the waking and thawing earth, "living poetry like the leaves of a tree."

Discussion question: Thoreau writes of spring, "A single gentle rain makes the grass many shades greener. So our prospects brighten on the influx of better thoughts." What things in your life brighten your thoughts and make you feel like better things are coming?

Conclusion

Thoreau writes, at the conclusion of "Spring," "Thus was my first year's life in the woods completed; and the second year was similar to it." He lived in the woods for two years, two months and two days before becoming a "sojourner in civilized life again." Why did he leave the woods? There were likely several reasons, including Emerson's request that he help with his family while Emerson was traveling abroad. But Thoreau says, "I left the woods for as good a reason as I went there. Perhaps I had several more lives to live, and could not spare any more time for that one."

In the game, players may choose to leave the woods at the end of spring, ending their experiment. Or, they may choose to remain in the woods for as long as they like, continuing their own time in the woods indefinitely.

Discussion questions: Thoreau writes: "I learned this, at least, by my experiment …. In proportion as he simplifies his life, the laws of the universe will appear less complex, and solitude will not be solitude, nor poverty poverty, nor weakness weakness." Why do you think that Thoreau left the woods? What did he learn from his experiment? What did you learn from playing his experiment yourself?

Handout 1

Playing Deliberately

Serious games are an innovative and exciting way to learn about a number of subjects. When you play any game, you first learn the rules of the game and then you try to master the challenges presented by the game. In a serious game, the challenges may be more than just winning. They may also include understanding the meaning of the rules themselves and what they represent.

The importance of the mechanics

The first question a deliberate player should ask is, "What do the rules of the game mean? What do the game "mechanics" represent?" Game rules are often abstractions of real world systems – the real estate market, warfare, physics simulations, etc. When serious game designers decide on the rules of their games, they are communicating ideas about what is important to know to play.

It's important to understand that the process of designing game rules is a kind of authorship. Just as writers or filmmakers have a point of view about the subject of their work, so too does a game designer. Becoming aware of the intentional or unintentional ideas that are communicated through the design of a game requires the deliberate focus of an attentive player. Passive playing – not thinking about the meaning of a game – does not lead to the kind of deliberate play we should be trying to develop.

We call the source of the game mechanics the "game designer." In practice, this might be the producer, the developer, the writer, the distributor—that is, whoever most controls and influences the game's meaning. Most of the time, it is the game designer who makes these decisions.

Beyond mechanics

In addition to the rules of the game, there are other aspects of the design that communicate meaning. There may be characters in the game, just as in a film or novel, whose motivations and backstory give context to their actions. There may also be a world design, art direction, or musical score that communicates how we are meant to feel about the activity in the game.

Ask yourself as you play, "What is my character trying to do? Why? What does it mean if my character does or does not succeed?" As you explore a game world, ask yourself, "Why is this area or object here? What does it communicate about the game's theme or story?"

Beyond fun

Often, when we think about games, we want to judge them on a single metric: how much "fun" they are. But what is fun? It can be many things to many different people. When we practice playing deliberately, we begin to understand that there are much deeper ways to judge games. We can learn to critique them based on the ideas they represent rather than just the momentary exhilaration they give us.

When you play deliberately, you will ask yourself, "What kinds of activities have I done within this game? Why did I make the choices that I did in the game? What was the meaning of those choices in the context of the game? What was the game designer trying to communicate by putting these kinds of choices in the game?"

Handout 2 ▸ p.1

Playing "Early Summer"

"Early Summer" in *Walden, a game* comprises the first three game "days" that run 15 minutes each. It will take approximately 45 minutes of playing time to complete this first "season" of the game. As you play, pay attention to how the rules of the game are taught and how the premise of the game is established. Note the use of video, voice-overs, tutorials and world-building to communicate what the game is about.

When we choose "New Game," the **title screen** slides away and we are shown **cinematic** with **voice-over**. The voice, Thoreau, states his reasons for going to the woods to "live deliberately." At the end of this video, we are put into the game world near Thoreau's half-finished cabin. The game **tutorials** will explain how to move and look and interact in the game. Before moving or doing anything else, however, use the mouse to look around at the **virtual world** you are in. Where are you? What colors do you see? What sounds do you hear? What is the **game designer** telling you about Thoreau's first day in the woods by the design of this world?

The first tutorial has likely cued us by now to begin our game by picking up the first arrowhead, ahead of us on a rock. The arrowhead **mechanic** is one of the first **game systems** to be introduced. This collection mechanic involves picking up arrowheads in order to learn more about Thoreau's experiences and thoughts. Each time we pick up an arrowhead, the voice-over we hear from Thoreau will be added to our in-game journal.

As we approach the second arrowhead, on a smaller rock near the cabin, the tutorials will explain that everything in the **game world** can be inspected by right-clicking. The inspection mechanic will reveal more information about trees, plants and other objects that Thoreau interacted with in his world, including a quote. Each time we inspect a new object, or an object that has changed over time, the new quote will also be added to our in-game journal. This inspection mechanic also reveals whether or not you can interact with an object; for example, whether it is a plant that is ripe and ready to be picked or a letter that can be read.

Near the cabin we will find a workbench. Clicking on the workbench will bring us into a **mini-game**. This mini-game involves hammering to build or repair our shelter. The mini-game has a special **user interface** that requires us to perform a hammering gesture. Each time we perform the gesture correctly, we add to our shelter **state** but we also use **energy** to perform the task. As we work, we will receive updates letting us know how far along we are in completing the shelter. If we work too hard at the task, however, our energy will drop and we may faint. If we stop working, our energy will slowly be restored. If we faint, we will **respawn** in our cabin or at the nearest campsite or home.

When we respawn after fainting, we will find that the world of the game is greyed out. This is because our inspiration is low. Inspiration, like energy, is a game state. In *Walden, a game*, we are given visual and audio **feedback** about our level of inspiration. When we are low on inspiration, the world will be grey and dull, and the music will be minimal. When we increase our inspiration, the world will become more colorful and more layers of music will be heard. Additional feedback is available in the in-game journal; on page two we can check the state of our inspiration, as well as the state of our basic needs such as food, fuel, shelter and clothing.

Handout 2 ▸ p.2

Playing "Early Summer"

Around our cabin (on the stoop and inside on the bed and table) we will find letters that can be read and opened. These introduce **characters** such as Thoreau's sister Sophia, his friend Bronson Alcott, and Louis Agassiz' assistant, James Elliot Cabot. Each of these characters, as well as others, has a different relationship with Thoreau, which will be revealed through future letters and interactions.

On this first day of the game, we are free to explore the woods. Some things that we might find include ripe berries that can be picked, a book of Homer that Thoreau has brought with him to the woods, Thoreau's bean field, and the pond itself. Down at the edge of the pond, we will find a perfect spot for fishing, if we can find our fishing rod. Finding the rod is the first **quest** of the game.

Opening the game journal to the first page will show us a **map** that indicates where we are and the location of things like our cabin and other important landmarks we've discovered. At this point, the map will indicate with an "X" the location of this first quest item. As we follow the edge of the pond to find our fishing rod, we may also continue along the north shore to discover more areas and new interactions there. We can see from the map that the world of the game is quite large, and we have only seen a very small fraction of it so far. We can notice the careful **world building** as we explore that gives us the sense of what the real-world Walden Pond might have been like in 1845. We can investigate the multiple levels of detail in world – from tiny creatures in the pond to the distant stars in the night sky.

As we explore the woods, twilight will come and then night will fall. This day-night cycle is part of the nature **simulation** underlying the game world. At the end of each night in the game, we can review all the entries in our journal, which will grow over time, forming a record of how we lived each day in this virtual Walden. Thoreau used his own journal as the basis for writing the book *Walden*. As players, we may want to take our own notes for later writing or discussion.

The focus of this first season is on the first two chapters of the book *Walden*: "Economy" and "Where I Lived, and What I Lived For." One of the **challenges** that the game designer has set for us as we play these first few days of the game is how to meet our basic needs for food, fuel, shelter and clothing. How are these basic needs illustrated in the game? What other needs do we have in life beyond these basic survival needs? How does the game illustrate the need to address more than just our basic needs in life?

In most games, the **objective** is made clear up front, but in an **open world** such as *Walden, a game*,, the objective purposefully is left up to the player. Thoreau set out to live a self-reliant life in the woods, but as players, we can choose how we want to live. As we each explore the world, we will find opportunities to follow different paths. The game designer has developed these many possible choices in the game to create a sense of **emergence**. As each of us plays, we will create a different possible outcome for Thoreau's experiment.

Handout 3 lists many familiar words, which have special uses or meanings in game design. Becoming familiar with them will help you express yourself when you discuss or write about this game, as well as other games in the future.

Handout 3 ▸ p.1

Glossary of Game Design Terms

Achievements – A system of awards for performing certain feats within the game. Also called trophies or badges.

AI (Artificial Intelligence) – Algorithmic methods for programming "intelligent" actions as part of the game system. For example, AI controlled characters may seem to have situational knowledge of changes to their environment.

Ambience – The background sounds of an environment, which give a sense of place to a game world.

Audio Design – The creation of the audio tracks for the game world, which may include ambience, voice-over, sound effects, and music.

Bonus – A special reward that may temporarily power-up the player's abilities or give the player extra points.

Camera – A virtual viewpoint within a game engine that gives players a vantage on the game, as would a real-world camera. A game camera may be attached to the player's character, as in a first-person camera, or it may have separate camera controls allowing the player or the game to change its angle of view.

Challenge (n) – The way in which the game constrains players from accomplishing their goals in order to engage them in play.

Choice – The most basic interaction of a game. Choices can range from minor (having little or no impact on the game) to critical (changing the outcome of the game). Well-known game designer Sid Meier (*Civilization*), has said that games consist of "a series of interesting choices."

Cinematic (n) – A non-interactive scene presented between game stages to convey elements of the storyline. These can be rendered live from within the game engine or by pre-rendered video clips.

Color Palette – The range of colors in a particular scene. Often used to communicate mood or emotional change.

Controls – The methods by which players interact with the game, usually through a piece of hardware, such as a keyboard and mouse, touch screen, or game controller. However, newer methods include voice and gesture control as well.

Economy – A system of currency, resources, barter or trade within a game world that allows players to exchange in game values or items with each other or with the game system.

Emergence – The quality of game systems, when put into action by players, to produce multiple and unexpected outcomes.

Energy – A typical player statistic that models real-world health.

Feedback (n) – The response returned by the game system to player input. This may be through aural, visual, haptic, or other means.

First-Person – A genre of video games where the player experiences the game from the first- person perspective.

Game designer – The person (or persons) responsible for creating the rules of the game. The game designer's goal is to create rules that, when put into action by the players, result in an engaging and meaningful experience.

Handout 3 ▸ p.2

Glossary of Game Design Terms

Game mechanic – An overarching term for how particular aspects of a game system function within the rules. Typical game mechanics include combat, inventory, crafting, scoring and exploration. Game mechanics are often abstractions of real world systems that give the game experience meaning.

Game state – A variable or set of variables that describes the current situation of play; for example, a score set to 11 or an item currently powered to 4. The full game state for video games is typically made up of many variables.

Game system – The system of rules and procedures that define the play of a game.

Game world – The fictional or non-fictional setting of a game, often defined by the layout of the world within a game engine and driven by any underlying environmental or atmospheric systems to give a sense of world dynamics.

Genre – An identification of games by their primary mechanics. For example, role-playing games, first-person shooters, adventure games, or puzzle games.

Graphics – The visual elements of a game. Often distinguished by whether they are two-dimensional (2D) or three-dimensional (3D).

Lighting (n) – The virtual light sources within a game that illuminate game objects. The engine interprets the color, strength, direction, and quality of the light as a part of the rendering process for the game world.

Map (n) – A map may either be the actual layout of a game level or an interface element that shows a representation of that layout, along with important landmarks such as the player position.

Mini-game – A game within a game; often used a structure for gaining resources.

Multiplayer – A game that allows multiple players to play at once, either in head-to-head challenges or in collaboration with each other.

Music Score – The music track for the game. This track may be interactive or non-interactive. Many games use interactive cues to change the score based on player actions or game events.

Non-player character (NPC) – A character in the game that is not controlled by a player. Non-player characters, while not directly controllable, may still be interactive. They are often used to provide information or advance story points.

Objective (n) – What players are challenged to accomplish or what they choose to accomplish within the game system.

Open world – A game world that the player may freely traverse, rather than being restricted to a pre-defined or linear path.

Player character – A character controlled by a player in game. Often the protagonist of the storyline.

Polygons – The building blocks of computer graphics. All objects in 3D game worlds are made up of polygon meshes, which are then wrapped with materials, allowing the engine to render realistic (or non-realistic) game graphics.

Procedural generation – When the game algorithmically creates game elements or situations, such as characters, storylines or world objects.

Handout 3 ▸ p.3

Glossary of Game Design Terms

Quest – An objective-based activity created for the purpose of story or character-level advancement. Quests may follow many common structures, such as gathering or delivering items or completing tasks.

Rendering – The digital processing of polygon meshes, materials lighting, and shading into images that appear solid and three-dimensional.

Resources – Game objects that have value in the game because of their utility and scarcity.

Respawn (v) – The reappearance of a player or character in a game world after having been killed or otherwise removed from play.

Resolution (n) – The quality of detail of a game's graphics as measured in horizontal and vertical pixels. For example, Full High Definition (Full HD) resolution is 1920 x 1080 pixels, while Ultra High Definition (Ultra HD) is 3840 x 2160 pixels. Rendering in higher resolutions requires greater graphics processing power.

Simulation (n) – A computer game that models a real-world situation or activity. The level of abstraction of a simulation will affect the realism of its outcome, as will the algorithms underlying the simulation.

Single-player – A game that can have only one player at a time.

Sound Effects – Audio elements that are distinct from the background ambience, dialogue or voice-over; they may be linked to specific visual cues. Sound effects may be in a world, such as the sound of an ax chopping or a dog barking, or they may be part of the user interface, such as an error sound or selection sound.

Storyline – The narrative action of a game, which may or may not be impacted by the player's choices during gameplay.

Textures (n) – The surface detail added to a polygon mesh, which aids the game in rendering realistic imagery.

Third Person — A camera point of view that lets players see the character they are controlling.

Title screen – The main interface for the game, which usually lets players start a game, load a saved game, or access other areas of the software.

Tutorial – An in-game prompt giving information on how to use the game controls or other features.

Upgrade – An opportunity to make game items more powerful or valuable, such as an upgrade to a weapon or structure.

User interface – The visual or other elements of the game that communicate the state of the game, accept input, and return feedback to the player.

Virtual World – A computer simulation of a world. Virtual worlds may be simply visual simulations, or they may include more interactive elements, such as weather systems, city simulations, economies, or other emergent aspects that add to the depth and believability of their presentation.

Voice-over (VO) – Spoken dialogue in the game, either from an off-screen narrator or from on-screen animated characters.

Handout 4 ▸ p.1

Assignments

Playing *Walden, a game* will likely be a very different experience from playing other video games. The "action" of this game is not direct conflict, but rather an experience of living Thoreau's ideas through a game simulation. In this game, the game designer has presented an interpretation of how Thoreau lived, and the challenges he faced balancing his time in filling his basic needs, responding to requests from family, friends and colleagues, and seeking inspiration in nature.

You should have notes on the quotes you found in the game, the **mechanics** you engaged with, the **characters** you met or corresponded with, and any other experiences that captured your interest. If you didn't take notes, you might want to go into your saved game and review the quotes in your in-game journal to remind you of your experiences in the game. If you are still playing, a good time to take notes is at the end of each game day, when the **user interface** allows you time to reflect on the day.

If you have been able to take your time with the game and play deliberately, you will be in a good position to think critically about how games can engage with serious subjects.

Working individually or in teams, choose one of the following topics to report on in class:

- Discuss how the **game system** models Thoreau's experiment in living simply. What activities in the game reflect Thoreau's daily experience? How does the **game world** change over the seasons and how does that change affect the challenge of living in nature?
- What does Thoreau mean by the words, "necessary of life"? What might he consider a luxury or "so-called comforts" of life? Discuss the way that you lived in the game: Did you buy anything at the store? If so, was it a luxury or a necessity? Why do you think the **game designer** included a store **mechanic** in the game if Thoreau's goal was to "live simply in nature?" How does this change the player experience?
- How does the underlying **economy** in the game relate to what Thoreau is trying to tell us about the meaning of how we spend our time on Earth? For example, the **game designer** has created a **system** where time is a scarce **resource** and it is impossible to get everything on our in-game "to do" list done. Discuss what this design decision communicates about the nature of human life and how our **choices** relate to our values.
- Listen carefully to the sounds of the game world. What do you hear when you are in different places or different times? How is the **audio designer** using **ambience**, **sound effects** and **music score** to give a sense of Thoreau's world and the time in which he lived?

Handout 4 ▸ p.2

Assignments

- Choose one or more plants, trees, or animals in the **virtual world** to inspect closely every season throughout an in-game year. Describe the changes that the plants or trees go through, including Thoreau's quotes about them. Discuss what the **world design** communicates about Thoreau's experience in each season. How does each season make you feel as a player? Why does Thoreau begin his experiment in summer and end in spring?
- Follow one of these **quest** lines all of the way through the game: Sophia's poems, Emerson's books, Agassiz's animal specimens, Greeley's manuscripts, Alcott's Underground Railroad deliveries, or the survey jobs. Discuss the story or theme that emerges as you complete these quests. What **choices** are you being asked to make? What personal, social, or historical aspects of Thoreau's life are you learning about? What do you find out about Thoreau and his life in this quest that you didn't know before? Why did the **game designer** include this quest in the game?

Henry David Thoreau: A Life in Context

Enduring Understandings

- The times in which we live influence the way we see ourselves and the world.
- Simple acts of writing can inspire major historical changes and movements.
- The events leading up to the Civil War caused the United States to question its identity and place in the world.
- Thoreau represents someone who needed solitude and simplicity to understand himself and his place in society.

Essential Questions

- What inspired Thoreau and his writing?
- How did Thoreau inspire others?
- Are Thoreau's thoughts and philosophy still relevant today?

Notes to the Teacher

Henry David Thoreau (1817 – 1862) was born in Concord, Massachusetts and lived near there for most of his life. As a young man, he was meticulous, focusing on his studies and earning a place at Harvard University. Despite both health and financial struggles while in school, Thoreau was in the top half of his class upon graduating from Harvard in 1837. Not interested in becoming a doctor, lawyer, or minister (the three most common professions after attending such a university at that time), Thoreau tried his hand at teaching. He found the traditional classroom setting too restrictive and eventually left his traditional classroom to begin a school with his older brother John.

Their academy rejected corporal punishment of students and encouraged learning through experience and inspiration rather than rote routine. Unfortunately, John contracted tetanus after cutting himself on a razor and passed away at age 26. Thoreau was unable to continue the school without his beloved brother,

In Concord, Massachusetts, Thoreau was greatly influenced by Ralph Waldo Emerson and the ideas of Transcendentalism. This new philosophy focused on the importance of the individual; it emphasized that each of us contains a divine spark and we are obligated to learn and discover what our true nature has in store for us. A group of well-educated intellectuals gathered around Emerson. They read Hindu and Buddhist scriptures and came to believe in universal truths about human nature; they wrote essays and poetry explicating their ideas. Many became involved in social reform movements as diverse as the abolition of slavery, the re-invention of the American educational system, the contemporary feminist movement, and even the Italian revolution of 1848.

Emerson encouraged Thoreau to explore his own nature in solitude and to keep a journal of this endeavor. This journal became a twenty-volume diary of over two million words, as well as numerous articles, books, and essays over a relatively short career.

Having spent his time writing, working for his father in the family pencil factory, and performing numerous odd jobs like surveying, Thoreau decided to immerse himself in solitude and accepted Emerson's invitation to live at Walden Pond. He built a one-room structure measuring 10 feet by 15 feet by 8 feet, moved in on July 4, 1845, and began to observe not only the world around him, but also the world within himself.

The first part of this lesson reviews the historical time period in which Thoreau lived and looks at major events in Thoreau's life on a parallel timeline on **Handout 1** to understand how Thoreau's philosophy emerged from this period in history. Next, students analyze quotes from Thoreau and use them to understand what Thoreau believed to be true about himself, others, and the world we share. **Handout 2** contains a number of Thoreau's famous quotes. Students should read the quotes and in the space provided write down what the quote means in their own words, as well as their ideas about which events may have influenced his statement. Answers will be subjective, but they should show thought about how Thoreau was influenced by the times in which he lived. You may wish to have students complete this for homework.

Students then have the opportunity to play the Walden game. They will need access to the game software, your assistance in beginning the activity, and a substantial amount of time, as well as materials to complete journals. Please refer to Teacher Resource 1 in Lesson 1 for technical requirements and an outline of the game structure and content, including questions that may help frame each segment (or season) of the game with respect to Thoreau's writings. Depending on how much time you can devote to playing the game in class, you may want to assign specific portions of the text to supplement the game play.

Students next read the *New York Times* article, "Thoreau's Wilderness Legacy: Beyond the Shores of Walden Pond" at https://www.nytimes.com/2017/07/07/books/review/douglas-brinkley-thoreaus-wilderness-legacy-walden-pond.html?mcubz=1_to learn about environmentalists influenced by Thoreau's work. They then have an opportunity to research how Thoreau's influence affected one of these environmentalists. Students will complete the assignment by explaining which quote from **Handout 2** they think might have affected the person they have researched. (You may wish to have students complete this in something other than through formal writing. A poster, poem, collage, or other presentation could easily be substituted to highlight the student's understanding of both the quote and the chosen ecologist.)

Some helpful sources include:

- Thoreau Biography
  http://transcendentalism-legacy.tamu.edu/authors/thoreau/
- The text of *Walden*
  http://transcendentalism-legacy.tamu.edu/authors/thoreau/walden/index.html
- The text of "Civil Disobedience"
  http://transcendentalism-legacy.tamu.edu/authors/thoreau/civiltext.html
- Timeline of U.S. History 1800-1860
  http://nationalhumanitiescenter.org/pds/triumphnationalism/timeline.pdf

COMMON CORE STANDARDS ADDRESSED BY THIS LESSON

CCSS.ELA-LITERACY.RH.9-10.1
Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.

CCSS.ELA-LITERACY.RH.9-10.2
Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.

CCSS.ELA-LITERACY.RH.9-10.3
Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

CCSS.ELA-LITERACY.RH.9-10.4
Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.

CCSS.ELA-LITERACY.RH.9-10.9
Compare and contrast treatments of the same topic in several primary and secondary sources.

Duration of lesson

2–5 class periods, depending on the amount of time available to work outside of the classroom

Assessments

Written responses to **HANDOUT 2**

Class discussion of Thoreau quotes

Essay, presentation, or other choice of analysis of quotes and ecologist

Materials needed

Access to the Internet for each student

Projector

Computer access to or photocopies of a *New York Times* article "Thoreau's Wilderness Legacy: Beyond the Shores of Walden Pond" at https://www.nytimes.com/2017/07/07/books/review/douglas-brinkley-thoreaus-wilderness-legacy-walden-pond.html?mcubz=1

Copies of **HANDOUTS 1** and **2**

Procedure

Part 1: Thoreau's life in context

1. Begin class with a chalk-talk. Before students arrive, write "1800 – 1864" at the top of your board. Once students arrive, ask them to take out a piece of paper. Give them a few minutes to write down everything they remember happening during this time period in U.S. history without using any resources.

2. At the end of the time, divide the students into four groups and assign them different lengths of time. (Group 1 – 1800-1815, Group 2 – 1816 – 1835, Group 3 – 1835 – 1850, Group 4 – 1850 – 1864) Ask them to then use their own knowledge and any available resources (Internet, textbooks, etc.) to add political, social, economic, religious, philosophical, and other events they come across for their time period in order on the board. Allow about 15 minutes for this exercise. (If you have a very large class, it might be better to have students work in small groups to write their information on large paper. Then have them tape their sheets of paper to the board in chronological order before discussing as a group.) Once they have finished, review the various time periods and allow the students to add more events if they realize something important was missed.

3. If students have not already mentioned Thoreau and Transcendentalism, add them to the timeline. Explain Transcendentalism and introduce Thoreau, using the information from Notes to the Teacher. Tell students that they will soon be playing a video game that reflects Thoreau's experience at Walden pond in Concord, Massachusetts. Explain that before they play the game, it is important to consider the events happening around Thoreau and how these events may have influenced his writing and life philosophy.

4. Distribute **Handout 1: A Timeline for Henry David Thoreau**. Have students identify major events from the history timeline that might have affected Thoreau at critical points in his life. (Be sure the discussion includes the Industrial Revolution, the Mexican War, the Fugitive Slave Act of 1850, the abolitionist movement, and John Brown's attack at Harper's Ferry in October, 1859.)

5. Distribute **Handout 2: In Thoreau's Words.** Have students work individually or in groups to paraphrase the quotations and to identify key events that might have inspired them. (Some possible events are his move to Walden Pond; the Mexican War, which Thoreau thought was being fought to extend slavery territory; federal laws upholding slavery; his participation in the Concord group of Transcendentalists.) Allow them to finish for homework if necessary.

Part 2: Playing and discussing *Walden, a game*

1. Collect **Handout 2** responses and review them briefly.

2. Introduce the game *Walden* and ask students what they would expect in a game built around the story of Thoreau's sojourn at Walden Pond.

3. Help students to access the game *Walden* on the computer and allow at least 45 minutes to play through the first season, "Early Summer."

4. When students have finished playing "Early Summer," debrief them on what they learned and their reactions to the game. You will find some questions that may be used in the **Teacher Resource** for Lesson 1.

5. If you have time to play the game over several class meetings, you may have students save their games and return to playing on the same computers another day. The game in its entirety is six hours long. You may point students toward pertinent aspects of the game as described in Game Structure and Content on the **Teacher Resource**.

6. Discuss the game and its relationship to Thoreau's experiment in living at Walden Pond. What did students learn about his life there in their initial session with the game? How did he sustain himself in the woods? What kinds of things did he consider the "necessities of life"? Why had he gone there? What else did the students discover as they explored the woods in the game?

Part 3: Thoreau's lasting influence

1. Begin class by handing out copies of the *New York Times* article, "Thoreau's Wilderness Legacy, Beyond the Shores of Walden Pond," or have students access it on the computer.

2. Have the students read the article on their own or aloud. Once they have finished the article, return their copies of **Handout 2** to them.

3. Ask the students to select a person who interests them, other than Thoreau, mentioned in the article. Persons to choose from:

Barry Lopez	Gary Snyder
T.C. Boyle	Louise Erdrich
Terry Tempest Williams	John Muir
Bill McKibben	Rose Kennedy
Wendell Berry	Henry Beston
David Quammen	Caroline Bates
Edward Hoagland	Rachel Carson
Carl Hiaasen	Howard Zahniser
Rick Bass	David Brower

4. Have students research their subjects to understand about how each was influenced by Thoreau. Then have them determine which of the quotes on **Handout 2** they believe would have resonated most with their selected person.

5. Either in class or for homework, have the students write two or three paragraphs explaining why their chosen person would have been most influenced by this quote. Remind students to include the context in which the person lived or lives. Each complete response should include information about the researched person, as well as well as a clear analysis of why and how this quote may have influenced that person's life and work.

Extension Activities

1. Have the students write about how the game depicted Thoreau's life at Walden Pond. How do games convey ideas about life through what players are asked to do in them? What other games depict historical situations? What other historical figures or situations might make a good game? Have students propose games about aspects of history they are interested in. If there is time, you might also have them create board games or paper prototypes of their ideas. Make sure they consider how the game system supports the ideas they want to convey.

2. Have the students look at the quotes from **Handout 2** again. Are there any that apply today, well over a century later? Break the class into small groups to discuss how relevant they are in our modern society.

3. Have students read and analyze Thoreau's essay "On Civil Disobedience" at http://transcendentalism-legacy.tamu.edu/authors/thoreau/civiltext.html. Then ask students to research leaders in the modern world who have been influenced by Thoreau in politics rather than his concern for nature. In particular, students should look at Mohandas Gandhi and Martin Luther King. The essay also influenced Supreme Court Justice William O. Douglas, the Russian novelist Leo Tolstoy, anarchist Emma Goldman, and a number of anti-Nazi and anti-Vietnam resisters.

4. You may also wish to give students the opportunity to discuss their ideas about whether civil disobedience is acceptable and/or useful today, with groups like Black Lives Matter, the protesters of the Dakota Access Pipeline, and sit-ins by disability activists in the halls of Congress.

Handout 1

A Timeline for Henry David Thoreau

July 12, 1817	David Henry Thoreau is born in Concord, Massachusetts. (His first names are later switched.)
1823	Thoreau's father takes over his brother's pencil factory in Concord. (Thoreau worked at the pencil factory on and off during his lifetime and even invented a new and superior kind of pencil.)
1833	Thoreau enrolls at Harvard University, where he takes many more courses than required.
1837	Thoreau meets Emerson when the latter gives his speech "The American Scholar" at Harvard. They become friends and Thoreau joins the Transcendentalist group around Emerson.
1838	Thoreau begins teaching; Louisa May Alcott is one of his students.
1840	Thoreau begins to contribute to the new Transcendentalist magazine, *The Dial*.
1845–47	Thoreau lives at Walden Pond and begins to write his memoir of the experience.
1848	Thoreau spends a night in jail after refusing to pay his taxes. (A relative bails him out.) He writes his essay "On Civil Disobedience."
1849	Thoreau publishes *A Week on the Concord and Merrimack Rivers* about a rafting trip with his brother, who is recently deceased. The book is unsuccessful and sells few copies.
1850	Thoreau hides fugitive slaves at his home in Concord.
1854	*Walden* is published and is well-received by the public.
1859	Thoreau writes a speech in defense of the captured abolitionist John Brown.
1862	Thoreau dies of tuberculosis at age 44. Ralph Waldo Emerson gives his eulogy.
1864	Thoreau's book *The Maine Woods* is published after his death.

Handout 2 ▸ p.1

In Thoreau's Words

Directions:

Read each the following quotes and paraphrase it in your own words. Indicate which event or events in Thoreau's life could have led to each one.

1. Let your life be a counter-friction to stop the machine. What I have to do is to see, at any rate, that I do not lend myself to the wrong which I condemn. – *Civil Disobedience*

2. Unjust laws exist: shall we be content to obey them, or shall we endeavor to amend them, and obey them until we have succeeded, or shall we transgress them at once? Men, generally, under such a government as this, think that they ought to wait until they have persuaded the majority to alter them. They think that, if they should resist, the remedy would be worse than the evil. But it is the fault of the government itself that the remedy is worse than the evil. It makes it worse. Why is it not more apt to anticipate and provide for reform? Why does it not cherish its wise minority? Why does it cry and resist before it is hurt? Why does it not encourage its citizens to point out its faults, and do better than it would have them? Why does it always crucify Christ and excommunicate Copernicus and Luther, and pronounce Washington and Franklin rebels? – *Civil Disobedience*

Handout 2 ▸ P.2

In Thoreau's Words

3. As long as possible live free and uncommitted. It makes but little difference whether you are committed to a farm or the county jail. – *Walden*, Ch. 2 "Where I Lived, and What I Lived for"

4. Our inventions are wont to be pretty toys, which distract our attention from serious things. They are but improved means to an unimproved end, an end which it was already but too easy to arrive at… – *Walden*, Ch. 1 "Economy"

5. It is never too late to give up our prejudices. No way of thinking or doing, however ancient, can be trusted without proof. What everybody echoes or in silence passes by as true to-day may turn out to be falsehood to-morrow, mere smoke of opinion, which some had trusted for a cloud that would sprinkle fertilizing rain on their fields. What old people say you cannot do, you try and find that you can. Old deeds for old people, and new deeds for new. – *Walden*, Ch. 1 "Economy"

Handout 2 ▸ p.3 In Thoreau's Words

6. And I am sure that I never read any memorable news in a newspaper. If we read of one man robbed, or murdered, or killed by accident, or one house burned, or one vessel wrecked, or one steamboat blown up, or one cow run over on the Western Railroad, or one mad dog killed, or one lot of grasshoppers in the winter, - we need never read of another. One is enough. If you are acquainted with the principle, what do you care for a myriad instances and applications? – *Walden*, Ch. 2 "Where I Lived, and What I Lived for"

7. I went to the woods because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived. – *Walden*, Ch. 2 "Where I Lived, and What I Lived for"

8. I desire that there may be as many different persons in the world as possible; but I would have each one be very careful to find out and pursue his own way, and not his father's or his mother's or his neighbor's instead. The youth may build or plant or sail, only let him not be hindered from doing that which he tells me he would like to do. – *Walden*, Ch.1 "Economy"

Handout 2 ▸ P.4

In Thoreau's Words

9. So thoroughly and sincerely are we compelled to live, reverencing our life, and denying the possibility of change. This is the only way, we say; but there are as many ways as there can be drawn radii from one centre…Confucius said, "To know that we know what we know, and that we do not know what we do not know, that is true knowledge." – *Walden*, Ch. 1 "Economy"

The Hudson River Painters

"Nature has spread for us a rich and delightful banquet. Shall we turn from it? We are still in Eden; the wall that shuts us out is our own ignorance and folly."

— Thomas Cole

Enduring Understandings

- Thoreau moved to the woods of Walden Pond to learn to live deliberately, and Thomas Cole left England's industrialism to experience the wild and open New World.
- The Hudson River School Painters (1825-late 19th century) were the nation's first official art movement.
- The movement, led by Thomas Cole, included such painters as Albert Bierstadt, Asher Durand, Frederic Church, Frederick Kensett, and Sanford Robinson Gifford
- The popularity of the paintings increased tourism in the area, supporting the expansion of the railroad and leading to population growth and then industrialization in the region, eventually creating a loss of nature.

Essential Questions

- What is the relationship between the human and natural world presented in these works of art from the Hudson River School?
- How did these artists use viewpoint, scale, and detail to communicate ideas?
- How did the Hudson River School artists use the principles of light and color to realistically portray atmospheric perspective, water, and sky?
- What features of a Hudson River School landscape painting provide information about cultural and historical context?

Notes to the Teacher

In colonial America and the early Republic, most successful painters had wealthy patrons who commissioned them to make portraits of their families and, occasionally, of well-known historical figures. With the invention of the daguerreotype, an early kind of photograph, the demand for painted portraits decreased after 1840.

About the same time, several other developments occurred in the first few decades of the 19th century that would also influence the choice of subject for painters. The first art museums opened in cities, providing access to art for middle-class citizens. The first grand resorts opened in the Catskills, a range of mountains in upstate New York, providing access to striking views of nature for city dwellers on vacation. The novels of James Fenimore Cooper, set in the wilderness and glorifying wilderness life, became popular with a middle-class public. The Concord group of intellectuals led by Ralph Waldo Emerson were exploring the divine qualities of nature with their Transcendental writings; Henry David Thoreau was recording nature in his own way from his cabin at Walden Pond. And British-born painter Thomas Cole was commissioned to produce a painting called "The Falls of the Kaaterskill." [For more on this painting, see http://www.explorethomascole.org/tour/items/14/zoom.]

Cole was the artistic founder of the Hudson River School, a group of artists whose works reflect strong interest in and appreciation of the American wilderness. Among them the best-known were Asher Durand, Frederic Church, and Albert Bierstadt, but there were many others, including some women painters. Eventually their paintings celebrated not only the Hudson River Valley but also other wilderness areas including the American West and South America.

The Hudson River School paintings tend to share certain characteristics. They portray a nature that is majestic, even overwhelming. Human figures are either tiny in comparison to nature or missing from the scene altogether. The painters experimented with ways to portray the luminous effect of light on water and sky. The artists were Romantics, idealizing nature and turning away from the increasingly industrialized cities. They were also nationalists, showing pride in the great vistas that the American continent offered.

Ironically, these paintings may have been one catalyst for population growth in upper New York State, with increasing urbanization, greater industrialization, and an extensive development of railroads, leading to an eventual lessening of the contact with nature itself.

There are numerous resources available for you to locate many of the Hudson River School paintings to show your students. The New York Metropolitan Museum website at http://www.metmuseum.org is an excellent resource. The website at http://www.hudsonriverschool.org/ takes students on a virtual tour of the areas that many of the artists painted. The students will be able to compare the geography to the painting, thereby increasing their understanding of the painters' work. A comprehensive list of artists can be found at https://en.wikipedia.org/wiki/List_of_Hudson_River_School_artists. A somewhat idiosyncratic discussion of the school with links to images by its best-known and lesser-known members can be found at http://www.artchive.com/artchive/hudsonriver.html. If you belong to Pinterest, a search there for "Hudson River School painters" will yield many examples.

In the first part of this lesson, students look at a selection of paintings by Hudson River School artists in a slideshow and in prints. Before the lesson, print out in color and as large as possible a selection of paintings from the various artists of the school. Students take notes on the history of the Hudson River School. Then they work in groups to analyze one of the paintings.

For the second part of the lesson, prepare to take the class outside to observe the nature around them. If the school is not located in an area where this is feasible, you can use the game *Walden* as the basis for a virtual fieldtrip to the woods. Give your students enough time outside or in the game to record sufficient information about the landscape for their project.

In Part 3, students will complete an art project that uses Hudson River School painters as a model. If your students have not previously used watercolor pencils, oil pastels or acrylic paint (depending on what you choose), you will need to do a demonstration before the final process is started. Circulate during the painting session to help students as they work. A rubric for an evaluation of student participation in the lesson is available on **Handout 2**.

Visual Arts standards addressed by this lesson:

Level III (Grades 9–12)

NA-VA.9-12.1 Understanding and applying media, techniques, and processes.
Students conceive and create works of visual art that demonstrate an understanding of how the communication of their ideas relates to the media, techniques, and processes they use

NA-VA.9-12.3 Choosing and evaluating a range of subject matter, symbols, and ideas.
Students reflect on how artworks differ visually, spatially, temporally, and functionally, and describe how these are related to history and culture.

NA-VA.9-12.5 Reflecting upon and assessing the characteristics and merits of their work and the work of others.
Students reflect analytically on various interpretations as a means for understanding and evaluating works of visual art

Duration of lesson

Four to five 60-minute sessions

Assessment

Rubric (See **HANDOUT 2**)

Materials Needed

PowerPoint on Hudson River School (available as a PDF with this lesson from www.journeysinfilm.org)

Map showing New York State

Handouts 1 and 2

Printouts of Hudson River artists' paintings

Pencils

Erasers

Access to the game software for each student

Ability to take and print screenshots from the game software

Slideshow of game landscape screenshots available as a PDF with this lesson from www.journeysinfilm.org

9" x 12" or 12" x 18" drawing paper (1 sheet per student)

Watercolor paper, canvas sheets, or canvas panels (1 per student)

Acrylics, watercolor pencils, oil pastels or watercolor oil pastels

Brushes of various sizes

Procedure

Part 1: Introduction to the Hudson River School

1. Explain to students that Thoreau and other nineteenth century writers were not the only ones with a keen interest in nature. Artists at the time were also focusing on nature, especially on wilderness scenes.

2. Show slides 1 through 6 from the PowerPoint downloaded from the www.journeysinfilm.org website. Allow ample time for students to absorb what they see in each of the paintings. Ask students to write their observations about the paintings. Ask questions to help them clarify their observations:

   - What seems to be the common subject matter of these paintings?
   - What do you notice about the painters' techniques?
   - What have the painters omitted?
   - How do the painters seem to feel about their subject matter?
   - What seems to be the focal point of each painting?

3. Show slide 7 and explain that students are going to learn about a group of artists called the Hudson River School. Point out on a map where the Hudson River is and its propinquity to New York City.

4. Tell students you would like them to take notes on the next three slides. Discuss the information on the slides with students along the way and answer any questions. You may wish to use information from Notes to the Teacher to supplement the slideshow. Be sure to stress the main characteristics of the Hudson River artists.

5. Display the printouts of the paintings you chose. Give students plenty of time to choose one they like the most. Arrange students in groups by preferred painting and give each group that print to analyze; also give them copies of **Handout 1: Interpreting an Artwork**.

6. Have the groups work together to analyze the painting, using the handout. If time allows, have them share with the class what they discovered. Collect the handouts to use for assessment.

Part 2: Sketching a landscape

1. Weather and school location permitting, take students outside to view a natural setting. Have students bring sketchbooks with them to draw what they see from different locations and angles. If desired, let them take photos with their phones. (If this is not feasible, have students explore the virtual landscape within the *Walden* game, or use the screenshots of the game included in the slideshow with this lesson.)

2. In the classroom, have students do a full-scale drawing of a landscape that they will later transfer to another medium (canvas or watercolor paper) for addition of color.

Part 3: Completing the project

1. Check each drawing to be sure that it has all the necessary details about the landscape.

2. Review with students the main characteristics of the Hudson River School of painting.

3. Give students time to transfer the drawing to the canvas or watercolor paper.

4. Tell students to use their knowledge of the Hudson River School to add color, texture, and perspective in that style.

5. Use the rubric from **Handout 2 to assess student work**.

Extension Activities

1. If students have access to the game software, have them take screenshots to use as the basis of their sketches. If students are using a Macintosh computer, they can take a screenshot while in the game by pressing Shift+Command+3. The screenshot will be saved by default to the desktop. On a Windows computer, they can press Alt+PrtScn. The screenshot will be saved by default to the clipboard. Open any imaging software, create a new document and press Ctrl+V to save the clipboard image to the new document.

2. An alternative activity would be to do the Day 1 and 2 activities, but then have students copy one of the original artists' works to see how well they are able to do it. Sometimes this is a great way for them to learn how to make and blend colors and try for details.

3. Have students create an abstract painting based on one of the Hudson River School paintings or on one of their screenshots from *Walden, a game*.

Handout 1 ▸ P.1

Interpreting an Artwork

Have you ever looked closely at a painting? When viewing paintings, it's important to spend some time just looking to get the true feel of what an artist is trying to portray. Below are the steps we will use.

A. Formal Analysis: Describing the aesthetics: color, space, composition, and other elements, as well as the subject matter

B. Contextual Analysis: Identifying and analyzing the personal, social, and political influences that affect the art, the artist, and the audience.

C. Synthesis: Interpreting and relating to the art based on the analysis. What is the artist trying to communicate?

Study the painting your group has chosen and answer the following questions:

A. Formal

1. What is the artist's color palette?

2. How does the use of space (foreground, middle, background) affect the composition and subject matter?

Handout 1 ▸ P.2

Interpreting an Artwork

3. What did you notice first and why?

4. Does your eye travel through the picture? If so, how?

5. Does the artist's use of color and line create a mood? If so, what kind?

6. If you were in this scene, what would you feel/see/hear/smell/touch?

Handout 1 ▸ P.3

Interpreting an Artwork

B. Contextual

1. In what ways is the work a reflection of the time in which it was painted?

2. In what ways does the work reflect the artist's life?

C. Synthesis

1. Based on what you have learned, do you understand the artist's message?

Handout 1 ▸ P.4

Interpreting an Artwork

2. How does the artwork relate to its time period?

3. How does the artwork relate to your own experiences? (Be specific.)

4. How does the artwork relate to work by other artists and to poems and other literature?

Handout 2

The Hudson River Painters (Rubric)

Student Name: _____ **Date** _____

Class: _____

Criterion	Score
Student participated in the class discussion of the slideshow on the Hudson River Painters.	
Student used observational skills to analyze the chosen painting and recorded observations on Handout 1.	
Student created a detailed working sketch for the final project.	
Student used the chosen medium carefully, neatly, and with skill.	
Student was able to develop a color scheme to help create atmosphere and perspective.	
The landscape has a focal point.	
The work was signed and dated on the front right corner when completed.	

Scoring Key

Exceeds expectations
Meets expectations
Progressing toward expectations
Needs improvement

Modern Writing about Nature

Enduring Understandings

- Essays about nature often combine images and figures of speech to express observations, as well as subjective reflections and impressions.
- Nature writing can range from romantic exultation to realistic observation.
- There are links among nature writing, poetry, science, and environmentalism.

Essential Questions

- How interdependent are humans with the nature around us—water, land, air, flora, and fauna?
- Is the nature around us more than just a useful commodity?
- How do observations of nature affect our understanding of our own role in time and space?

Notes to the Teacher

Writing about nature has a long history both preceding and following Henry David Thoreau's sojourn in the woods and his writing about his experiences and observations at Walden Pond. Classical haikus often hinged on observations of flora and fauna. British Romantic poets tended to exalt the wonders of nature in its wild state. The Victorian poet Gerard Manley Hopkins rhapsodized that, despite human actions, "Nature is never spent." Charles Darwin's *On the Origin of Species* was born of observations of and writings about nature. Today, close to two centuries after *Walden*, writers, like artists, still draw insights from and experience thoughts and emotional responses to the natural world around them, in landscapes ranging from arid desert views to marshy alcoves to snowy mountain heights.

People sometimes think of nature writing as the forte of romantics, but that is not always the case. "Mother" Nature is not always friendly. In fact, naturalists are likely to observe that the world around us is all about eating and being eaten, about destroying and being destroyed. Yes, there are stretches of golden daffodils, but there are also streams of lava, earthquakes, and hurricanes that both awe and terrify us. Today's writers are also often preoccupied with the negative effects of human activities on the natural world.

Prior to this lesson, students should have played at least the first season of the game of *Walden* and may have done journal writings about the practical needs of food, fuel, shelter, and clothing, as well as about ways nature can move us to insights and to inspiration. If time allows, students playing through the "Early Winter" season of the game may find it useful in understanding the passage on **Handout 1**.

This lesson begins by focusing on a passage from chapter 15 of *Walden*, in which Thoreau focuses on winter sounds and sights, on cracking ice and on nocturnal activities of foxes. The excerpt demonstrates the tendency of nature writers to blend objective observations with imaginative responses. These can in turn lead readers to their own insights and perceptions. Students then read an excerpt from Bill Bryson's *A Walk in the Woods* and consider ways it compares to and contrasts with Thoreau's writings.

In Part 2 of the lesson, students read and reflect on passages from three additional modern nature writers. Rachel Carson's work from the mid-twentieth-century reflects not only her abiding interest in nature, especially water life, but also her concern about an increasingly poisoned environment. The passage from Annie Dillard, focusing on her experience of a solar eclipse in 1979, stresses her observations, a struggle to express them, and visceral responses. Finally, students examine an excerpt from *A Sand County Almanac* in which Aldo Leopold describes a January thaw. There are, of course, many other nature writers that students could study, including Helen Macdonald, Edward Abbey, Peter Matthiessen, Cheryl Strayed, Gretel Ehrlich, and Rick Bass, just to name a few.

Part 3 leads students to draft original essays or prepare visual presentations dealing with examples of their own experiences with nature in different forms. You may want to share a few examples: a dandelion that has somehow managed to poke its way through a cement sidewalk; a spider suddenly dangling on a filament in front of one's face; a glorious tract of bluebells in spring. Be careful, though, not to give away too many ideas. You will want to encourage students to emulate the writers just studied by making careful word choices and decisions about figurative language. Consider writing your own response to such an experience to share with your students.

If you have chosen to have students write essays, you may wish to have them published in a blog, accompanied by appropriate photos or drawings. If students have worked on a visual presentation, plan a day for them to present their projects or a gallery to display their work. If students have had a choice, include photographs of their visual presentations in the classroom blog.

Duration

3–4 class periods, depending on the extent to which the procedures are expanded

Assessments

Responses to handout questions

Class discussions

Short written responses

Essay or visual project about experiencing nature

Materials

WALDEN, A GAME

Journals from playing the game

HANDOUT 1: WINTER AT WALDEN POND

HANDOUT 2: A NIGHT IN THE WOODS

(Optional) Trailer for film A Walk in the Woods at http://www.walkinthewoodsmovie.com/

(Optional: Copies of *Walden* and *Pilgrim at Tinker Creek*)

HANDOUT 3: OBSERVING CHEMICAL EFFECTS ON THE ENVIRONMENT

HANDOUT 4: A TOTAL ECLIPSE OF THE SUN

(Optional) Photos from the 2017 eclipse at https://nasa.gov/eclipse2017.

HANDOUT 5: JANUARY THAW

COMMON CORE STANDARDS ADDRESSED BY THIS LESSON

CCSS.ELA-LITERACY.CCRA.R.1
Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

CCSS.ELA-LITERACY.CCRA.R.4
Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

CCSS.ELA-LITERACY.W.11-12.2
Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

CCSS.ELA-LITERACY.W.11-12.5
Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

Procedure

Part 1: The Woods at Night

1. Point out that many people today take time out in nature, using cabins, campers, and tents. Ask students how the experience differs from Thoreau's at Walden Pond. (Most people cannot take that much time off from work or other responsibilities; Thoreau did not have access to cell phone, television, radio, or the Internet, things we often take for granted.) Emphasize that Thoreau was fascinated by the natural world around him, and *Walden* includes many of his observations, as well as philosophical reflections and details about his daily life.

2. Distribute **Handout 1: Winter at Walden Pond** for students to complete with partners. Review responses. (Thoreau heard ice on the lake cracking and shifting during the night; he observed the crack on the ground; he heard and saw the nocturnal behavior of foxes. In his imagination, the lake and the foxes took on human characteristics. For example, the lake becomes a restless sleeper and the foxes are like primitive humans.)

3. Ask students to brainstorm words that describe Thoreau's implied attitude toward the nature around him. (respect, fascination, amusement, curiosity). Ask them to select word choices in the passage that seem especially effective. ("whooping," "cracking," "snow crust," "barking raggedly," "struggling for light," "vulpine curse")

4. Distribute **Handout 2: A Night in the Woods** and have students read the directions. (You may want to show students the trailer for the movie). Ask students to complete the exercise.

5. Have students discuss responses to the questions.

Sample Responses:

(1) While Bryson and Thoreau both described life in the woods, Thoreau's sojourn at Walden Pond did not expose him to wilderness dangers. Bryson's account shares an encounter with nature as a powerful and potentially dangerous force. He was not a spectator, but a participant, a human anxious not to become prey.

(2) The narrator, though well-intentioned, seems like an intruder in this natural environment, which was actually home to the bears—or whatever they were.

(3) The excerpt emphasizes the darkness that shrouded the animals, making it necessary for the hiker to rely on sounds. The reader is very aware that the weapons at hand would likely prove ineffectual as defense against hungry or angry bears.

6. (Optional) To extend the discussion, divide the class into small groups, and give half the groups a copy of *Walden*, the other half a copy of Annie Dillard's *A Pilgrim at Tinker Creek*. Direct groups to find passages of nature writing that interest them and to prepare brief presentations in which they discuss the effectiveness and purposes of the writings, including unspoken implications.

7. Have students write in response to the following prompt: Would you rather be alone inside Thoreau's cabin on a winter night or on the Appalachian Trail at night along with other hikers? Explain. Encourage the inclusion of concepts and/or quotes from their video game journals.

Part 2: Environmentalists' Writings

1. Explain that students will now examine three additional examples of nature writing that were composed long after Thoreau's experience at Walden Pond.

2. Distribute **Handout 3: Observing Chemical Effects on the Environment** and ask students to read the excerpt from Rachel Carson's *Silent Spring*. Then ask how the passage differs in tone from the writings by Thoreau and Bryson. (Nature here has been tainted by human interference.) Direct a discussion based on the questions.

Sample Responses

(1) Rachel Carson's purpose was both to share information and to express a warning about potential dangerous effects of widespread use of insecticides.

(2) Introduction of lethal chemicals into the environment can cause disastrous unanticipated consequences.

(3) The examples stress the deaths of fish exposed to the chemicals, even in supposedly purified municipal water systems.

(4) The motives were practical—to prevent insect damage to crops.

(5) Nature writing is not always purely descriptive; scientists use it for purposes of exposition and argumentation.

(6) He would have been rueful and angry, but probably not surprised at human short-sightedness.

3. Emphasize that the excerpt demonstrates strong links that often exist among nature writing, science, and ecology. Ask students to cite other examples of water, so essential to life, being dangerously contaminated. (Possibilities include fish in the Great Lakes poisoned by industrial waste and thus inedible; lead in the municipal drinking water in Flint, Michigan, and elsewhere; contaminated water because of sewage backup during severe flooding.)

4. Ask students if they recall their reactions to the eclipse that occurred in the United States in 2017. Then distribute **Handout 4: A Total Eclipse of the Sun** and have students complete the exercise. While they are working, you may want to show photographs of the complete solar eclipse at https://nasa.gov/eclipse2017.

5. Conduct a discussion based on students' responses to the handout questions.

Sample Responses

(1) Events like a solar eclipse tend to draw vast crowds for many reasons. For one, a total eclipse is a very rare occurrence. It is in itself interesting in both scientific and aesthetic senses. It is also true that people like to be "where the action is."

(2) The passage emphasizes sight and sound and moves from light to darkness, from noise to silence.

(3) The closing lid and snapping lens cover emphasize the experience of being abruptly enclosed in darkness. A similar experience might be a sudden power failure when one is reading by lamplight. Less abrupt but not dissimilar is turning a corner in a cave or passing through a long unlit tunnel.

(4) The experience left her in dumbstruck awe.

(5) For example, the rhythm of the phrases and sentences almost sounds like gasping for breath.

6. Ask how the excerpt differs in purpose from the passage by Rachel Carson. (Here the writer is profoundly awed by a cosmic spectacle beyond human control. Rachel Carson writes disapprovingly about the use of pesticides that are under human control.)

7. Have students brainstorm examples of other natural events that might evoke a similar response to Annie Dillard's. (Examples: a vivid double rainbow after a thunderstorm; misty water cascading down a mountainside; the aurora borealis.)

8. Distribute **Handout 5: January Thaw** and ask students to complete the activity. Conduct a discussion based on the questions.

Sample Reponses

(1) The passage sounds remarkably like Thoreau at work, calmly but enthusiastically examining the environment and responding to it.

(2) The early thaw induces restlessness—an eagerness to escape the confines imposed by winter—in animals and humans alike.

(3) The whimsical simile suggests that the walker is following someone important through the fields.

9. Point out Aldo Leopold's careful uses of words and phrases, including graceful alliteration, onomatopoeia, and parallels such as the curling and uncurling of the skunk.

10. Ask students to select one of the three excerpts and to write one or more paragraphs in which they respond to it, including evidence of comprehension, as well as an explanation of insights and feelings evoked.

Part 3: Student Writing about Nature

1. Read aloud the following quote from Barry Lopez's *Crossing Open Ground*.

I had come to the canyon with expectations. I wanted to see snowy egrets flying around the black schist at dusk; I saw blue-winged teal against the green waters at dawn. I had wanted to hear thunder rolling in the thousand-foot depths; I heard the guttural caw of four ravens. . .what any of us came to see or do fell away. We found ourselves at each turn with what we had not imagined.

2. Discuss with your students what the passage means or suggests. (There is a certain amount of unpredictability in nature, a surprise element. We may not always see and hear what we want to experience, but, if we are receptive, what we do observe can be amazing.)

3. Tell students that they will be writing essays or, if you prefer, completing visual presentations about their own past experiences of nature.

4. Suggest that students use graphic organizers such as cluster webs, observation charts, or describing wheels to identify and explore each of the following:

a. a place of outstanding natural beauty;

b. a time when something in nature caused either fear or pain;

c. an instance when nature seemed eerie or mysterious;

d. seeing something in nature very different from their usual surroundings;

e. observing an animal going about its ordinary business;

a. seeing something in nature that had been blighted.

5. Put the following assignment on the board so that students clearly understand the requirements. Leave it on display as they work.

Write an essay (or design a visual presentation) in which you describe and discuss at least two experiences you have had with nature, including both your observations and your responses. Select occasions which are connected in some way, for example by their similarities or by their contrasts. Like the other nature writers you have discussed, make careful word choices and include images and figurative language. You may also include links between your experiences and those of Thoreau and the other writers.

6. Allow class time for students to begin planning and drafting, and set a day for group conferences. On that day, have small groups meet to respond to and make suggestions about one another's work. Then establish a due date for final essay or project. (You may also want them to submit earlier drafts that demonstrate an effort at revision and editing.)

Handout 1

Winter at Walden Pond

In chapter 15 of *Walden*, Thoreau describes some of his observations of the world around him during winter. Read the excerpt, and use the columns to distinguish what he saw and heard from what he felt and imagined.

> I also heard the whooping of the ice in the pond, my great bed fellow in that part of Concord, as if it were restless in the bed and would fain turn over, were troubled with flatulency and had dreams, or I was awakened by the cracking of the ground by the frost, as if some one had driven a team against my door, and in the morning would find a crack in the earth a quarter of a mile long and a third of an inch wide.
>
> Sometimes I heard the foxes as they ranged over the snow crust in moonlight nights, in search of a partridge or other game, barking raggedly and demoniacally like forest dogs, as if laboring with some anxiety, or seeking expression, struggling for light and to be dogs outright and run freely in the streets, for if we take the ages into our account, may there not be a civilization going on among brutes as well as men? They seemed to me to be rudimentary, burrowing men, still standing on their defence, awaiting their transformation. Sometimes one came near to my window, attracted by my light, barked a vulpine curse at me, and then retreated.[1]

Thoreau's Observations	Thoreau's thoughts and responses

1 www.//literaturepage.com/read/walden.html

Handout 2

A Night in the Woods

Toward the end of the twentieth century, during a stay in the United States, English-American writer Bill Bryson decided to hike the famed Appalachian Trail, which extends from Maine to Georgia. He later wrote about the experience in *A Walk in the Woods*, which was also adapted into a movie. Read the excerpt below and answer the questions.

> The creature—creatures, now—resumed drinking with heavy lapping noises. I couldn't find my replacement batteries, so I flung the flashlight aside and put my miner's lamp on my head, made sure it worked, then switched it off to conserve the batteries. Then I sat for ages on my knees, facing the front of the tent, listening keenly, gripping my walking stick like a club, ready to beat back an attack, with my knife open and at hand as a last line of defense. The bears—animals, whatever they were—drank for perhaps twenty minutes more, then quietly departed the way they had come. It was a joyous moment, but I knew from my reading that they would be likely to return. I listened and listened but the forest returned to silence and stayed there.
>
> Eventually I loosened my grip on the walking stick and put on a sweater—pausing twice to examine the tiniest noises, dreading the sound of a revisit—and after a very long time got back into my sleeping bag for warmth.[2]

1. Like Thoreau, Bryson was immersed in nature. How did their experiences differ?

2. How would you describe the hiker's relationship with the world around him?

3. What details and word choices in the passage convey the intensity of the experience described?

2 Bill Bryson, *A Walk in the Woods* (New York: Anchor Books, 1998), 205–206.

Handout 3 ▸ p.1

Observing Chemical Effects on the Environment

Rachel Carson was a prominent mid-twentieth-century scientist with a strong interest in the health of the environment. Her 1962 book *Silent Spring* was instrumental in evoking legislation regarding the use of pesticides. Read the excerpt, and answer the questions.

> Here and there we have dramatic evidence of the presence of these chemicals (insecticides) in our streams and even in public water supplies. For example, a sample of drinking water from an orchard area in Pennsylvania, when tested on fish in a laboratory, contained enough insecticide to kill all the test fish in only four hours. Water from a stream draining sprayed cotton fields remained lethal to fishes even after it had passed through a purifying plant, and in fifteen streams tributary to the Tennessee River in Alabama the runoff from fields treated with toxaphene, a chlorinated hydrocarbon, killed all the fish inhabiting the streams. Two of those streams were sources of municipal water supply. Yet for a week after the application of the insecticide the water remained poisonous, a fact attested by the daily deaths of goldfish suspended in cages downstream.[3]

1. How would you describe the purpose of this piece of writing?

2. What is the main idea in the passage?

3 http://archive.org/stream/fp_Silent_Spring-Racchel_Carson-1962

Handout 3 ▸ p.2

Observing Chemical Effects on the Environment

3. What details did Rachel Carson include to support her main idea?

4. What motives prompted the use of the insecticides? Were these motives malevolent?

5. What does the passage show about connections among nature writing and science?

6. If Thoreau had been alive to read this passage, how do you think he would have reacted?

Handout 4 ▸ P.1

A Total Eclipse of the Sun

In February 1979, American writer Annie Dillard travelled many miles to witness a total eclipse of the sun visible in Northwestern USA. Several years later she wrote about it in an essay published in *Teaching a Stone to Talk*. Read the following excerpt from that piece, and respond to the questions.

> From all the hills came screams. A piece of sky beside the crescent sun was detaching. It was a loosened circle of evening sky, suddenly lighted from the back. It was an abrupt black body out of nowhere. It was a flat disk. It was almost over the sun. That is when there were screams. At once the disk of sky slid over the sun like a lid. The sky snapped over the sun like a lens cover. The hatch in the brain slammed. Abruptly it was dark on the land and in the sky. In the night sky was a tiny ring of light. The hole where the sun belongs is so very small. A thin ray of light marked the place. There was no sound. The eyes dried; the arteries drained; the lungs hushed. There was no world.[4]

1. In 1979, people crossed great distances to see a solar eclipse, an experience that happened very quickly. In August 2017 the same thing occurred. The next solar eclipse in the United States will be in 2024. Will you want to see it? Explain why, or why not. If you want to see it, how far would you be willing to travel?

2. What senses does Annie Dillard emphasize in her description? Do you see a similar pattern in the images?

4 htpps//www.theatlantic.com/../08/anniedillard-total-eclipse/536148

Handout 4 ▸ P.2

A Total Eclipse of the Sun

3. She uses two similes to describe the sudden darkness. What do those figures of speech convey? Can you think of others that convey the same impression?

4. How did witnessing the eclipse affect the writer? Do you think other observers of eclipses have had similar experiences? Why, or why not?

5. What do the author's choices in diction (word choice) and syntax (sentence construction) contribute to the piece?

Handout 5 ▸ p.1 January Thaw

Aldo Leopold was a scientist and conservationist in the first half of the 20th century. As a professor at the University of Wisconsin, he was active in developing the science of wildlife management. Read the following excerpt from *A Sand County Almanac* and answer the questions below.

> Each year, after the midwinter blizzards, there comes a night of thaw when the tinkle of dripping water is heard in the land. It brings strange stirrings, not only to creatures abed for the night, but to some who have been asleep for the winter. The hibernating skunk, curled up in his deep den, uncurls himself and ventures forth to prowl the wet world, dragging his belly in the snow. His track marks one of the earliest datable events in that cycle of beginnings and ceasings which we call a year.
>
> The track is likely to display an indifference to mundane affairs uncommon at other seasons; it leads straight across country, as if its maker had hitched his wagon to a star and dropped the reins. I follow, curious to deduce his state of mind and appetite, and destination if any.[5]

1. How does the passage compare and contrast with the excerpts from the other writers?

2. What seems to be the writer's main perception about the winter thaw?

5 Aldo Leopold, "January Thaw," *A Sand County Almanac*, as reprinted in *A Sand County Almanac & Other Writings on Ecology and Conservation*, ed. Curt Meine (New York, The Library of America, 2013), 3.

Handout 5 ▸ p.2

January Thaw

3. What is the effect of the simile at the end?

A Wild Lens: Learning to Record Nature

Enduring Understandings

- Organisms, places, and ideas related to nature can be explored to make sense of the world.
- Organisms, places, and ideas change over time.
- Observations of the natural world are made using multiple senses.
- People can recognize relationships between organisms and places.
- Culture and land are related.
- People share a relationship with nature.

Essential Questions

- What is "place"?
- What does it mean to have a sense of place?
- Why is it important to identify patterns existing in nature?
- How can visual data contribute to our understanding of the natural world?
- What is the relationship between human culture and place?
- How does having a sense of place relate to personal identity?
- What is the relationship between a person and nature?
- How do living things, places, and ideas related to nature change over time?

Notes to the Teacher

The activities in this lesson are designed to build upon each other. A review of each activity prior to the lesson is suggested to best understand how each one scaffolds and to determine the most appropriate use of class time. While the recommended lesson duration is between two and five one-hour class periods, the activities can easily be modified to fit the timeframe available. This lesson takes an interdisciplinary approach to teaching about Thoreau's *Walden*. Through play of the game *Walden*, scientific observation, and journaling, students will learn about the concept of sense of place; the lesson invites students to examine the relationship among organisms, place, and identity through a nature lens.

In Part 1 of this lesson, students will use Thoreau's *Walden* and WALDEN, A GAME to learn about the importance of documenting the observations and interactions we have with nature. Students will explore how a nature journal can be used to record and personalize experiences in nature to gain awareness of the complex environmental systems to which humans belong.

Before the first class session, make enough copies of **HANDOUT 1: TURNING OVER A NEW LEAF** so that each group of 4-5 students can receive a set. You may also complete this portion of the activity using any collection of leaf images or specimens in place of the handout, depending on location and time of year. You may also encourage the students to collect their own specimens. This part of the lesson would work well as a single class with **HANDOUT 2: WALDEN—FINDING VOICE THROUGH NATURE** assigned as homework ahead of Part 2, but would also work well spread over two class periods.

In Part 2 of this lesson, students will examine how time in nature can influence one's personal environmental ethic. After examining the objective and reflective nature of Thoreau's entries, they will use green space at school or in the community to practice nature sketching and the use of appropriate language to describe patterns and details, identify specimens, and use scientific names. Hand lenses and local plant and animal identification guides may be helpful for students as they complete **Handout 3: Art of the Nature Journal**. Finally, they will explore the use of mapping in nature investigation, using combined entries from their nature journals to create a collaborative map and informal field guide of the area surveyed by the group. Please note that Internet access may be necessary during this part of the lesson.

Duration of the Lesson

Two to five one-hour periods

Assessments

Completion of the *Turning Over a New Leaf* activity

Completion of the *Art of the Nature Journal* activity (journal entry and reflection)

Walden—Finding Voice Through Nature assignment

Completion of the *Mapping Place* project (map, journal entries, and art)

Group discussion

Student presentations

Materials needed

Color copies of leaf placards (see **Handout 1: Turning Over a New Leaf**)

Blank index cards (or paper of a similar size)

White board

White board markers

Art markers

Writing utensils

Colored pencils

Scissors or paper cutter

Blank drawing paper

Hand lens (class set)

Local plant and animal identification guides (Audubon, Peterson, Sibley, etc.)

Computers with Internet connection

Access to *Walden, a game* software

Printers

Poster board

Distance measuring devices (measuring tapes, meter sticks, measuring wheel)

Handout 1: Turning Over a New Leaf

Handout 2: Walden—Finding Voice Through Nature

Handout 3: Art of the Nature Journal

Handout 4: Art of the Nature Journal—Student Reflection

Handout 5: Mapping Place

Common Core Standards addressed by this lesson

English and Language Arts Standards

CCSS.ELA-LITERACY.RL.9-10.1
Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

CCSS.ELA-LITERACY.RL.9-10.2
Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

CCSS.ELA-LITERACY.RI.9-10.3
Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

CCSS.ELA-LITERACY.RI.9-10.4
Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).

CCSS.ELA-LITERACY.RI.9-10.6
Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.

CCSS.ELA-LITERACY.W.9-10.2
Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

CCSS.ELA-LITERACY.W.9-10.3
Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

CCSS.ELA-LITERACY.W.9-10.4
Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

CCSS.ELA-LITERACY.W.9-10.6
Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

CCSS.ELA-LITERACY.W.9-10.10
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 tasks, purposes, and audiences.

CCSS.ELA-LITERACY.L.9-10.3
Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Common Core Standards addressed by this lesson

Science and Technical Subjects Standards

CCSS.ELA-LITERACY.RST.9-10.2
Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.

CCSS.ELA-LITERACY.RST.9-10.3
Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.

CCSS.ELA-LITERACY.RST.9-10.4
Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.

CCSS.ELA-LITERACY.RST.9-10.5
Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).

CCSS.ELA-LITERACY.RST.9-10.6
Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.

CCSS.ELA-LITERACY.RST.9-10.7
Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.

CCSS.ELA-LITERACY.RST.9-10.9
Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.

Procedure

Part 1: Learning to Notice (1-2 one-hour class periods)

1. Begin by having the students play the game *Walden*. Ask them to pay special attention to the ability to "inspect" things in the world by right-clicking on them. Each time they inspect, they will find information and quotes about plants, animals, trees and other objects in the game. These quotes will fill their in-game journal; however, they may also want to keep their own notes on what they find in the virtual nature of the game. If you are able to play more than one season of the game with the students, ask them to inspect the same plants and trees in different seasons and note what changes they observe.

2. Ask the students what the point of Thoreau's *Walden* is, allowing time for several students to share. Explain that Thoreau is considered one of the first nature writers, having documented his experiences with the natural world through observation, reflection, and feeling. Then explain that Thoreau's work can teach us to look deeply at the natural world to learn about and share the wisdom of life found in our natural surroundings.

3. Explain to the students that, in the style of Thoreau, they are going to practice the art of "noticing." Divide the students into groups of 4 or 5. Distribute one set of numbered leaf cards (see **Handout 1: Turning Over a New Leaf**), blank index cards or paper, and writing utensils to each group. The leaf cards should be placed face-down on the table. Ask each student to choose one leaf card, making sure no one else in the group can see the one chosen.

4. Allow the students 10 minutes to write as many characteristics about the leaf displayed on the card they chose as possible. Have them record their observations and names on the index cards or paper provided. They should remember the number of the leaf card they chose or record it on a separate sheet of paper, but should not record it on the index card.

5. When the 10-minute observation period ends, the students should return the leaf cards they chose to the pile on the table. The card set should still be face-down. Ask one student in each group to flip the pile of leaf cards over in the middle of the table so that the numbers and photos of all cards are visible.

6. Next, ask one student in each group to collect the observation lists made by the students and redistribute them within the group. Each student should end up with one observation list made by another student in the group.

7. Allow the students time to review the observations on the index cards in their possession and then to study the entire group of leaf placards on the table in front of them. Ask them to guess which leaf placard might belong to the observation list they were given. Allow several minutes for students to determine if they guessed correctly by connecting with the authors of their observation lists.

8. With the observation lists they were given still in hand, ask the students to review the descriptive language used for each placard. Invite the students to look for examples of the language which (1) was helpful in identifying their leaf placards and (2) made it difficult to determine the correct placard. Invite several students to share the differences in language they found helpful and not helpful as part of the identification process. Ask the students what other observations could have been included that would have helped them identify the correct leaf.

9. Next, ask the students to consider the detail used in the descriptions they initially wrote about their leaf placards. Ask the students to use the colored pencils and blank paper provided to draw the leaves from the same placards they initially chose to use for their observations. Drawings should be to scale and include as much detail as possible. Allow students to work for approximately twenty minutes (feel free to add extra time if needed). When students are finished, ask them to write the common and scientific names of the leaves shown on the placards on their drawings. Invite them to share their drawings with the class. Ask the students the following questions as part of a short class discussion.

a. *What details were you able to include in your drawing of the leaf?*

b. *How did the amount of detail you included in your drawing differ from the detail you included in your written observation? Please explain.*

c. *What characteristics of your leaf did you include in your drawing that you may not have noticed during the initial observation process on the index cards?*

d. *Do you think the observation list you made would have been more thorough if you had drawn your leaf first? Please explain.*

e. *In what situations do you think written observations are more important than observations which are drawn? How about the opposite?*

f. *Can you think of a scenario for which written observations might be as important as those made using a drawing? Please explain.*

g. *Consider the scenario of going for a walk outside and being asked to record your experience. What other kinds of observations, aside from the visual, might you make?*

h. *Why do you think it is important to know how to notice your surroundings?*

i. *What are some examples of things Thoreau noticed around Walden Pond?*

10. Explain to the students that, in the next part of the lesson, they will have the chance to practice some of their newly-acquired observation skills in a more natural setting. Tell them that the power of good observation, as modeled by Thoreau, can provide an opportunity to study the natural world in a way which can help people become more aware of their surroundings. Explain that looking closely at nature can also inspire personal growth and offers people the chance to develop a meaningful relationship with the Earth. Host a brief discussion, using the following questions as a guide.

a. *How might paying attention to nature inspire someone's personal growth?*

b. *What does it mean to have a meaningful relationship with the Earth? How might paying attention to nature help someone develop a meaningful relationship with the Earth?*

c. *What are some examples of moments in your life when the time you spent in nature helped influence your appreciation of the natural world? Please explain.*

11. Divide the students into groups of two or three. Distribute copies of **Handout 2: Walden—Finding Voice Through Nature**. Explain to them that they will have the opportunity to read an excerpt from a chapter in Thoreau's *Walden*, looking to the example of Thoreau's journaling as a tool and technique for relating his life to the natural world. Ask the students to read the excerpt on the handout and answer the questions provided in their small groups. Inform students that their responses will be used for a class discussion at the beginning of the next class. *NOTE: This part of the activity could also be assigned as homework if time to work in class is not available.*

Part 2: Recording Place (1–3 one-hour class periods)

1. Spend the first 10 minutes of class reviewing the questions from **Handout 2: Walden—Finding Voice Through Nature**, calling on several students to volunteer their responses. When the students have finished sharing, host a brief discussion using the following questions as a guide.

a. *What kinds of things would you write about in a regular journal?*

b. *How would your entries be different if you were recording your experiences in nature?*

c. *What is a nature journal?*

d. *Why would someone want to keep a nature journal?*

e. *How would a person begin the process of journaling about nature?*

2 Distribute one copy of **Handout 3: Art of the Nature Journal** and a hand lens to each student, explaining to the class that they will have the opportunity to practice recording experiences in nature through the completion of a nature journal entry. Explain that this is a template for an entry in a nature journal that a person could use to document time spent in nature.

3. Review the requirements for each section of the handout with the students, paying close attention to the variety of observations they will be making. Ask the students to focus on the five senses during their observation, if necessary reviewing the senses as they might relate to time in nature. If time permits, take the class outside and encourage students to find their own places in which to observe and complete the journal entry. Tell the students that they should use color where possible and be as creative as they can. They should also be completely silent for the duration of the activity and complete the entire handout. This activity should take approximately twenty minutes. *NOTE: Having several plant and animal identification guides on hand may help students with the scientific names of the organisms they will be asked to draw. An alternative form of this activity could be to assign this handout as homework.*

4. When students have completed their journal entry, distribute one copy of **Handout 4: Art of the Nature Journal—Student Reflection** to everyone in the class. Explain that they will have the opportunity to think about their experience recording nature in the form of a personal reflection. Review the questions on the handout with the class, and allow the students time to work on the reflection. Final reflections should be completed in a different class period or assigned as homework, typed, and collected as an assessment. *NOTE: **Handout 4: Art of the Nature Journal—Student Reflection** includes a list of prompts which students need to address, but the final reflection should be in the form of a written paragraph or paragraphs which take the responses into account in a narrative format.*

5. For the final portion of the lesson, divide the students into groups of 4 or 5. Distribute copies of **Handout 5: Mapping Place** to each student; each group should also receive one poster board and length/distance measuring device. Explain to the students that, for the first part of this activity, they will need to make a bird's eye view map of their campus (see **Handout 5: Mapping Place**, Part 1). Review the map project requirements appearing on the handout. Remind the students their maps should be to scale and include all campus green space outside of school building(s). Groups can create their maps with the help of Google Earth (https://www.google.com/earth/) or by using their own method of measuring distances on campus. Allow students one class period to work on their maps. NOTE: A suggested alternative to the use of the school campus as a mapping area might be a local park or public space. Also, the number of features required for inclusion on the maps can be modified as time permits.

6. When the maps are finished, have the students in each group discuss possible locations for continued nature journaling over a short period of time. Each group member should choose a specific location in which to complete a series of nature journal entries, marking their designated locations on the group map using numbers.

7. For the next part of the activity, explain to the students that they will spend the first part of the next three classes at their assigned locations. Tell them they will complete a journal entry for each day of observation, thinking about their own sense of place and how this connection might shape their identity (see **Handout 5: Mapping Place**, Part 2). Explain to the students they will be tracking how their locations change over the course of the observation period. Each entry should include the number of the location. Entries should be completed using the template from **Handout 3: Art of the Nature Journal**. *NOTE: The instructions for this part of the lesson indicate an observation period of three days, but this timeframe can easily be modified at the discretion of the teacher. Additional suggestions might include one entry per week for a month, over a marking period, or across the span of a year.*

8. When the designated observation period is complete, group members should individually complete a piece of art on an 8.5" by 11" sheet of paper (see Handout 5: Mapping Place, Part 3). This work should represent (1) their experience recording the changes to their location over time and (2) how their continuing experience at the location influenced their identity and core values over the course of the observation period. When students are finished, groups should hang their maps on the walls in the classroom, with each journal entry and piece of art generated by group members attached to the maps and corresponding to the places recorded.

9. Allow students to share their artwork as part of informal, discussion-based presentations with an emphasis on how nature was brought into their awareness through the experience of journaling. Presentations should be made using the questions provided in Part 3 of **Handout 5: Mapping Place** as a guideline. NOTE: Suggested presentation length is between three and five minutes.

Handout 1 ▸ P.1

Turning Over a New Leaf

Instructions to the Teacher: One copy of this handout should be printed in color and used for each group of 4–5 students. Cut each handout apart to make a set of leaves for each student group.

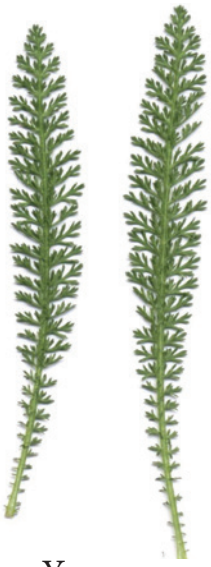
1

Motherwort
Leonurus cardiaca

2

White Dead-nettle
Lamium album

3



Yarrow
Achillea millefolium

4

Herb Robert
Geranium robertianum

Handout 1 ▸ P.2

Turning Over a New Leaf

5

Red Dead-nettle
Lamium purpureum

6

Celandine
Chelidonium majus

7

Persimmon
Diospyros kaki

8

Smooth Sow Thistle
Sonchus oleraceus

Handout 2 ▸ P.1

Walden—Finding Voice Through Nature

Directions:

Please answer the questions below using the following excerpt from Chapter 5 (Solitude) of Henry David Thoreau's *Walden*.

> This is a delicious evening, when the whole body is one sense, and imbibes delight through every pore. I go and come with a strange liberty in Nature, a part of herself. As I walk along the stony shore of the pond in my shirt-sleeves, though it is cool as well as cloudy and windy, and I see nothing special to attract me, all the elements are unusually congenial to me. The bullfrogs trump to usher in the night, and the note of the whip-poor-will is borne on the rippling wind from over the water. Sympathy with the fluttering alder and poplar leaves almost takes away my breath; yet, like the lake, my serenity is rippled but not ruffled. These small waves raised by the evening wind are as remote from storm as the smooth reflecting surface. Though it is now dark, the wind still blows and roars in the wood, the waves still dash, and some creatures lull the rest with their notes. The repose is never complete. The wildest animals do not repose, but seek their prey now; the fox, and skunk, and rabbit, now roam the fields and woods without fear. They are Nature's watchmen — links which connect the days of animated life.

Thought Questions

1. Which things mentioned in this passage are based on visual observation? What about observations using the other senses?

2. What kinds of things are mentioned in this excerpt that Thoreau might also have chosen to draw?

Handout 2 ▸ p.2

Walden—Finding Voice Through Nature

3. What evidence from this excerpt can you use to describe how Thoreau may have been feeling when he wrote it? Please explain.

4. What does this excerpt tell you about the kind of person Thoreau was? Please explain.

5. Who do you think would find this type of record of the natural world useful? Please explain.

6. How is this excerpt different from a diary or journal entry you might make?

Handout 3

Art of the Nature Journal

Directions:

Please complete all sections of the following nature journal entry from your assigned location. Be as thorough, descriptive, and creative as possible.

<table>
<tr><td>Name.</td><td colspan="2">Date</td></tr>
<tr><td>Location.</td><td colspan="2" rowspan="2">Description of today's weather.</td></tr>
<tr><td>Description of location using your <u>five</u> senses.</td></tr>
<tr><td colspan="2">Detailed, colored sketch of a living thing at this location with written observations. Common name, genus, and species should be included if possible. Use the back of this paper if necessary.</td><td>Evidence of human activity or impact at this location.</td></tr>
<tr><td colspan="3"><u>Three</u> questions you would like to have answered about your location.</td></tr>
<tr><td><u>Five</u> words that come to mind about your location.</td><td colspan="2">Description of your feelings about this location. What does it remind you of? How does it make you feel to be here? Be specific!</td></tr>
</table>

Handout 4

Art of the Nature Journal—Student Reflection

Directions:

Using your responses from the *Art of the Nature Journal* activity, write a reflection of your experience observing nature in the location you chose. Your reflection should be in paragraph form and should address at least four of the following prompts. Final reflections should be typed.

- Describe the experience of sitting in one place out in nature and observing your surroundings.
- Describe one thing you noticed while sitting in the location that you hadn't previously noticed.
- Describe one thing you noticed that surprised you the most about your place. Be specific.
- What are some examples of things you noticed that are similar to some of Thoreau's journal entries you read while playing the Walden game?
- How have humans shaped the area you observed? How do you feel about the specific impact of humans here? Please be specific.
- What resources would you need to answer some of the questions you posed about your place?
- How do you think your location might change over the course of 24 hours?
- How does the location in which you conducted your observations connect to your history? Were you reminded of the past or did you feel connected to the future when you were journaling?
- What did you feel the most while sitting in your location?
- Describe something in your location for which you felt grateful. Please explain.
- What aspect(s) of your location did you find beautiful?
- What does it mean to have a sense of place?
- How did your experience in this location connect to or help influence your sense of place?
- How did your experience in this location help bring nature into your awareness?
- How will your experience at this location help shape your identity?

Handout 5 ▸ p.1

Mapping Place

Directions:

Creating your own map of a place is a great way to learn more about an area before studying it. The more you know about your local places, the better able you are to learn about your community, understand the connection between your community and identity, and gauge how your actions relate to the world in which you live. A good map, as we learn from Thoreau, can help you observe the physical features of a study site. It can help you use the site for ongoing investigations, learn more about spacial aspects of environmental features, and explore how the site can transform over time.

Part 1: For this portion of the activity, you will work with your group to create a bird's-eye map of your school campus. It should be to scale, and include all campus green space as well as the school building(s). Your map can be created with the help of Google Earth (https://www.google.com/earth/), or by using your own method of measuring distances on your campus. Your completed map should be colorful and neat; it should fit on the poster board provided, and include the following:

- Legend which includes an appropriate map scale with correct units
- Compass rose which accurately demonstrates north, south, east, and west
- Locations of buildings, drives, parking areas, and sidewalks
- Permanent structures which are not part of the school building (e.g. fences, walls, signs, etc.)
- Roads near to campus (including road names)
- Playgrounds and athletic fields
- Outside waste management areas (garbage cans, recycling bins, compost bins, etc.)
- Existing vegetation (e.g. locations of trees, shrubs, landscaped areas, grass, and gardens)

Part 2: Using the map your group made, choose one location outside your school facility at which you will complete a series of nature journal entries. Mark your designated location on your group map using a number. Complete three nature journal entries according to the timeframes provided by your teacher. Your journal entries should be designed using the template from the *Art of the Nature Journal* activity. Be sure to record the number of your map location on each journal entry. Your journal entries should be as detailed and thoughtful as possible.

Part 3: Consider your map-related journaling experience in your chosen location. Design an original, two-dimensional composition which represents this experience and indicates a strong sense of place. Your piece should fit on an 8.5" x 11" piece of paper and visually address the following questions Be prepared to share your art with the class in a 3–5 minute presentation.

1. How did the location you observed change over the journaling timeframe?
2. What did you notice in the location that was beautiful?
3. How did your experience at the location during the observation period influence your identity?
4. How did your experience at the location influence your core environmental values?

USC Game Innovation Lab

Journeys in Film™
EDUCATING FOR GLOBAL UNDERSTANDING
In Partnership with USC Rossier School of Education

USC Game Innovation Lab
Tracy Fullerton, Director
3470 McClintock, SCI 201
Los Angeles CA 90089-2211
Email: uscgameinnovationlab@gmail.com

Journeys in Film
50 Sandia Lane
Placitas, NM 87043
505.867.4666
www.journeysinfilm.org