“Thoreau’s Walden. A Journey in Photographs by Scot Miller”

A Traveling Exhibition by the Harvard Museum of Natural History

Curriculum unit for educators “Finding Your Own Walden through observation and journaling”

Prepared by the Walden Woods Project

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I) Introduction
This exhibition, *Thoreau's Walden*, allows visitors to experience Walden through Henry Thoreau’s words, Scot Miller’s photographs, and other multi-media devices. Shaped by his experiences, Thoreau’s literature serves as a model for finding, through detailed observations and reflections on nature and oneself, a personal connection with nature and the motivation to act to conserve and sustain the “wildness” in natural and social communities. Scot Miller’s present-day personal journey and photographs of Walden are evocative of Thoreau’s model. We hope your students will experience the exhibition in such a way that inspires them to **find and celebrate their own Walden** with the help of your guidance.

II) Walden Woods Project and its Education Programs
Education programs at the Walden Woods Project’s Thoreau Institute target educators, youth, and lifelong learners. The programs address the ideas, concepts, and skills needed for **good stewardship practices** and **socially responsible behavior**. The driving concept across all of our programs is the simple, yet poignant idea that **Every Community Has Its Own Walden**. The Thoreau Institute programs draw ideas and inspiration from the literature and legacy of Henry David Thoreau and the landscape of Walden Woods.

The highlight of our educational programs is a two-week summer seminar, one for high school teachers (Approaching Walden), and one for middle school teachers (Finding Walden), focusing on **place-based interdisciplinary education** – an education that encourages students to connect themselves to other humans and to the natural world, and allows for strong connections to be made between disciplines, making it more relevant and meaningful for the students. Henry David Thoreau and his life and literature are used as models for this educational model in the beginning of the seminar.

The other two components of the Walden Woods Project’s mission is land conservation within historic Walden Woods, and research through preservation of a rich archive and library collection dedicated to Thoreau’s writings and his influences. If you have questions about Thoreau’s writing and/or would like to visit the library, please contact our curator at (781) 259-4730 or curator@walden.org. To learn more about Walden Woods Project, visit us on the web at www.walden.org.

III) Finding Your Own Walden
Henry David Thoreau provides two distinct but critically related bodies of thinking. One crucial thread is Thoreau’s **literary naturalism**. Thoreau is best remembered for his second book, *Walden, or Life in the Woods*, a spiritual journey into the wilds of outer Concord, Massachusetts. These writings have influenced generations of nature writers and environmentalists including John Muir, Aldo Leopold, David Brower, Scott and Helen Nearing, and Paul Brooks, to name just a few.

Thoreau’s natural philosophy was mirrored and enhanced by his **social philosophy**. In 1855, he wrote in his journal, “If you would learn the secrets of nature, you must practice more humanity than others.” He had already published “Civil Disobedience” and developed most of his notes for “Life without Principle,” two of his most powerful attempts to encourage all of us to practice more humanity. His writings on social justice have provided the seminal thinking for conscience-based political activity and the practice of non-participation in the 20th century. Both Gandhi and
Martin Luther King, Jr. developed movements that found inspiration from Thoreau's social justice work.

Henry David Thoreau’s ideas have endured well for so long, we believe, because they were connected to place. “I have travelled a good deal in Concord,” Thoreau wrote about his home community, and, indeed, both his naturalism and his humanity derived from the specific place and time he lived in. Thoreau teaches us that one does not have to travel far to find curious, fascinating, and inspiring things. As a matter of fact, except for only a handful trips that Thoreau made outside Concord, he spent most of his life in one area. And he knew that area better than anyone else - he took almost daily walks, in any kind of weather, up to four hours a day. Thoreau says about Walden, “The scenery of Walden is on a humble scale, and, though very beautiful, does not approach to grandeur, nor can it much concern one who has not long frequented it or lived by its shore.” The ultimate lesson of Thoreau, thus, is that special places are the ones we know well, the ones we “frequent” and grow to love. And thus, the ethic of stewardship should begin with treasuring and preserving one’s home-place.

Thoreau’s process of finding his ‘Walden’ teaches us that anyone can do the same. But what does it really mean to have a ‘Walden’? A ‘Walden’ is a place that has special meaning to a community. It doesn't have to be pristine, nor does it necessarily have to be a fully natural area. A ‘Walden’ can be an empty lot, a schoolyard, a building, a park, conservation lands, farmlands, etc. A ‘Walden’ is a place of significance to the community, and thus it is up to each person or community to identify what their ‘Walden’ is.

We encourage you to use this curriculum unit to develop your students’ observational, journaling, and critical thinking skills to identify, celebrate, and possibly preserve ‘Waldens’ found in their own home-places.

IV) PRE-VISIT ACTIVITIES
To prepare for the visit to “Thoreau’s Walden. A Journey in Photographs by Scot Miller”, we offer you a variety of readings, discussions, and activities to choose from to create an engaging and educational lesson plan.

Suggested Readings List:
1) An introduction into Walden Woods’ natural and cultural histories (Attachment A)
2) Selections of Thoreau’s “Walden” Chapters:
   o Where I Lived and What I Lived For
   o Sounds
   o Solitude
   o The Village
   o The Ponds
   o Higher Laws
   o Spring
   o Conclusion
Thoreau’s essays:
   o “Natural History of Massachusetts”
   o “Walking”
   o “Life Without Principle”
Additional Optional Reading List: see Attachment B

Discussions prompted by Henry David Thoreau’s experiences and thoughts:
1) List of Thoreau Quotes that students will encounter at the exhibit (Attachment C).
2) Thoreau Journal Excerpts dealing with nature and close observation (Attachment D).
3) List of Thoreau Quotes on variety of topics (Attachment E).

Journaling Exercises:
➤ Nature
Developing good observational skills is crucial for all school disciplines and for life in general. See String Journaling activity (Attachment F) for a way to engage your students in observation and thinking without making a long field-trip. This exercise has worked in one teacher’s classroom for over 10 years.

A good method of preparing your students for journaling is sharpening their senses by making them slow down first. This can be achieved by a variety of activities, such as asking them to sit with their eyes closed and pay attention to all the sounds around them; to have them feel and try to identify different nature objects in a bag; to smell different objects or spices and talk about memories these smells evoke. Usually after these brief exercises, students seem more calm and attentive, more in tune with their surroundings, and more open to observing and writing.

➤ Reflective
To train your students in practical and creative writing, as well as to hone their critical thinking skills, ask your students to select one Thoreau quote each week (see Attachments C, D, or E) and respond to it in their journals. A String Journaling activity (Attachment F) also works well for reflective journaling.

V) VISIT ACTIVITIES
(Ask your students to bring in journaling notebooks and a pencil for writing and sketching).
Once you are at the exhibit, ask your students to take their time examining the photographs, quotes, and the general mood of the exhibit. See Attachments G and I for ways to engage your students through practice of active and careful observation, and then thinking and expressing their thoughts and feelings.

1) Close Observations (Attachment G - worksheet)
At the exhibit, ask your students to look for the following in the photographs.

For All Students – Look for signs of:
   a) Human presence
   b) Change
   c) Cycles

For Science Students – Look for signs of:
   a) Succession
   b) Glacial history
   c) Nature’s cycles
   d) Reflections and light
   e) Forest composition
   f) Specialization and function in nature
   g) Watershed
Walking with Thoreau – on Close Observations

“The question is not what you look at, but what you see.” [Journal 5 August 1851]

“No method nor discipline can supersede the necessity of being forever on the alert. What is a course of history, or philosophy, or poetry, no matter how well selected, or the best society, or the most admirable routine of life, compared with the discipline of looking always at what is to be seen? Will you be a reader, a student merely, or a seer?” [Walden “Sounds”]

In his journal Thoreau suggested: “Take one of our selectmen and put him on the highest hill in the township, and tell him to look! What, probably, would he see? What would he select to look at?” Observation, the art of seeing, is a deliberate act of creation, personal and selective, as well as objective. But it is also a long process. To reach an understanding you need to piece together, like a puzzle or a mosaic, observations over a period of time. “Most that is first written on any subject,” Thoreau wrote in 1859, “is a mere groping after it, mere rubble-stone and foundation. It is only when many observations of different periods have been brought together that he begins to grasp his subject and can make one pertinent and just observation.” It is what you finally see in its truest sense, not what your eye scans but what your soul and heart perceive, that can lead to the creation of your own Walden, or, as he wrote in his journal while in the midst of writing his most famous work: “As you see, so at length will you say.”

Walking with Thoreau – on Journaling

“Of all strange and unaccountable things, this journalising is the strangest. It will allow nothing to be predicted of it; its good is not good, nor its bad bad. If I make a huge effort to expose my innermost and richest wares to light, my counter seems cluttered with the meanest homemade stuffs; but after months or years I may discover the wealth of India, and whatever rarity is brought overland from Cathay, in that confused heap, and what perhaps seemed a festoon of dried apple or pumpkin will prove a string of Brazilian diamonds, or pearls from Coromandel.”

It was Emerson who first inspired Thoreau to begin writing a journal, which opens on 22 October 1837 with: “What are you doing now?” he asked, “Do you keep a journal?” So I make my first entry to-day.” Thoreau’s journal grew to two million words and was first published in fourteen volumes. Writing in it became a daily task, with very few exceptions. It was where most of the ideas, which appear in his essays and books, first germinated. There was a lengthy process between journal and book. If one works backward from book to journal, one finds: book (published version), preceded by several drafts over a sometimes long period of time, preceded by essays and/or lecture versions of portions, preceded by the journal which could contain several drafts of a sentence. The journal was actually preceded by field notes which were the first written impression before they were transcribed into his journal. Thoreau’s famous line about the “different drummer” began as a vague hint about a drummer in 1839, was adapted several times in his journals over the next few years, appeared in an early essay called “The Service,” before it appeared in his 1851 journal in a version closer to the published form, was revised several more times, and was finally published in the form we know it in 1854 in Walden. “Why should we be in such desperate haste to succeed, and in such desperate enterprises? If a man does not keep pace with his companions, perhaps it is because he bears a different drummer. Let him step to the music which he hears, however measured or far away.”

Writing was a process, sometimes a long process, to get it right. As he wrote to a friend: “Don’t suppose that you can tell it precisely the first dozen times you try. . . Not that the story need be long, but it will take a long while to make it short.”
3) Sketching
Ask your students to sketch the photograph that they like the most. In turn, they can sketch a place that is important to them. Through sketching, some students can express something they might not be able to express in writing.

Walking with Thoreau – on Sketching
“At the steam-mill sand-bank was the distinct shadow of our shadows, -- first on the water, then the double one on the bank bottom to bottom, one being upside down, -- three on all, -- one on water, two on land or bushes.” [Journal 16 August 1854]

Thoreau would not have considered himself an artist, nor do many who look at his journal sketches, but the purpose of journal-sketching is not to create art, although that sometimes happens. The intention is to create a visual link to the past. As Thoreau explained in his journal (10 December 1856): “It is remarkable how suggestive the slightest drawing [is] as a memento of things seen. For a few years past I have been accustomed to make a rude sketch in my journal of plants, ice, and various natural phenomena, and though the fullest accompanying description may fail to recall my experience, these rude outline drawings do not fail to carry me back to that time and scene. It is as if I saw the same thing again, and I may again attempt to describe it in words if I choose.” And as he wrote a few months later: “No pages in my Journal are so suggestive as those which contain a rude sketch.”

VI) POST-VISIT ACTIVITIES
In the process of preparing for and during the visit, we hope your students will become more familiar with the process of close observation and journaling. These two skills are not an end to themselves – they open up a wide range of possibilities for other projects, such as creative writing, art (drawing, sketching, poster making, photography), scientific research projects, and many more. All of this can become part of a longer-term, larger-scale stewardship project that is both relevant to your subject and to your students, as they will be finding, exploring, and celebrating home-places of their own.

Talk to your students about the process that Thoreau underwent studying his own home-place. Discuss Scot Miller’s process of close observation and celebration of Walden through his camera lenses. Encourage your students to find and talk about their own way of finding their ‘Waldens’!

In the classroom, we encourage you to keep using journals (nature and/or reflection!). The projects and assignments might focus on the following:

• Knowledge about the natural world
• Knowledge about patterns of human relationships with nature
• An understanding and appreciation of the philosophy and literature that connect people and nature

Some of the assignment/project ideas can be:
1) **Essays.** Ask your students to write an essay based on the journaling notes taken in the museum. It could be framed as a response to one of the quotes, as an impression of the photographs, or anything else.
2) **Presentations.** Ask your students to present their short essays in the class.

3) **Research Projects.** Assign a research project that can be focused on finding and learning about ‘Waldens’ that exist in your students’ communities. See Attachment J for activities that use mapping as a tool to learn more about one’s home-place. Your students can present their findings to the classroom or the whole school.

4) **Art projects.** Inspiration can be drawn from students’ own home-places. Some ideas might include creating a cognitive map, a photo album or a poster of one’s ‘Walden’ (different media such as drawings, photographs, writing and/or poetry can be used).

5) **Thoreau’s incredibly rich writing can be parceled out into many different themes.** Attachment K, selection of themes derived from Thoreau’s literature, provides you with many of the issues that Thoreau wrote about, and that are still very alive and relevant today. You can use them as an example of the complexity of human nature, and of the world around us.

6) **Stewardship Projects.** If students have identified their ‘Walden’, and it is in need of protection and/or celebration, there are many ways of going about it. First and foremost, though, is developing your students’ sense of place (see this article for a better understanding of what it means - http://www.mtbaker.wednet.edu/tlcf/The%20Sense%20of%20Place.htm).

    Developing school and community trail is one way of celebrating the place where you and your students live. Read Attachment L for concrete ideas of how to go about it. (This document evolved from Walden Woods Project’s conservation and interpretive work on Brister’s Hill trail in Concord, MA (www.walden.org/conservation).)

    Another example of a stewardship practice is a project completed by the Walden Woods Project’s 2004 seminar alumni (“Forbidden Places and Forgotten Spaces - Exploring Interlachen Watershed Area”) with his students. The project made students study closely their home-place and then teach the public about it. Sometimes, increasing the value of the land in people’s eyes might be just as effective as more conventional lobbying for land conservation.

    **Attachment MII** is a unit by 1997 seminar alumni (“One Square Mile Project”) that is interdisciplinary and place-based in nature. This teacher did a great job putting together very practical suggestions for a lesson plan on Thoreau’s literature and process of self-discovery by means of exploring one’s home-place.

**VII) Other Resources**

Some of the following websites might seem disconnected at first. However, after reading the following excerpt from “Teaching Green: The Middle Years” by Tim Grant and Gail Littlejohn, ed. (to order go to www.greenteacher.com), we hope you will begin to see the commonalities:

The fundamentals of interdisciplinary place-based education are:

- Students should have opportunities to develop a personal connection with nature.
- Education should emphasize our connection with other people and other species.
- Education should help students move from awareness to knowledge to action.
- Learning should extend into the community.
- Learning should be “hands-on”.
- Education should integrate subject disciplines.
- Education should be future-oriented.
- Education should include media literacy.
- Education should include traditional knowledge.
- Teachers should be facilitators and co-learners.”
The Walden Woods Project has been a strong believer in the power and effectiveness of such education. WWP had been offering a two-week summer seminar for high school teachers since 1997. Please see Attachments MI and MII for examples of place-based projects done by the seminar alumni. Attachment N provides a selection of place-based and/or interdisciplinary activities from the WWP’s educational newsletters.

*** To learn more about educational programs offered by the Walden Woods Project, including its two-week summer seminar for teachers, focusing on place-based interdisciplinary education, visit us on the web at www.walden.org/education. Curriculum units resulting from the seminars are also available for free on our website. *** To sign up for our quarterly educational e-newsletter, e-mail education@walden.org.
Select Web-Sites

**Humanities**
- [http://edsitement.neh.gov/](http://edsitement.neh.gov/) - The EDSITEment connects to many other Web-sites on humanities, with lesson plans.

**Environmental Education**
- [http://www.envirolink.org/](http://www.envirolink.org/) - EnviroLink is an excellent resource for environmental education.
- [http://www.audubon.org/educate](http://www.audubon.org/educate) - The Audubon Society has great resources on birds and other animals for various class levels.
- [http://www.nwf.org/education/](http://www.nwf.org/education/) - The National Wildlife Federation has an extensive array of educational programs, and the Web-site is a great resource for teachers.
- [www.naaee.org](http://www.naaee.org) - North American Association for Environmental Education
- [www.enviroliteracy.org](http://www.enviroliteracy.org) - Environmental Literacy Council gives great resources to teachers and students to develop environmental literacy.
- [http://re-energy.ca/index.htm](http://re-energy.ca/index.htm) - Renewable Energy Project Kit allows teachers to use energy as a teaching tool in sustainable education.

**Interdisciplinary and Social Reform**
- [http://www.asle.umn.edu/](http://www.asle.umn.edu/) - The Association for Study of Literature and Environment site is very academic containing articles and books on nature writing among other material.
- [www.rootsandshoots.org](http://www.rootsandshoots.org) - Roots & Shoots engages and inspires youth through community service and service learning (founded by Dr. Jane Goodall).
- [www.nationalgeographic.com/xpeditions/activities/](http://www.nationalgeographic.com/xpeditions/activities/) - National Geographic’s Xpeditions offer a variety of interactive interdisciplinary lesson plans.
- [www.responsibleshopper.org](http://www.responsibleshopper.org) - Responsible Shopper provides resources and information for people who want to know more about the products they buy.
- [www.earthday.net/footprint/index.asp#](http://www.earthday.net/footprint/index.asp#) - Earthday Network Web-site provides tools for calculating the ecological impact of your lifestyles, and offers a number of strategies for reducing the impact. (Visit [www.kidsfootprint.org](http://www.kidsfootprint.org) for more lesson ideas.)
- [www.wastefreelunches.org](http://www.wastefreelunches.org) – Learn about tips and suggestions for starting a waste-free lunch program at your school.

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Walden Pond is at the center of a landscape with unique natural and cultural history. The Pond and surrounding Walden Woods were formed as the last glacier retreated from the area, approximately 10,000 to 12,000 years ago. As the glacier melted, a large glacial lake (called nowadays glacial lake Sudbury) formed, covering more than 2500 acres, over what is now Walden Woods. As melting proceeded, the lake caused the deposition of coarse sands over much of its basin. Walden Pond, a kettlehole formation, is itself a glacial relict. This extremely deep lake (the deepest in Massachusetts) resulted from a gigantic block of ice that broke off the trailing edge of the glacier, which was then buried by outwash, the material being washed off the glacier during melting. After the ice block melted, it left behind a deep depression that is filled primarily by ground water, and to a lesser extent, precipitation. The glacial deposits that underlie Walden Woods have had a dramatic effect on the ecology and natural history of the area, and in many ways, the cultural history of Walden Woods and the towns of Lincoln and Concord, Massachusetts.

Natural History

Walden Woods is found very near the confluence of the Assabet River and Sudbury River, which come together to form the Concord River in Concord center. Much of the land in the area of this confluence is excellent farm land because it is in the floodplain of these three rivers. However, the glacial lake deposits that underlie Walden Woods are unsuitable for farming. The poor, sandy soils and rather deep groundwater table of Walden Woods have given rise to a forest dominated by the Northern Pine–Oak forest association. This is distinct from the Oak–Hickory forest association that is typical of the surrounding area. Sugar Maple (Acer saccharum), White Ash (Fraxinus americana), and various other northern hardwood and conifer species occur in lower numbers. The forest understory is composed largely of huckleberry, low-bush blueberry, sheep laurel, and other shrubs that prefer sandy, well-drained soils. There is a diversity of microhabitats throughout Walden Woods, including areas of White Birch (Betula alba), Eastern Hemlock (Tsuga canadensis), and Beech (Fagus grandifolia), as well as springs, ponds, bogs, marshes, and vernal pools. Biodiversity is therefore relatively high despite the poor soils.

Cultural History

Since the earliest days of colonial America, Walden Woods has existed as a component of the local communities – an area of the colony that was identified as particularly poor farm land and therefore set aside as a community woodlot. References to Walden Woods exist in early colonial records, through Thoreau’s days on the shores of Walden Pond in the middle-1800’s, and continuing into the 21st century. The woods were valued for their ability to supply fuel wood and building materials, but were not historically viewed as a significant natural or cultural resource. Their marginal value for supporting the community was reinforced as marginalized people, including freed slaves and migrant workers building the railroad, lived in the woods on the outskirts of Concord society. Not until Henry David Thoreau advocated the preservation of a forest in every town (specifically Walden Woods for Concord) was Walden Woods viewed as an important resource. Indeed, its long history
as a *marginalized landscape* continued well into the 20th century. In the 1930’s, to bypass downtown Concord, the main highway into Boston from the western suburbs was cut through the northern part of Walden Woods. In the 1950’s a municipal landfill would be located within the boundaries of Walden Woods near the northeast corner of the pond, and sand and gravel extraction would scar the land on Brister’s Hill, the former homestead site of Brister Freeman, a freed slave that Thoreau addresses in *Walden*. In the late 1980’s, threatened with the development of a large office complex, the ecological and historical significance of Walden Woods came to light, and helped spark a significant effort to protect the land surrounding and supporting Walden Pond.

**Conclusion**

Walden Woods is a unique ecological and cultural resource, the history of which is intimately tied to the glacial processes that led to its formation. Though long undervalued, it is the landscape that nurtured Henry David Thoreau’s vision and writing that ultimately led to the conservation movement. As he so well put it in his journals:

“All town should have a park, or rather a primitive forest, of five hundred or a thousand acres, where a stick should never be cut for fuel, a common possession forever, for instruction and recreation. We hear of cow-commons and ministerial lots, but we want men-commons and lay lots, inalienable forever. Let us keep the New World new, preserve all the advantages of living in the country. There is meadow and pasture and wood-lot for the town’s poor. Why not a forest and huckleberry-field for the town’s rich? All Walden Wood might have been preserved for our park forever, with Walden in its midst, and the Easterbrooks Country, an unoccupied area of some four square miles, might have been our huckleberry-field.” [Journal, 15 October 1859]
ATTACHMENT B
Additional Optional Reading List

Emerson’s Essays
“Nature”
“The American Scholar”
“The Divinity School Address”
“Self-Reliance”
Poem “The Concord Hymn”

Thoreau’s Natural History Essays:
  o “Autumnal Tints”
  o “Wild Apples”
  o “Huckleberries”
  o “Succession of Forest Trees”
  o “A Winter Walk”

Thoreau’s Reform Essays:
  o “Civil Disobedience”
  o “A Plea for Captain John Brown”
  o “Slavery in Massachusetts”

Thoreau’s Books:
  o “Faith in a Seed: The Dispersion of Seeds and Other Late Natural History”
  o “Wild Fruits: Thoreau’s Rediscovered Last Manuscript”

Ecology, History, Natural History, Other
  o “Uncommon Ground: Toward Reinventing Nature” by William Cronon
  o “Reclaiming the Commons” by Brian Donahue
  o “The Ecology of Commerce: A Declaration of Sustainability” by Paul Hawken
  o “Emerson in his Journals” by Joel Porte, ed.
  o “Thoreau’s World and Ours” by Edmund Schofield and Robert C. Baron, ed.
  o “The Heart of Thoreau’s Journals” by Odell Shepard, ed.
"Nature never makes haste; her systems revolve at an even pace. The bud swells imperceptibly, without hurry or confusion, as though the short spring days were an eternity. … The wise man is restful, never restless or impatient. He each moment abides there where he is …”

- *Journal*, 17 September 1839

"It would be worth the while to ask ourselves weekly, Is our life innocent enough? Do we live *inhumanely*, toward man or beast, in thought or act? To be serene and successful we must be at one with the universe.”

- *Journal*, 28 May 1854

“… the ferns of various species and in various stages, some now in their most perfect and beautiful condition, completely unfolded, tender and delicate, but perfect in all their details, far more than any lace work …as if pressed by some invisible flat-iron in the air.

- *Journal*, 26 May 1853

“The simplest and most lumpish fungus has a peculiar interest to us, compared with a mere mass of earth, because it is so obviously organic and related to ourselves, however mute. It is the expression of an idea; growth according to a law; matter not dormant, not raw, but inspired, appropriated by spirit.

- *Journal*, 10 October 1858

"I noticed the other day a little white birch a foot high which had sprung up in the gutter on the main street in front of my house, and it looked about as strange there as it would in State Street in Boston. … It suggested how surely and soon the forest would prevail here again if the village were deserted.”

- *Faith in a Seed*, 45

"You must love the crust of the earth on which you dwell more than the sweet crust of any bread or cake. You must be able to extract nutriment out of a sand-heap. You must have so good an appetite as this, else you will live in vain.”

- *Journal*, 25 January 1858

"Shall I not have intelligence with the earth? Am I not partly leaves and vegetable mould myself?”

- *Walden*
"The scenery of Walden is on a humble scale, and, though very beautiful, does not approach to grandeur, nor can it much concern one who has not long frequented it or lived by its shore; yet this pond is so remarkable for its depth and purity as to merit a particular description."

- *Walden*,

“When you come to observe faithfully the changes of each humblest plant, you find that each has, sooner or later, its peculiar autumnal tint; and if you undertake to make a complete list of the bright tints, it will be nearly as long as a catalogue of the plants in your vicinity.”

- "Autumnal Tints"
1) The scarlet oak leaf! What a graceful and pleasing outline! a combination of
graceful curves and angles. These deep bays in the leaf are agreeable to us as
the thought of deep and smooth and secure havens to the mariner. But both
your love of repose and your spirit of adventure are addressed, for both bays
and headlands are represented; – sharp-pointed rocky capes and rounded
bays with smooth strands. [Journal, 11 November 1858]

2) See how artfully the seed of a cherry is placed in order that a bird maybe
compelled to transport it. It is placed in the very midst of a tempting
pericarp, so that the creature that would devour a cherry must take a stone
into its mouth. . . . Thus a bird’s wing is added to the cherry-stone which was
wingless, and it does not wait for winds to transport it. [Journal, 1 September
1860]

3) The lupine is now in its glory. It is the more important because it occurs in
such extensive patches, even an acre or more together, and of such a pleasing
variety of colors, – purple, pink, or lilac, and white, – especially with the sun
on it, when the transparency of the flower makes its color changeable. It
paints a whole hillside with its blue. . . Its leaf was made to be covered with
dewdrops. I am quite excited by this prospect of blue flowers in clumps with
narrow intervals. Such a profusion of the heavenly, the elysian, color, as if
these were the Elysian Fields. They say the seeds look like babies’ faces, and
hence the flower is so named. No other flowers exhibit so much blue. That is
the value of the lupine. The earth is blued with them. [Journal, 5 June 1852]

4) I thought to-day that it would be pleasing to study the dead and withered
plants, the ghosts of plants, which now remain in the fields, for they fill
almost as large a space to the eye as the green have done. They live not in
memory only, but to the fancy and imagination. [Journal, October 1850]

5) A tree seen against other trees is a mere dark mass, but against the sky it has
parts, has symmetry and expression. . . . The thousand fine points and tops
of the trees delight me; they are the plumes and standards and bayonets of a
host that march to victory over the earth. The trees are handsome towards
the heavens as well as up their boles; they are good for other things than
boards and shingles. [Journal, 26 January 1852]

6) Looking down into the singular bare hollows from the back of hill near here,
the paths made by the cows in the sides of the hills, going round the hollows,
made gracefully curving lines in the landscape, ribbing it. The curves, both
the rising and falling of the path and its winding to right and left, are
agreeable. [Journal, 3 August 1852]

7) It is a good day to study lichens. The view so confined it compels your
attention to near objects, and the white background reveals the disks of the
lichens distinctly. They appear more loose, flowing, expanded, flattened out,
the colors brighter for the damp. The round greenish-yellow lichens on the
white pines loom through the mist (or are seen dimly) like shields whose
devices you would fain read. The trees appear all at once covered with this
crop of lichens and mosses of all kinds, – flat and tearful are some, distended
by moisture. This is their solstice, and your eyes run swiftly through the mist
to these things only. On every fallen twig, even, that has lain under the snows, as well as on the trees, they appear erect and now first to have attained their full expansion. Nature has a day for each of her creatures, her creations. [Journal, 31 December 1851]

8) The question is not what you look at, but what you see. [Journal, 5 August 1851]

9) Many an object is not seen, though it falls within the range of our visual ray, because it does not come within the range of our intellectual ray, i.e., we are not looking for it. So, in the largest sense, we find only the world we look for. [Journal, 2 July 1857]

10) [A farmer told me in all sincerity that, having occasion to go into Walden Woods in his sleigh, he thought he never saw anything so beautiful in all his life, and if there had been men there who knew how to write about it, it would have been a great occasion for them. [Journal, 18 January 1859]

11) I am always struck by the centrality of the observer’s position. He always stands fronting the middle of the arch, and does not suspect at first that a thousand observers on a thousand hills behold the sunset sky from equally favorable positions. [Journal, 10 July 1851]

12) Many a man, when I tell him that I have been on to a mountain, asks if I took a glass with me. No doubt I could have seen further with a glass, and particular objects more distinctly, – could have counted more meeting-houses; but this has nothing to do with the peculiar beauty and grandeur of the view which an elevated position affords. [Journal, 20 October 1852]

13) There is some advantage, perhaps, in attending to the general features of the landscape over studying the particular plants and animals which inhabit it. [Journal, 21 August 1851]

14) Surely I might take wider views. The habit of looking at things microscopically, as the lichens on the trees and rocks, really prevents my seeing aught else in a walk. [Journal, 5 March 1852]

15) How much more game he will see who carries a gun, i.e. who goes to see it! Though you roam the woods all your days, you never will see by chance what he sees who goes on purpose to see it. [Journal, 28 February 1856]

16) Every man thus tracks himself through life, in all his hearing and reading and observation and travelling. His observations make a chain. The phenomenon or fact that cannot in any wise be linked with the rest which he has observed, he does not observe. By and by we may be ready to receive what we cannot receive now. [Journal, 5 January 1860]

17) I find it good to be out this still, dark, mizzling afternoon; my walk or voyage is more suggestive and profitable than in bright weather. The view is contracted by the misty rain. . . . My thoughts are concentrated; I am all compact. . . . I am compelled to look at near objects. All things have a soothing effect; the very clouds and mists brood over me. My power of observation and contemplation is much increased. My attention does not wander. [Journal, 7 November 1855]

18) Be not preoccupied with looking. Go not to the object; let it come to you. [Journal, 13 September 1852]

19) There is no such thing as pure objective observation. Your observation, to be interesting, i.e. to be significant, must be subjective. [Journal, 6 May 1854]
ATTACHMENT E
Thoreau Quotes on variety of topics

a. How many a man has dated a new era in his life from the reading of a book. [Walden]
b. Things do not change; we change. [Walden]
c. I would remind my countrymen that they are to be men first, and Americans only at a late and convenient hour. ["Slavery in Massachusetts"]
d. Men have a singular desire to be good without being good for anything, because, perchance, they think vaguely that so it will be good for them in the end. [A Week on the Concord and Merrimack Rivers]
e. It would be worth the while if in each town there were a committee appointed to see that the beauty of the town received no detriment. If we have the largest boulder in the county, then it should not belong to an individual, nor be made into door-steps. [Journal, 3 January 1861]
f. The hero is commonly the simplest and obscurest of men. ["Walking"]
g. Men rush to California … as if the true gold were to be found in that direction; but that is to go to the very opposite extreme to where it lies. ["Life without Principle"]
h. I do believe in simplicity. It is astonishing as well as sad, how many trivial affairs even the wisest thinks he must attend to in a day; how singular an affair he thinks he must omit. When the mathematician would solve a difficult problem, he first frees the equation of all incumbrances, and reduces it to its simplest terms. So simplify the problem of life, distinguish the necessary and the real. Probe the earth to see where your main roots run. [Thoreau to H.G.O. Blake, 27 March 1848]
i. Could a greater miracle take place than for us to look through each other's eyes for an instant? [Walden]
j. To say that a man is your Friend means commonly no more than this, that he is not your enemy. [A Week on the Concord and Merrimack Rivers]
k. Under a government which imprisons any unjustly, the true place for a just man is also a prison. ["Civil Disobedience"]
l. If I am not I, who will be? [Journal, 9 August 1841]
m. Say what you have to say, not what you ought. Any truth is better than make-believe. [Walden]
String Journaling Activity

By Janet Burne, Reading High School
WWP 2000 Approaching Walden Alumni

String Journals

This is a piece of string. It will mark out a little corner of the world for you and plunge you into an intimate connection with Nature, that omnipresent focus of American writers and painters from the beginning of this great experiment. As you know, (I'm sure), close observation is at the heart of good reading, good writing, good thinking. Sometimes in our hurried lives, we forget to observe closely our natural world and to tune into our environment. This project will provide you the opportunity to remedy the deleterious effects of modern life.

Procedure:

1. Make a circle of your string.
2. Take it outside your home, somewhere you can visit easily and often.
3. Secure it to the ground as a circle. You can ring it around a tree, put it under a bush, loop it around a section of garden or lawn, etc.
4. Make friends with your circle. Visit it a minimum of once every two weeks, for a minimum of twenty minutes, alone.
5. When you visit it: observe, think, respond.
6. Record your thoughts in a single subject spiral notebook, standard size, in the form of an informal essay that follows wherever your mind wanders. Suggested length: 300 words or longer.

The Burne Rules of Submission to Make Life Easy for the Teacher and Difficult for the Student

7. Submit your “String Journal” every other Monday.
   Heading: Name, String Journal #:, Date Submitted:, Title:
   Absence of correct heading = loss of 10 points. Needless loss, I might add…
8. Submit entire notebook containing all entries, properly headed. Failure to follow these directions will result in an unacceptable document.
9. Journals will be graded as follows: A = You have surpassed all my expectations in an outstanding manner; B = You have fulfilled the expectations of the assignment with flair, imagination, originality, or some other above average quality; C = You have fulfilled the expectations of the assignment; F = unacceptable because the journal does not meet my expectations; (Possible reasons for unacceptable could include sloppy writing, lack of length, banal thinking, lack of observations, lack of connections to the experience of being outside, etc.)
10. Journals that are late receive a zero. “Late” means longer than two minutes after the start of class. (Yes, I really mean that!)
11. The average of your string journal grade will be a major grade for the quarter.

One Final Note: This assignment is an outside experience. You may write inside from notes taken while outdoors, but you may not accomplish this assignment by looking through a window, sipping cocoa while the wind blows!! DRESS FOR THE WEATHER. (Need I remind you that “Honors” implies academic honesty about such matters?)
Walking with Thoreau – on Close Observations

“The question is not what you look at, but what you see.” [Journal 5 August 1851]

“No method nor discipline can supersede the necessity of being forever on the alert. What is a course of history, or philosophy, or poetry, no matter how well selected, or the best society, or the most admirable routine of life, compared with the discipline of looking always at what is to be seen? Will you be a reader, a student merely, or a seer?” [Walden “Sounds”]

In his journal Thoreau suggested: “Take one of our selectmen and put him on the highest hill in the township, and tell him to look! What, probably, would he see? What would he select to look at?” Observation, the art of seeing, is a deliberate act of creation, personal and selective, as well as objective. But it is also a long process. To reach an understanding you need to piece together, like a puzzle or a mosaic, observations over a period of time. “Most that is first written on any subject,” Thoreau wrote in 1859, “is a mere groping after it, mere rubble-stone and foundation. It is only when many observations of different periods have been brought together that he begins to grasp his subject and can make one pertinent and just observation.” It is what you finally see in its truest sense, not what your eye scans but what your soul and heart perceive, that can lead to the creation of your own Walden, or, as he wrote in his journal while in the midst of writing his most famous work: “As you see, so at length will you say.”

Walking with Thoreau – on Sketching

“At the steam-mill sand-bank was the distinct shadow of our shadows, -- first on the water, then the double one on the bank bottom to bottom, one being upside down, -- three on all, -- one on water, two on land or bushel.” [Journal 16 August 1854]

Thoreau would not have considered himself an artist, nor do many who look at his journal sketches, but the purpose of journal-sketching is not to create art, although that sometimes happens. The intention is to create a visual link to the past. As Thoreau explained in his journal (10 December 1856): “It is remarkable how suggestive the slightest drawing [is] as a memento of things seen. For a few years past I have been accustomed to make a rude sketch in my journal of plants, ice, and various natural phenomena, and though the fullest accompanying description may fail to recall my experience, these rude outline drawings do not fail to carry me back to that time and scene. It is as if I saw the same thing again, and I may again attempt to describe it in words if I choose.” And as he wrote a few months later: “No pages in my Journal are so suggestive as those which contain a rude sketch.”
**ATTACHMENT G**  
Close Observations - Worksheet

**I** Look for signs of:

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**II** Look for signs of

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<td>Succession</td>
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<td>Glacial history</td>
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<td>Nature’s cycles</td>
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<td>Reflections and Light</td>
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<td>Forest composition</td>
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<td>Specialization and function in nature</td>
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<td>Watershed</td>
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Walden Pond and the surrounding Walden Woods were formed as the last glacier retreated from the area. As the glacier melted, a large lake formed over what is now Walden Woods. It caused the deposition of course sands over much of the lake basin which have had a dramatic effect on the ecology of the area. Walden Pond, a kettlehole formation, is itself a glacial relict. This extremely deep lake (the deepest in Massachusetts) resulted from a gigantic block of ice that broke off the trailing edge of the glacier, which was then buried by the material being washed off the glacier during melting. After the ice block melted, it left behind a deep depression that is filled primarily by ground water, and to a lesser extent, precipitation. The forest that is known as Walden Woods is the result of the land’s glacial history.

The ecological processes occurring on the landscape are deeply influenced by the glacial past, and are evidenced on the land and in the photographs of Scot Miller. Like the landscape itself, the photographs show evidence of the glacial history of the area, of the ecological processes that have been occurring over the past 12,000 to 15,000 years, and of the biological diversity that has resulted from those processes. The following ecological concepts can be found in many of the photos presented in Thoreau’s Walden.

**Succession**
Succession is the ecological theory founded in part by Henry D. Thoreau’s observations of changes in the plant community after disturbances. This is a natural process that follows any small- or large-scale disturbance. Short-lived, pioneer species that are able to tolerate nutrient-poor soils colonize an area, help build nutrient resources in the soil, and are replaced by heartier species over time. Ultimately a climax community is achieved where successional changes cease until another disturbance “resets the clock.”

**Glacial history**
Though much more challenging to see, both on the land and in pictures, evidence of glaciation can be found in these images. Sand deposits, gravel and stones moved by ice and melt water, and landforms including kettlehole depressions and the more obvious hills surrounding the pond, are all evidence of the glaciers.

**Nature’s cycles**
Evident in many of the exhibit’s photographs are natural cycles. The beauty of the New England fall is captured in many of Scot’s images, and is dramatic evidence of seasonal change and the cycling of nutrients from the living leaves of trees to the soil when leaves are dropped in dramatic fall fashion. Less obvious, but equally important in natural cycling is the role that fungi play in decay and nutrient cycling. Many images of mushrooms are included in the exhibit and provide beautiful examples of the breakdown of material.

**Reflections and Light**
Critical to biological function and to the composition and character of our surroundings is sunlight; so, too, for photography. Winter scenes, evening and twilight, fall reflections, and light filtered through trees or water all help illustrate the dynamic nature of light and provide evidence of the importance of light in the ecology of the landscape.
**Forest composition**

Walden Woods is located in the temperate deciduous forest, a large biome that covers much of eastern North America, as well as parts of Europe and Asia. At a global scale, the temperate deciduous forest is quite unique in its composition of broad-leaved, deciduous tree species as the dominant climax vegetation. At increasingly smaller scales, though, there is great diversity in the species composition and character of forests within that biome. Walden Woods, because of its glacial history and underlying poor, sandy soils, comprises a mix of tree species that is somewhat unique to the region. Dominated by White Pine (*Pinus strobus*) and oak, the character of the forest is an important aspect of the unique value of Walden Woods. The photographs in *Thoreau's Walden* show the forest composition very well. Examining pictures of fallen leaves or of forest scenes will yield interesting information about forest composition at a fine scale, and will facilitate consideration of what factors affect forest composition at various spatial scales.

**Specialization and function in nature**

Everything in nature has a purpose, and ultimately, form follows function. The unique, asymmetrical form of a ladyslipper's flower is the result of co-evolutionary specialization between the flower and its pollinator. The photos in this exhibit are replete with examples of specialization of form that leads to the rich diversity of life. This diversity belies the diversity of functions and the ecological concept of niche that can be explored through the exhibit.

**Watershed**

Water is a fundamental requirement of life, but the dynamics of water on the landscape are easily overlooked. Water bodies form as a result of the movement of water across the land, both visible to the casual observer, and hidden from direct view. Walden Pond is an extremely deep kettle lake of approximately 65 acres. The area of land over which rain water and snow melt collect in the pond (its watershed) is quite small, and can not account for the volume of water contained in the pond. The concepts of watershed, ground water, water budgets, and many associated topics (e.g., soil permeability, pollution, water conservation) can all be explored after considering the pond and its surrounding watershed.
Walking with Thoreau – on Journaling

“Of all strange and unaccountable things, this journalising is the strangest. It will allow nothing to be predicted of it; its good is not good, nor its bad bad. If I make a huge effort to expose my innermost and richest wares to light, my counter seems cluttered with the meanest homemade stuffs; but after months or years I may discover the wealth of India, and whatever rarity is brought overland from Cathay, in that confused heap, and what perhaps seemed a festoon of dried apple or pumpkin will prove a string of Brazilian diamonds, or pearls from Coromandel.”

It was Emerson who first inspired Thoreau to begin writing a journal, which opens on 22 October 1837 with: “What are you doing now?’ he asked, ‘Do you keep a journal?’ So I make my first entry today.” Thoreau’s journal grew to two million words and was first published in fourteen volumes. Writing in it became a daily task, with very few exceptions. It was where most of the ideas, which appear in his essays and books, first germinated. There was a lengthy process between journal and book. If one works backward from book to journal, one finds: book (published version), preceded by several drafts over a sometimes long period of time, preceded by essays and/or lecture versions of portions, preceded by the journal which could contain several drafts of a sentence. The journal was actually preceded by field notes which were the first written impression before they were transcribed into his journal. Thoreau’s famous line about the “different drummer” began as a vague hint about a drummer in 1839, was adapted several times in his journals over the next few years, appeared in an early essay called “The Service,” before it appeared in his 1851 journal in a version closer to the published form, was revised several more times, and was finally published in the form we know it in 1854 in Walden. “Why should we be in such desperate haste to succeed, and in such desperate enterprises? If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away.”

Writing was a process, sometimes a long process, to get it right. As he wrote to a friend: “Don’t suppose that you can tell it precisely the first dozen times you try. . . Not that the story need be long, but it will take a long while to make it short.”

ATTACHMENT I
Journaling Prompt Questions - Worksheet

a) Did the meaning of some quotes have changed for you after you saw the photograph of Walden Woods? How and why?

b) How is this habitat different from the place where you live? What are the differences?

c) How do you think it feels to be in this place at the time the photograph was taken – what would the surrounding temperature, smells, sounds feel like?

d) Do you recognize the trees in the photographs?

e) How are water bodies where you live different from Walden Pond? Do you know why?

f) Think of reasons responsible for why your place looks different from Henry’s place. (Think of natural AND cultural histories of your home-place.)

g) How does nature change season where you live? How is it different from seasons in the North East?

h) What do you infer from the following quote?

“[Walden] The scenery of Walden is on a humble scale, and, though very beautiful, does not approach to grandeur, nor can it much concern one who has not long frequented it or lived by its shore; yet this pond is so remarkable for its depth and purity as to merit a particular description.”

The scenery of Walden is on a humble scale, and, though very beautiful, does not approach to grandeur, nor can it much concern one who has not long frequented it or lived by its shore; yet this pond is so remarkable for its depth and purity as to merit a particular description.” [Walden]
Memory, Community, and Future Mapping: Getting to Know Your Home Landscape

Mapping is a wonderful entry-point for any discipline to engage students in learning about home place. It has the potential to engage students in activities that help them see connections between who they are and where they live.

We have included several different kinds of mapping activities here. Adapt and implement as appropriate to your setting. If feasible, visit some of the locations identified by students and use them for the various mapping exercises.

The Memory Place Map
This activity challenges students to draw from their own experience of home place, and explore the ways in which their own memory and sense of place is similar and different from other students.

• Have each student put an “X” in the middle of a piece of paper. This represents their house.
• In the upper right hand corner put an arrow pointing up indicating north. (Students may or may not know which way is north from their homes, but challenge them to figure it out.)
• Have your students draw the nearest body/ bodies of water to their home - a river, stream, lake, pond, the ocean - in the right direction (North, South, East, or West).
• Have your students draw in any and all topographical features, hills, mountains, gulley, etc. as best they can remember.
• Have them attempt to put in the main roads that they take to get places from their house.
• Have them draw in any other additional landmarks that they see every day.
• Have them draw in places that are especially meaningful to them.
• Have them draw in human activities in this landscape.
• Students should then look at an aerial, topographic, or both kinds of map of their community and identify where they live.
• Have them look carefully at the map and see if they can find the objects they drew on their memory maps.
• Have them draw in places that are especially meaningful to them.
• Have them draw in human activities in this landscape.
• Have them draw in topographical features, hills, mountains, gulley, etc. as best they can remember.
• Have them attempt to put in the main roads that they take to get places from their house.
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• Have them look carefully at the map and see if they can find the objects they drew on their memory maps.
• Have them draw in places that are especially meaningful to them.
• Have them draw in human activities in this landscape.

Note: Mapping exercises are meant to facilitate children’s active engagement in their school studies. It is not meant to intimidate students who do not think they can draw. Maps created by them are special in that they can be as simple or complicated, schematic or abstract, as they want them to be; and the best of all - it is the student’s own representation of their own place.

Additional resource:
www.watershedlegacy.com/tool.html Watershed Legacy; Watershed Wisdom. This website directs students through a similar kind of mapping exercise using watershed as an organizing principle.

Layered Community Mapping
• Using an aerial or topographic map of your students’ community have your students identify with three different colored pins or sticky arrows, three different kinds of places on the map:
  1) Places they know well and love
  2) Places they see a lot but know very little about
  3) Places they know nothing about
• Have the students then write on a separate piece of paper something about each of the three choices.
• When everyone has identified their places and written their thoughts, look again closely at the map.
• Who shares places that they know and love?
• Who can tell others about places they know little or nothing about?
• Students should be encouraged to share their thoughts about the places they identified and to discuss how some of their thinking changed by sharing with others who knew the community somewhat differently.

Additional resources:
National Geographic Xpeditions: Geo-Generations Activity: Community Mapping: Creating a Sense of Place. Jane McRae
Future Visioning Mapping

- Using an aerial or topographic map of your students’ community have your students identify their neighborhood with a colored dot.
- Ask them on a separate piece of paper to write three things about the neighborhood:
  1) What they most love or admire about it; what makes it a neighborhood for them
  2) What they would change about that place if they could; what takes away from their experience living in that place?
  3) What would they like their neighborhood to look like in ten years? In twenty years?
- Have them discuss favorite and least favorite components of neighborhoods.
- Have them talk about their future visions and think really hard about what it would take to achieve these visions.

Note: We hope that these exercises will prompt more awareness and appreciation by students of places where they live, hopefully followed by active stewardship (See our Website Resources for more ideas on Active Stewardship).

Additional resources:

- Color Landform Atlas of the United States - contains contemporary shaded relief, county map, black and white, satellite image and 1895 maps for each USA state.
- David Rumsey Historical Map Collection - focuses on rare 18th and 19th century North and South America maps and other cartographic materials.
- E-Podunk - The Power of Place - a little bit of history and statistics on virtually every town and city in the USA.
- Globe Xplorer - aerial and Satellite international maps (commercial website).
- MassGIS - different maps of Massachusetts are available for free in different formats, colors, resolutions, etc. The best resource for MA maps.
- NASA WorldWind - allows any user to zoom from satellite altitude into any place on Earth, leveraging high resolution to experience Earth in 3D.
- National Geographic Expeditions on-line lesson - asks students to design a web site for their own town considering/researching noteworthy aspects of it (example of Los Angeles teenagers website is given).
- National Geographic Map Machine - view USA maps by categories (e.g. population, climate, etc.).
- Perry-Castañeda Library Map Collection - links to historical maps of the world from other websites.
- TerraServer - provides good USA maps, but one needs subscription to zoom in well (commercial website).
- World Heritage List (UNESCO) - has a map of places declared as World Heritage properties.

The mapping exercises are derived and based upon materials and suggestions in:
ATTACHMENT K
Selection of themes derived from Thoreau’s literature

Literature
- Transcendentalism
- History
- Abolitionism
- Freedom – personal and societal
- Journaling

Land
- Natural History
- Indians
- Land Use History
- Theory of Tree Succession
- Wildness and Wilderness

Legacy
- Education: Interdisciplinary Education and Place-based Education
- Social Justice
- Environmental Justice
- Civil Disobedience
- Walking/Journey and Reflection
- Finding Your Own Walden
ATTACHMENT L
Notes on Developing School and Community Trails

On your school grounds, community vacant lots, local parks and conservation lands, you can find opportunities for individual teachers or teaching teams and students to create imaginative trails in the spirit of Thoreau’s Path on Brister’s Hill. Low budget trails for permanent or short-term use can be patterned after Thoreau’s Path by using the words of local or national writers, historians, naturalists, or social activists to tell the story or stories of your community. A single voice or several can equally succeed. Student interviews with elderly town residents, for example, will give you vivid and meaningful quotations. The local library will yield others.

A contemporary path using students’ poems or journal entries reflecting on the chosen site or local area can be put together by a class, perhaps working in small teams. A mix of quotations, which include students, teachers, and community residents, makes for a genuine community project whether it’s placed on school grounds or elsewhere on town open space. Your town’s conservation commission is a helpful place to start if you’d like to develop a trail outside your school grounds. Your local town newspaper can help your students promote it. To announce its completion, students might write their own press release and plan an opening event.

The quotations, from whatever source, can be printed from a copier and mounted on foam core or given a plasticized finish. Art work could accompany them. These can be used for a short-term “exhibit trail” for a few weeks for the school community or to test what you propose for a permanently marked trail. Longer term, words painted or carved in wood work well. Your local vo-tech school might be interested in implementing this if your school hasn’t the resources. Roofing slates are natural materials that last for years on which quotations can be painted. We’ve found that white paint against the dark gray slate is very effective. Your art department and its students might be interested in designing signage. Maps of the path, as well as brochures, can be student-generated. Student teams can give tours.

It’s important for to keep in mind an overall objective (whether it’s a new trail or quotations placed along an old one).

- Do you want to help bring your local history onto a particular piece of land?
- Do you want to honor a local citizen, living or dead, or a group?
- Do you want to interest others in conservation and learning to observe the natural world or in protecting a piece of land jeopardized by unsuitable development?

Trails can be thematically based. Nature and conservation is an obvious theme, with students identifying trees, shrubs, listing birds and other wildlife observed, etc.

You can choose environmental history, social history, or literature as overarching themes, with writings especially selected to reflect or echo the visual scene.

Figure out with your students a place and a theme that connect well and that is exciting and compelling to you. Researching your theme and its ramifications and suitability for your particular community are essential to success and are an integral part of the learning experience.

Stay in touch with the Walden Woods Project! As our staffing permits, we want to help you with ideas for development and implementation. Don’t hesitate to contact us throughout the year at www.walden.org or education@walden.org.
Bill Goncalo is an American Literature and Creative Writing teacher at Bishop Connolly High School in Fall River, MA, who attended Walden Woods Project’s 2004 *Approaching Walden Seminar*. His experience at the seminar led to the creation of a unique, place-based project. In September of 2004, Bill Goncalo went back to school re-energized to craft this project for his sophomore high school students. The unit, called “Forbidden Places and Forgotten Spaces: Exploring Interlachen Watershed Area,” involved his students in an exploration of Interlachen Island (which is officially closed to the public as it is part of a protected watershed and Municipal Water Supply) and an abandoned 19th century ice-house located on the island.

Bill wanted his students to think about and answer the following questions: How do we find value in our own communities and home towns? How do we communicate this value? How do we educate the community about the value of its past and its natural resources?

The students made several trips to the Interlachen property, exploring its rich natural and cultural history, videotaping and mapping it, writing papers, and making presentations. This work led to a culminating activity – leading tours of Interlachen for the people of Fall River. On an early June Saturday, more than 200 residents showed up to tour the property and learn about its past. They met eight groups of enthusiastic high school students who took people on tours and informed them about the property, the former horse stable and ice house, and discussed other issues including ice-harvesting during the 19th century, and the fate of some of the estates formerly located on the island.

All in all, the year’s worth of work culminated in the event that was real and relevant to the students. Students were recognized for their ability to conduct meaningful research and for their contribution to the community. Their reactions were best summed up by student Samantha Rabbitt who remarked, "After Project Interlachen, I felt good about bringing an all but lost piece of history to my community. The whole project taught us the importance of keeping local history, culture, and treasures alive… I now see Interlachen as Fall River's Walden. My Walden."

To read more *Approaching Walden* curriculum units from 2004 and other years, visit us on the web at the [http://www.walden.org/education](http://www.walden.org/education)
ONE SQUARE MILE PROJECT

Genesis: I taught a course at Weston High during the 1970's entitled World Literature. It was a heady time for high school students, as the societal/college activism of the 1960's finally reached high schools. Students at my school "adopted" a school in the Andes, problems to be solved were national in character, and in my course we necessarily looked outside of the country. But I felt then that this emphasis was "too much, too soon": students hardly knew the town in which they lived, and that by looking outward without a firm sense of where they came from, they were more social dilettantes than committed reformers. I wanted them to know themselves before they set out to change the world, and so I set up a One Square Mile assignment much as it appears here. It worked reasonably well, although I sensed students wondered as to the validity of the assignment in terms of the course they had signed up for. In time, I no longer taught that particular course, and my One Square Mile assignment fell by the wayside.

Fast forward now to the Thoreau Institute of the summer of 1997. Thoreau's sense of place was at the core of our studies: the rationale was that the place explained the man, who, in turn, made use of the place as his bedrock, laboratory, inspiration, and guiding light. As Thoreau urged his readers to "work and wedge our feet downward . . . till we come to a hard bottom and rocks in place, which we can call reality, and say, This is, and no mistake . . . " and which Thoreau did in Concord, so all of us could replicate his actions in our own home locales. A light went off in my head: the One Square Mile project had found its natural home!

What class: Jr./Sr. elective in American Literature, in conjunction with reading Thoreau. (The assumption is that sense of place is a vital element in understanding Thoreau.)

Pre-assignment: Pass out the sheet with Thoreau excerpts on observing one's home environment (as selected from THE THOUGHT OF THOREAU, The Edwin Way Teale Library of Nature Classics, "On Travel and Staying at Home"). Inquire of students as to how much they know about the history of their homes, streets, neighborhoods. Consider the question: why should one know about where she/he lives.
Time frame: Assign the project with a one month due date. After the class chooses a One Square Mile, allow several days for research and then discuss in class the range of possibilities for fulfilling the requirements of the assignment.

Assignment: Have the class choose a one square mile plot of Weston: use a map of the town and a grid measuring one square mile. Move the grid to all possible locations, and allow students to discuss advantages/disadvantages of each site before voting (it's possible that the vote should be held after some on-site exploring is done). Then, assign students, either singly or in pairs if they choose, the task of rendering the One Square Mile real and meaningful: to wedge their feet into it, as it were, and find what they come to as real. I want them to express what they find in any form of their choosing and what is appropriate for their discovery. A literary composition describing the beauty of the area could be written, or a poem in the same vein. A fictional story about an inhabitant from 200 years earlier could be submitted. A statistical study could be done, be it of traffic patterns, housing/building types, flora or fauna. A photographic essay would be acceptable, as would an oil painting of some feature of the One Square Mile, or a collage. A scale-model representation could be constructed; perhaps even a sculpture made from materials indigenous to the One Square Mile, or a soil analysis with an explanation as to the importance of such for land usage could be done. I am open to any and all possibilities: my aim is to encourage creativity, enthusiasm, and originality within the larger purpose of having students present an essence of the One Square Mile that is important to them. Students are limited only by their own imaginations. The finished products will be shared with the entire class, so that students may gain an appreciation of a variety of approaches to an assignment. I will continually emphasize that the project should above all convey a sense of place, and that their presentations should make clear the vital connection between themselves and the One Square Mile.

Possible tie-ins: Social studies and/or town historical commission: a history of the One Square Mile or portion thereof.
Photography: photographic essay of the One Square Mile.
Mathematics: statistical analyses of patterns of daily life in the One Square Mile, e.g., traffic, land use, number and types of buildings.
Art: painting/drawings/collage representations of the One Square Mile.
Science: soil analysis and significance of such.
Technical drawing: topographical map or historical maps of the One Square Mile.
Purpose: To make students observers of their home town just at the time their focus is away on colleges and travels. To allow students to work alone or in pairs on a project which can take advantage of individual strengths and interests in the submitting of a final product in almost any form (thus, those for whom writing is more difficult, they will have the option of submitting their work in non-written form). To allow for student initiative and creativity, and to allow them to draw upon information and skills learned in other classes. To encourage self-discovery. To provide a challenging/fun change-of-pace from regular composition assignments. To encourage students to appreciate other approaches to the same assignment.

Outcomes: To appreciate Thoreau's sense of place.
To learn about one's own place, and, hence, about oneself.
To capitalize upon student interests and creativity.
To foster a sense of class involvement.
To realize student ownership of an assignment.
To change the pace of the classroom.

Follow-up assignment: For their next composition, have the students write about their own personal special places, having them explain the underlying significance of these.
A Way of Introducing Students to Thoreau

1. Pass out paper and have each student by himself and without telling others write a completion to the statement "A man is rich ..." with the goal of defining what being rich means.

2. Collect papers, adding in 2 more definitions:
   "A man is rich in proportion to the number of things which he can afford to let alone." WALDEN, Chapter 2
   "A man is rich if his income is greater than his needs."

3. Read in random order the statements and discuss appropriateness of responses. Consider which ones say more or less the same. Determine what values each statement reflects.

   OR

   Put all the statements on display and classify and criticize and discuss and determine the values underlying each.

4. Assign any reading by Thoreau, keeping in mind the previous discussion.

A variation would be as follows: after each student has generated his/her own completion to the proposition, divide the class into 4 or 5 groups, and have each group arrive at a consensus by discussing their individual completions, but keep each decision within the group. Collect the 4 or 5 consensus sentences, add in the 2 additional statements, and proceed to general class discussion.

Outcomes produced by this exercise would be among the following:
   to encourage thinking about personal values
   to expose students to Thoreau's paradoxical way of phrasing ideas
   to foster discussion and class participation
   to generate interest/enthusiasm for reading Thoreau.
Only that traveling is good which reveals to me the value of home and enables me to enjoy it better.

JOURNAL, March 11, 1856.

The discoveries which we make abroad are special and particular; those which we make at home are general and significant. The further off, the nearer the surface. The nearer home, the deeper.

JOURNAL, September 7, 1851.

If Paris is much in your mind, if it is more and more to you, Concord is less and less, and yet it would be a wretched bargain to accept the proudest Paris in exchange for my native village. At best, Paris could only be a school in which to learn to live here, a steppingstone to Concord, a school in which to fit for this university.

JOURNAL, March 11, 1856.

How many things can you go away from? They see the comet from the northwest coast just as plainly as we do, and the same stars through its tail. Take the shortest way round and stay at home. A man dwells in his native valley like a corolla in its calyx, like an acorn in its cup. Here, of course, is all that you love, all that you expect, all that you are. Here is your bride elect, as close to you as she can be got. Here is all the best and all the worst you can imagine. What more do you want? Bear hereaway then! Foolish people imagine that what they imagine is somewhere else. That stuff is not made in any factory but your own.

JOURNAL, November 1, 1858.

Give me the old familiar walk, post-office and all, with this ever new self, with this infinite expectation and faith, which does not know when it is beaten. We'll go nutting once more. We'll pluck the nut of the world, and crack it in the winter evenings. Theaters and all other sightseeing are puppet-shows in comparison. I will take another walk to the Cliff, another row on the river, another skate on the meadow, be out in the first snow, and associate with the winter birds. Here I am at home. In the bare and bleached crust of the earth I recognize my friend.

JOURNAL, November 1, 1858.
A man must generally get away some hundreds or thousands of miles from home before he can be said to begin his travels. Why not begin his travels at home? Would he have to go far or look very closely to discover novelties? The traveler who, in this sense, pursues his travels at home, has the advantage at any rate of a long residence in the country to make his observations correct and profitable. Now the American goes to England, while the Englishman comes to America, in order to describe the country.

JOURNAL, August 6, 1851.

There would be this advantage in traveling in your own country, even in your own neighborhood, that you would be so thoroughly prepared to understand what you saw you would make fewer traveler’s mistakes.

JOURNAL, June 12, 1851.

If a man is rich and strong anywhere, it must be on his native soil. Here I have been these forty years learning the language of these fields that I may the better express myself. If I should travel to the prairies, I should much less understand them, and my past life would serve me but ill to describe them. Many a weed here stands for more of life to me than the big trees of California would if I should go there. We need only travel enough to give our intellects an airing.

JOURNAL, November 20, 1857.

When it was proposed to me to go abroad, rub off some rust, and better my condition in a worldly sense, I fear lest my life will lose some of its homeliness. If these fields and streams and woods, the phenomena of nature here, and the simple occupations of the inhabitants should cease to interest and inspire me, no culture or wealth would atone for the loss.

JOURNAL, March 11, 1856.

As I sail the unexplored sea of Concord, many a dell and swamp and wooded hill is my Ceram and Amboyna.

JOURNAL, November 23, 1860.

It takes a man of genius to travel in his own country, in his native village; to make any progress between his door and his gate.

JOURNAL, August 6, 1851.

When you are starting away, leaving your more familiar fields, for a little adventure like a walk, you look at every object with a traveler’s, or at least with historical, eyes; you pause on the first bridge, where an ordinary walk hardly commences, and begin to observe and moralize like a traveler. It is worth the while to see your native village thus sometimes, as if you were a traveler passing through it, commenting on your neighbors as strangers.

JOURNAL, September 4, 1851.
How important, how rampant, how precocious these osiers!...May I ever be in as good spirits as a willow! How
tenacious of life! How withy! How soon it gets over its hurts! They never despair...They are emblems of youth,
joy, and everlasting life.

H. D. Thoreau, February 14 1856

Any grandeur may find society as great as itself in the forest.

H. D. Thoreau, September 3 1841

Branching Subjects: Activities with Trees

Thoreau once wrote that education often “makes a straight-cut ditch out of a free, meandering brook.”
Creative educators know this does not have to be the case. Below we’ve assembled a collection of activities
that suggest the interdisciplinary possibilities in the study of trees, a way of meandering and educating in the
same motion.

Trees are great subjects. They are part of most school yards, existing in cities as well as suburbs, so they are
eminently accessible. They also provide a rich locus for cross-subject collaboration, as well as provide great
object lessons for any number of individual academic subjects, from science, to reading, to math, to art, to
social science, to history, and so on.

The opportunities are boundless, but you will be more successful if you can convince a colleague or two to
collaborate with you.

The Trees of your School Yard/ Community/ Neighborhood

• Take local fieldtrips with your class to learn the basic elements of the forest you inhabit.
• Count the number of trees in a delimited area.
• Learn the identity of those trees.
• Create categories, the most common, the most rare, most used by wildlife, the most beautiful, the
  most interesting.
• Develop a tree map of the area.
• Which trees are native? Which are naturalized? Which are exotic? Which are invasive?
• Remap your community by renaming your streets based on the trees found there.
• Learn about these trees (names, natural histories, animals that use them, human use in the past and
  present).

Tree Journals

• Assign a schoolyard tree, or allow your students to select from a small collection of trees, a single tree
to be monitored all year long. This activity combines art, language arts, mathematics, life sciences, and natural
history.
• Keep a written journal describing qualities, changes, and other thoughts the tree evokes.
• Observe the tree during different times of the day and during different times of the year.
• Make sketches of the whole tree and parts of the tree.
• Describe the tree and its parts.
• Learn about or speculate about the origin of the tree.
• Observe natural cycle of growth and rejuvenation.
• Write an essay on what it might feel like to be a tree.
• Make connections between humans and trees.
Leaf Activities

- The leaf is the fundamental form of the tree. We use them, more than almost any other single variable, to help us identify trees and tree species. How are they shaped? How do they grow (as opposites, alternating, palmated, compound)?
- Do art projects with leaves, including making leaf prints, collages, and rubbings.
- Make leaf presses and catalog them.
- Create a field guide/field key using the leaves of your field.
- Understand photosynthesis and the role of plants in overall Earth ecology.
- Take pictures of the same branch throughout the year to document changes and cycles.
- The Anatomy of a Tree
- Study parts of trees and their functions.
- Germinate a tree from seed; transplant it at the end of the year.
- Bring parts of a tree back to a classroom (roots, leaves, xylem, phloem, bark, etc.) and study them under a microscope.
- Make comparison between trees and other life forms – scientifically and artistically.

A Walk on the Wild Side

- Take a day-long walk in a rural forest.
- Pay attention to the kinds of trees you encounter.
- Bring along field guides, identify trees.
- Compare urban, suburban, and rural trees.

Active Stewardship: Do a project with your students planning for and carrying out a project involving planting more trees and other plants in your school yard

Every school yard is different, so the project needs to come from you and your students in conversation with the broader school community. But if you want to get your hands on really good resources, and be inspired by the possibilities inherent in schoolyards, take a look at the Canadian Biodiversity Institute’s School Grounds Transformation projects. The website is full of information and well organized. It is designed to engage both teachers and students.

This discussion and these activities were developed based on ideas and suggestions found in Gary Moll and Stanley Young. Growing Greener Cities: A Tree-Planting Handbook. Living Planet Press, Los Angeles 1992.
The True Cost of Things, Or, Spending Your Time Deliberately

School students often do not think about the cost of living nowadays – parents provide them with clothing, food and shelter. When they start working – they slowly begin to realize the value of their own work. This is an excellent exercise designed by a Reading High School teacher to make students think about their future in connection to the values of time, work and material goods. This exercise leads to an enriching discussion applicable to all disciplines.

- Ask your students to make a list of everything they wear on that day, including their jewelry, backpacks, eyeglasses, etc. In the space next to the articles, ask them to put an approximate cost of each object, and then calculate the total...
- Then, ask your students to calculate how many hours of their work (based on the highest paid salary they have been ever paid) it would take to earn their possessions on that day.
- Repeat the exercise for all the possessions students have (e.g. closets full of clothes, video and sports equipment, etc.).

Here are sample questions you can use for a discussion about what those numbers mean:

- What does the value of your possessions represent?
- Spending money vs. spending time
- If you could spend the perfect hour/ perfect day – how would you spend it?
- How many hours a day do you spend doing something you do and something you do not enjoy doing?
- Of these hours, how much is required and how much is really needed?
- As a young adult you are not as much in control of how you spend your time as when you are an adult. How would you like to spend your time? How would you like to spend your time if you did not have to earn money? How would you like to spend your time if you could not earn money?
- What does expression ‘living deliberately’ mean?
- What would you like to be doing for a living? Count the percentage of hours you would be working out of your entire life’s hours.
- Ask your students to think about what career path to choose. Expose them to different disciplines taught in school.

The Cost of Things exercise is almost solely based upon lesson plans of Janet Burne, teacher of English at Reading High School, Reading, MA. See Janet Burne’s original lesson plan from her participation in the Thoreau Institute’s Summer Seminar of 2001.

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So often we take walks and do not notice anything new. Yet, when we sit down, look closely and focus our attention, we begin to see a whole new world. A great exercise to practice this new way of seeing and ultimately learning is a micro-hike.

Ask your students to choose a spot in the school yard and measure and demarcate a 3x3 foot area. A magnifying glass enhances the experience. Students should be encouraged to explore the area very closely, keeping their eyes no higher than one foot above the ground. Allow for at least 30 minutes of exploration.

Several questions that can be pondered and activities to be done on the micro-ecosystem:

- number of plants and fungi observed
- number of animals observed

Ask you students to answer the following questions:
- document the changes that took place in those 30 minutes
- what is the cause of this change?
- what role does water play in your micro-ecosystem?
- what role does sun play in your micro-ecosystem?
- what kind of world are you traveling through right now?
- who are you nearest neighbors? are they friendly? do they work hard?
- what would it like to be that metallic green beetle? how does he spend his day?
- invent an allegory based on your observations in this micro-ecosystem
- use your observations to write a short story using metaphors, allegories, personifications, and symbols
- write a short a story inspired by this unusual close-up view of the land, etc.

This type of activity teaches children to explore, to learn, to internalize knowledge and then to express what it means to them all in one exercise.

**Additional Resource:**
‘Remystifying The City: Reawakening the sense of wonder in our own backyards’ by Randy Haluza-DeLay (www.greenteacher.com). This essay discusses both the importance of and some specific approaches to exploring nature under our feet.

*The micro-hike idea was inspired by suggestions found in Joseph Cornell’s, Sharing Nature with Children (Nevada City, CA: Dawn Publication, 1998), p. 50.*
ATTACHMENT N IV
Hold a Mock Public Hearing

There is no better way to engage the real challenges of democratic politics among your students than to create a mock public hearing in which groups of students represent specific interests on an issue. Rather than having them choose a national or international issue, have them select a local issue, one that affects their lives in some direct way.

Preparation for the hearing would necessarily involve visits with local public officials and other interest groups. It would also involve research into how this issue has been resolved before in the community and perhaps how it has been resolved elsewhere. Issues can be chosen to highlight specific subject areas in history, geography, science, mathematics, or teachers can create team taught projects that integrate disciplines into a single project. Students can work as “interest” teams. During the hearings students should take turns playing the role of public official and interest group lobbyist.

After the hearings, students should be encouraged to reflect on questions:

- Why are public hearings important?
- How are decisions made?
- How are issues weighted in making public decisions?
- What are good strategies for getting your interests considered?
- What are other ways that important public decisions get made?

Active stewardship follow-up exercises might involve asking students to contact their local City Hall and finding out about issues of interest to them. They can learn about the decision-making process and write a report in a form of an a) essay b) newspaper article c) letter to a foreign friend d) official proposal for action, etc.

The public hearing idea was inspired by suggestions found in Joseph Cornell’s, Sharing Nature with Children (Nevada City, CA: Dawn Publication, 1998), p. 35.