The Academy of Art, Science and Technology (Academy) 
and 
Henry David Thoreau’s Life 

Submitted by 
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# Background:
The Provincetown High School Academy of Art, Science and Technology

The Provincetown High School Academy of Art, Science and Technology is, at its heart, an interdisciplinary and independent studies elective course in which students explore the art and science, as well as the technology related to lifelong learning skills, knowledge and habits. Students in grades 9-12 may apply to participate in the program and, as long as an individual is prepared to make the effort, regardless of his or her academic strengths and needs, students from all points on the learning continuum take part. Classes are mixed by age, interest, ability, and readiness for independent study.

The **theme** of the Academy of Art, Science and Technology is:  
*lifelong learning skills, habits and knowledge*

The **essential and guiding question** for this course is:  
**How do I become a skilled and knowledgeable lifelong learner and contributor in areas of my personal interests and abilities?**

Some of the targeted **skills** and **concepts** highlighted in this course are:  
*self-awareness & self-direction, critical & creative research, and reflective thinking & doing*

Students begin the school year by participating in a series of small group activities and mini projects that are designed to model the process of recognizing, identifying or articulating, researching, developing, documenting and presenting an in-depth project of personal interest. This "lifelong learning" process is repeated over and over again, with increasing depth, breadth, and rigor. It culminates in what turns out to be a semester-long individualized project done with the guidance of the Academy Coordinator, a PHS Faculty Advisor and a Community Mentor.

Through an immersion in this cycle or process of lifelong learning experiences, by December each student has had the opportunity to explore a variety of individualized project possibilities, as well as had the opportunity to work alongside a multitude of potential community mentors. Most importantly, they have hopefully cultivated some of the necessary knowledge, skills and habits to successfully identify, research, develop and eventually present an individualized project.

By the beginning of the second semester students have researched and written an individualized project proposal, a personal resume' and a letter of invitation/inquiry to a potential mentor. These three items serve as a statement of a student's intentions and are also a stepping off point for the long and winding journey of exploration of oneself and one's interests and abilities.

Students spend most of the deep winter and early spring steeped in the details of developing their individualized projects. They work alongside classmates of different...
ages and varying abilities. Theirs is largely a solo journey, but all share a similar process. Students choose projects ranging from videography, guitar, military history, computer programming, fashion design, painting, poetry, animation, psychology, and journalism, to celestial navigation and nursing. Regardless of the specific topic, the individualized projects are simply the vehicles that move along and strengthen the "lifelong learning process."

The Academy course is inherently experiential and is carried out through both in-class and field studies done throughout the year. Students must quickly learn to balance privileges and corresponding responsibilities involved in this work. The cycle of making observations, reflections and inquiries is repeated over and over again throughout the year as students continually refine the process of identifying, researching, developing and presenting their work. Come late spring, students begin preparing for the presentation of their projects in a very public and rigorous three-fold manner. Academy students are all required to participate and complete each of the following components of presentation:

- A public presentation of student projects which takes place at the local and prestigious Provincetown Art Association and Museum. Each student is responsible for creating an exhibit that reflects both the process and products involved in developing his or her individualized project.

- A completion of a project portfolio which includes photos or examples of their products, plus their written -or otherwise documented- course requirements (program application, project proposal, personal resume, letters to mentors, quarterly self-assessments, annotated resource list, journal entries and final summary).

- A 15-minute oral presentation that highlights what student has learned about his or her project, as well as his or her learning strengths and needs. Students engage with a small audience and must then respond to a post presentation question and answer period and final evaluation.

*How does Henry David Thoreau’s life and Approaching Walden relate to the Academy?*
Connections:  
The Academy and Henry David Thoreau: Lifelong Learning Personified

I applied to take part in Approaching Walden for a number of personal and professional reasons. I work as a generalist in my role as the Academy Coordinator, and with a past steeped in summer camps and environmental education, I come to public education with a natural love of interdisciplinary and experiential learning that is "place-based" in the physical and cultural environment. Bringing the learning process alive by teaching students to tap their local communities for "resources" that can teach them about their interests, their pasts and futures, as well as their place in the larger world has always felt like a way to keep "education" meaningful and alive. I felt that by participating in Approaching Walden, I would find support for my personal philosophy about learning and also my very strong feelings about sense of place, as well as belonging to a community of which humans are but part, albeit a significant (for better and worse) part.

Initially, I was not quite sure how I would bring this experience of Approaching Walden back into my classroom and specifically into the Academy class, but I trusted that this would become clear. Within hours of the first day of "class", it became clear to me that by participating, there were plenty of connections and ways in which I could improve upon what I was currently doing in my classroom, especially with journaling in mind.

Even some mighty fine surprises came to me completely unexpected largely due to my own limited knowledge and understanding of Henry David Thoreau's life. Beyond our obvious shared love of this earth, I began to see even more intimate parallels between my own life and his given his interest in active and awake observation and inquiry about life and vital issues of equity and social justice related to communities large and small.
Approaching Walden Unit Abstract:  
The PHS Academy Course Meets Henry David Thoreau

I am looking to integrate elements of Thoreau’s life and writings that will enhance and improve current Academy class curriculum, instruction and assessment. As for how to bring this work into my classroom, I begin by focusing on insights gained about Thoreau as a lifelong learner who embodied many of the skills, habits and insights that I work to cultivate in my own life and instill in my students’ lives. From there I moved to a more specific focus on a longtime --yet not too successful or satisfying -- course requirement of maintaining an individualized project journal. While considering a unit that would somehow address these issues, I want to weave into my unit the following key points:

Skills, habits and knowledge related to lifelong learning. I have worked hard to articulate the basic skills and habits that I sense students need to have modeled and must learn in order to carry out productive thoughtful self-directed studies. Thoreau's use of observation, reflection and inquiry to document and articulate his life and world closely parallel the skills and habits I continue to work on developing both in myself and in my students. This is all part of a lifelong learner’s necessary toolbox of resources, and the skills involved in keeping a meaningful project journal is one vitally important tool.

Sense of place and self in the context of place. In these times of increased "standardization”, we are sometimes guilty of distancing our students not only from the subjects they are studying, but also from the very local and personal connections that could better connect them to the subject matter. Thoreau's life is a fine example of how thinking globally, has its roots in acting locally, or how the personal can so very easily be political if we look deeply through a more localized lens. Looking through the lenses related to sense of place and sense of self can lead to a larger and more exciting sense of wonder about self and the world in which we live. Henry David Thoreau traveled to Cape Cod and walked much of the Cape (including his travels to the Outer Cape Towns of Provincetown, Truro, and Wellfleet) in 1849, 1850 and 1855. Because I work hard to connect students to their communities by involving them in projects that connect them to related individual and institutions in Town, it makes obvious sense to include Henry David Thoreau in my list of community resources. Most importantly, his life serves as a historical model of an amazing self-aware and self-directed learner whose life reflects the process and goals that serves as the framework for the Academy class.

Issues of equity. Here I focus specifically on public education and how it contributes to issues of academic, social, economic, and environmental justice and injustice. The Academy Class is an effort to help students develop a sense of voice and choice about learning and about many other things in their lives, and while these subjects may not be deliberately articulated, they are an inherent part of how the class is organized and presented. Students learn to honor the variety of ways in which individuals learn and demonstrate what they know. Students also work alongside mentors who have chosen many different ways to get along and find meaning in this world. Much of Thoreau's life and work, specifically what we know of his personal choice to live deliberately and to have a voice about justice and civil disobedience is connected to these issues.
Every aspect of the Academy class is always under construction and evolving to better meet the needs of students, as well as better satisfy my personal and professional goals of participating in learning that has integrity, meaning and rigor. For purposes of writing a unit that closely follows up on my experience as an *Approaching Walden* participant, I have turned my focus onto how I can improve my interest in having students document the process they are immersed in while developing their projects.

**Unit Goal:** I am very interested in cultivating student interest in the life of Henry David Thoreau not only as a local resource to draw upon, but especially as an excellent and timeless model of a spirited self-directed and lifelong learner. To do so, I plan to:

**Objective #1:** Begin the year with a first semester focus on classroom and field experiences that assist students in developing a toolbox of skills and habits that will strengthen their individual project success and that will specifically improve their documentation of this experience. I assume that by doing so students will also strengthen their skills, habits and knowledge as self-directed and lifelong learners.

**Objective #2:** Work with students during the second semester to improve the process and results of keeping a project journal. I have not been very happy or confident with my abilities to facilitate a more productive and meaningful means of doing so. I am especially interested in how the process of journaling can assist students in making more rigorous and creative observations, reflections and inquiries that will serve to improve their efforts, and the results of those efforts, to develop their individualized projects.

**Objective #3:** Develop more meaningful ways to not only keep a project journal, but to learn how to bring closure to projects by drawing on the content of their journals. I hope to help students better highlight, analyze, synthesize and apply certain journal entries that can be isolated and transformed (through editing and revising) into a completed product such as a final project summary or artist’s statement.

**The Lesson Plans:**

- **The first lesson plan** will focus on some of the initial activities that will assist students in creating a "toolbox" of lifelong learning skills, knowledge and habits.
- **A second lesson plan** will focus on teaching and guiding students to keep a lifelong learning project journal, a thorough, reflective and relevant documentation of their individualized study.
- **A third lesson plan** will focus on using the journal to review, isolate, choose and further develop key information and inquiries found in imbedded in project journals (editing, revision, and exploring a variety of means for presenting info).
Lesson Plan #1
What does education do?
It often makes a straight-cut ditch of a free, meandering brook.
Henry D. Thoreau 1850

Focus of Lesson Plan: Mapping a sense of self, community and personal interests as a vehicle to better articulate an understanding of self and surroundings, and to develop a toolbox of independent and lifelong learning skills. Students will work in small groups with Mark Adams (community mentor, cartographer and visual artist) and me to:

■ “Map” their individual lives
  1. Students create personal timelines of significant people and event, as well as their schooling experiences. Maps are orally presented in small groups.
  2. Students then create visual representations of important goals and dreams. These “posters” will be exhibited anonymously and students will take turns writing first impressions and inquiries to each other.

■ “Map” the community in which they live and go to school
  1. Mark Adams presents the multitude of ways in which he gathers information in order to illustrate and document his travels. Mark uses GPS mapping data, painting, collage, museum pamphlets, photography, writing, sketching, and recorded interviews to document his travels done for personal and professional reasons.
  2. Students work in the field in small groups in order to gather information about Town cultural and natural resources. Equipped with digital cameras, sketchbooks, and prepared questions, they will set out on a “scavenger hunt” to collect information. Information collected will be translated into data that can be plugged into computer so that Mark can generate maps at the lab.
  3. Students then work with Pilgrim Monument and Museum staff, Mark Adams and me to look back in time to the years of Thoreau’s visits to Truro and Provincetown. Walking field trips, weekend hikes and use of quotes from the last two chapters of Thoreau’s Cape Cod will help trace some of his travels in order to gain a better understanding of area some 150 years ago. Students discuss the ways in which Thoreau exhibited the skills and habits of lifelong learning.
  4. Students work in small groups to create a chart comparing Provincetown in 1850 to Provincetown in 2005. Students will then begin to generate a list of observations, reflections and inquires related to these exercises.
  5. Students will then discuss how these tools and this series of activities can be applied to an exploration of their individual interests. Students then “map” the major trends and contributors to one chosen interest that could later become an individual project.

Assessment: Students are assessed on quality of participation in each of the above activities. In addition, the Academy Students, Academy Coordinator, PHS Faculty Advisors, and Community Mentors will each write a reflective narrative assessment of pre and post Academy Class student understanding and ability to identify and apply an understanding lifelong learning skills, knowledge and habits.
Lesson Plan #2

Nature will bear the closest inspection; she invites us to lay our eye level with the smallest leaf, and take an insect view of its plain. She has no interstices; every part is full of life.

Henry D. Thoreau Natural history of Massachusetts

Focus of Lesson Plan: Journals and the art and science of journaling as a tool to record and document project, as well as to reflect and inquire about experience involved. I will draw on Approaching Walden workshops presented by Jeannie Abbott, Susan Pollack, Jeff Cramer, Leslie Wilson, David Luther and Wayne Little.

1. Students will work with community mentors who present the many ways in which they document their lives. Mentors will use words, sketches, found objects, photos, and portfolios to show students the variety of ways in which they can collect info and document ideas about their projects.

2. Students will review copies of historic journals, including those of Henry D. Thoreau. Students will discuss how journals have been used to document events for both personal and professional reasons.

3. Students will begin to develop their own project journals that will consist of both directed and free entries done in a variety of formats. A series of classroom discussions and activities will be done throughout the semester-long project as a means of checking in and keeping the journaling process alive and productive. Directed entries will consist of responding to specific Thoreau quotes that address - in a very general way – equity, sense of place, sense of self, choices and decision-making, education, individuality, wildness, presentation of one’s ideas, observation, reflection and inquiry.

Using the format of the quotes found on the “Thoreau on the Go” laminated cards (John Chamberlain Jr.) students will be asked to reflect on the meaning of the quote, define specific vocabulary words, respond to questions, and then connect their interpretations of the quote to the nature of their work as self-directed students. Other directed entries will take place during and after specific field trips or field studies that are geared at assisting students research and develop an active and meaningful project annotated resource list. Free entries will be up to the students but must address specific parameters that include making observations, reflections and inquiries about their process and results.

Assessment: Journals account for 20% of a student’s 3rd and 4th quarter grades. A good deal of attention (modeling, discussion and instruction) will be put into developing this part of the Academy Class curriculum. As the instructor, I will also keep a journal that will parallel the requirements of what I am asking the students to do. Journals are assessed according to quality of participation/completion and the variety of ways in which information is documented. Students conference with peers, mentors and teacher at various points to discuss the quality of the journaling work. The third lesson plan is in place as a follow-up to journaling that will require students to pull excerpts from journals.
Lesson Plan #3

_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 from equally favorable positions._

*Henry D. Thoreau  July 10, 1851*

**Focus of Lesson Plan:** Periodic revision, submission, and presentation of a favorite journal entry to be used for a variety of purposes including the exhibition brochure of “artist” statements, final summary, final oral presentation and Lyceum event. Most of these pieces require students to address what has been done, what has been learned about subject from doing, what has been learned about the individual’s learning strengths and needs, and what is now understood about lifelong learning and learners such as Thoreau.

1. Students attend literary events (readings) at the Fine Arts work Center in Provincetown and then meet with writing fellows to discuss their work (specifically the revision process), and the importance of journaling as a means of capturing and shaping ideas.

2. Students attend theatrical event at the Provincetown Theatre company and then meet with playwrights, director and actors to discuss their cultivation of ideas and eventual presentation of ideas after several “revisions.”

3. Students attend art opening for community mentor exhibition at the Provincetown Art Association and Museum and then meet with mentors to discuss the process of generating ideas and then bringing them to fruition in the form of painting, sculpture, & installations.

4. Students attend opening reception for a new historical exhibit at the Pilgrim Monument and Museum in Provincetown and then discuss with museum curators the process of developing and designing thematic exhibits.

5. Students watch videos of famous speeches and discuss the events addressed as well as the skills of the presenter to articulate his or her ideas.

6. **Students are introduced to the concept of Lyceum and discuss how Thoreau “presented” his ideas and how the Lyceum served individuals and communities.**

7. Students choose three key journal entries and work with peers, teacher and mentor to ‘tease apart’ the ideas and inquiries imbedded in those entries. Students then work to further develop the content of these entries into personal statements that are incorporated into their group exhibition exhibit (and corresponding artist statement) final summaries, annotated resource list, and final oral presentation (lyceum).

**Assessment:** I look forward to the end of this next school year when I will be able to assess the degree to which journal keeping was successful in its part to assist students to create more thoughtful and reflective oral, visual and written final presentations. The more deliberate my efforts are to have students document their projects, and to also tap the quality of their thoughts on both process and product involved, will assess how successful our journaling work and the applications made from journaling has been.
There are many "standards" imbedded in the Academy of Art, Science and Technology Course, and specifically in this unit. I have chosen to highlight the following ones as a means of illustration the inherent general yet interdisciplinary nature of lifelong learning and the documentation of lifelong learning.

MA English Language Arts Standards (Language, Composition and Media Strands)

#1 Students will use agreed upon rules for informal discussions in small and large groups
#2 Students will pose questions, listen to the ideas of others, and contribute their own information or ideas in group discussions or interviews to acquire new knowledge
#3 Students will make oral presentations that demonstrate appropriate consideration of audience, purpose, and the information to be conveyed
#8 Students will identify the basic facts and main ideas in a text and use them as a basis for interpretation
#9 Students will deepen their understanding of a literary or non-literary work by relating it to its contemporary context or historical background
#11 Students will identify, analyze, and apply knowledge of theme in literature and provide evidence from the text to support their understanding
#18 Students will plan and present dramatic readings, recitations, and performances that demonstrate appropriate consideration of audience and purpose
#19 Students will write with a clear focus, coherent organization, and sufficient detail
#20 Students will write for different audiences and purposes
#21 Students will demonstrate improvement in organization, content, paragraph development, level of detail, style, tone and word choice (diction) in their compositions after revision
#22 Students will use Standard English conventions in their writing, revising and editing
#23 Students will organize writing in a way that makes sense for their purpose
#24 Students will gather information from a variety of resources, analyze and evaluate the information they obtain, and use it to answer their own questions
#25 Students will develop and use appropriate rhetorical, logical, and stylistic criteria for assessing final versions of their compositions or research projects before presenting them to varied audiences
#26 Students will identify, analyze and apply knowledge of the conventions, elements, and techniques of film, radio, video, television, multimedia productions, the Internet, and emerging technologies and provide evidence from the works to support understanding
#27 Students will design and create coherent media productions (audio, video, multimedia, the Internet, and emerging technologies) with a clear controlling idea, adequate detail and appropriate consideration of audience, purpose and medium)

MA Arts Standards (Visual Arts Strand)

#3 Students will demonstrate their powers of observation, abstraction, invention, and expression in a variety of media, materials and techniques
#4 Students will demonstrate knowledge of the processes of creating and exhibiting artwork: drafts, critique, self-assessment, refinement and exhibit preparation
#5 Students will describe and analyze their own work and the work of others using appropriate visual arts vocabulary. When appropriate, students will connect their analysis to interpretation and evaluation
# 10 Students will apply their knowledge of the arts, to the study of English Language arts, foreign languages, health, history, social science, mathematics, science and technology/engineering
MA Science and Technology Learning Standards (Inquiry Strand)

- Students will be able to note and describe relevant details, patterns and relationships
- Students will be able to apply personal experience and knowledge to make predictions
- Students will be able to apply multiple lines of inquiry to address and analyze a question
- Students will be able to use more complex tools to make observations, and gather and represent quantitative data
- Students will be able to describe data even when patterns are not exact
- Students will be able to classify data and findings using tables, models, demonstrations and graphs

CO School-to-Career Partnership Competencies:

1. Communication Skills:
   Students demonstrate the ability to receive and relay information clearly and effectively.
   - evidenced in article(s) and presentations
   - peer and teacher evaluation via six-trait writing assessment rubric

2. Organizational Skills:
   Students demonstrate skills to effectively and efficiently operate within the workplace.
   - tracked by daily points and evidenced by portfolio presentation and meeting deadlines

3. Thinking Skills:
   Students demonstrate the ability to use reasoning.
   - evidenced in reflective journals, article(s), discussions, decisions via consensus

4. Technology Skills:
   Students demonstrate the ability to work with a variety of technologies.
   - evidenced by use of computer programs and Internet, camera, telephone, scanner, Alpha smarts, tapes recorders, etc.

5. Worker Qualities:
   Students demonstrate the characteristics of an effective worker.
   - tracked by daily logs, attendance grade, meeting of deadlines

Coalition of Essential Schools: Habits of Mind:

This list has expanded but the five top and long-lasting Habits of Mind recognized include:

- a recognition and understanding of perspective
- a recognition and ability to apply an understanding of the necessity for evidence that supports our efforts and statements
- an ability to imagine and envision things being different than they appear or may actually be is the habit of supposition
- an ability to see relationships and to make connection between different people, objects and concepts
- a recognition and understanding of relevance related to our choices, actions and words
Resources and Bibliography:

Individuals:

Mark Adams: Mark is longtime colleague and dear friend who is a living Henry David Thoreau. Mark works as a cartographer for Cape Cod National Seashore, is a fine visual artist and veteran Academy mentor. He gets what this is all about! Next spring I will be able to take a weeklong course on journaling with Mark at the Castle Hill Center for the Arts in Truro, MA.

Michael Landis: Michael is an artist and instructor at the Fine Arts Work Center in Provincetown, MA. I am taking a weeklong course with him and will use a focus on the visual and written documentation of life experience to enhance my journaling goals.

Aric Sather is my nephew, one of the recipients of lots of “furry, slimy and mysterious” items shared by me with my loving family members. Aric is now almost thirty years old. Just the other day I was asking him if he ever studied Thoreau. He reminded me that years ago I gave him a copy of Walden during a particularly trying time in his early 20’s. He went on to quote Thoreau and share with me all the ways in which that book has truly shaped his life. Aric bought a sailboat a few years back and sailed for nearly two years. He tells me about a book for sailors that is entirely based on Thoreau’s life and writings.

Karen Kremer: Karen teaches journalism at the University of Wisconsin in Eau Claire. We were recently discussing student internships and her requirement of journal keeping. One brief conversation with Karen was extremely helpful in gathering info about how to guide students to successfully find a way to make productive use of journals without too much or too little intervention on the teacher’s part.

Books:

*Thoreau’s Cape Cod*

*Henry David Thoreau: Civil Disobedience and Other Essays*

*Walden*

*Words for Nature: Spirit, Wildness, and the Sublime Writings of D. Thoreau*

Provincetown Writers, Poets and Historians:

Mary Oliver  Mark Doty
Stanley Kunitz  Mary Heaton Vorse
Josephine Del Deo  Robert Finch

Finding Walden Workshop Presenters and Resources:

Susan Pollack  Jeannie Abbott
David Luther  Wayne Little
Jeff Cramer  Leslie Wilson
Luba Zhaurova  Kimberly Madison

*Memory, Community and Future Mapping: Getting to Know Your Home Landscape*

Other:

MA State Frameworks, CO State Frameworks, Coalition of Essential Schools