

A Trail to Place-based Service Learning Curriculum

Start Here!

Big Idea

High school students will learn how and why to promote the safe and sustainable use of the Appalachian Trail in their community.

State Standards/Outcomes

NH Visual Arts Frameworks: (Emily West Platt)

1. Apply appropriate media, techniques, and processes.
2. Identify and apply the elements of visual art and principles of design.
3. Select and apply a range of subject matter, symbols and ideas.
4. Analyze the visual arts in relation to history and culture.
5. Analyze, interpret and evaluate their own and others' artwork.
6. Make connections among the visual arts, other disciplines, and daily life.
7. Understand the range of careers in the field of visual arts and identify careers associated with this field.

NH Science Frameworks: (Collaborating Teacher)

1. Use formal controlled experimentation to gather data about the natural world. Limit scope, isolate variables, prove or disprove a limited hypothesis.
2. Generate their own questions, develop hypotheses, and design or modify experiments to test those hypotheses.
3. Manipulate scientific apparatus and use advanced technology to gather data
4. Analyze collected data to validate or refute a hypothesis.
5. Articulate clearly and defend a scientific viewpoint.

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Essential Questions (Content)

1. What is the history of the AT and why would high school students want to promote its use?
2. What curriculum-based educational opportunities are presented to students through place-based learning experiences, particularly those associated with the AT?
3. How does use of the AT benefit individuals or communities?
4. What is sustainable use of the AT, and why is it important to individuals and communities?
5. What can high school students do, through service learning, to promote the safe and sustainable use of the AT in their community?
6. How will students know if they are successful in promoting the safe and sustainable use of the AT in their community?

Skills and Habits of Mind

Students will utilize the following skills and habits of mind:

- Persisting
- Thinking and communicating with clarity and precision
- Gathering data through all senses
- Listening with understanding and empathy
- Creating, imagining, innovating
- Thinking flexibly
- Responding with wonderment and awe
- Taking responsible risks
- Striving for accuracy
- Finding humor
- Questioning and posing problems
- Thinking interdependently
- Applying past knowledge to new situations
- Remaining open to continuous learning
- Setting goals
- Reflecting
- Applying decision-making strategies
- Managing time effectively
- Committing to and advocating for cause or purpose

Community Opportunities

The following opportunities or needs potentially exist in the school or community:

High school students have a 50-hour community service requirement for graduation.

Students will gather data and consider:

- The number of high school students who have never hiked on the AT or other trails in the White Mountains (student survey)
- The number of high school students and adult community members who are over-weight and lack appropriate levels of physical fitness (interviews with local health professionals)
- The number of hiking injuries that could be prevented and rescue emergencies that could be avoided with proper planning, knowledge, and judgment (interview with search and rescue organization)
- The number of community members who do not understand environmental threats to the AT and local communities, such as global warming and pollution (interview with local conservation commission and AMC)

Youth Voice

Part III: With the aid of community partners, the AT Student Ambassadors will create and implement community outreach (service learning) projects to educate about and promote the safe and sustainable use of the Appalachian Trail in the White Mountains Region.

Projects might include any of the following:

- AT Challenge Course for Elementary-age Students
- AMC Citizen Science Community Presentation
- AT Awareness Community Fair
- Service-based High School Outing Club
- AMC Adopt-A-Peak Program
- Public Awareness Campaign (Brochures, Public Service Announcements, Pod Casts, Internet Blogs, etc.)
- Earth Day and National Trails Day Events

Project

Part I: Through hands-on workshops and hikes on the Appalachian Trail in the White Mountains National Forest and Franconia Notch State Park, a focus group of up to 50 high school students will become AT Student Ambassadors. The workshops will include:

- History of the Appalachian Trail
- *Leave No Trace* Principles for Outdoor Ethics
- *Hike Safe* Hiker Responsibility Code

Part II: The AT Student Ambassadors will focus on topics directly related to the school curriculum, as noted:

- Art – Continuing Traditions of Art and Photography in the White Mountains/Nature Journals (EW Platt)
- Health – Health and Fitness on the AT (MJ Levitsky)
- Science – AMC Citizen Science Program (Data collection and reporting) (LHS colleague)

Partnerships & Benefit(s)

- Littleton Conservation Commission
 - Local trail maintenance and environmental advocacy
- Appalachian Mountain Club (AMC)
 - Citizen Science Project, Adopt-A-Peak Program
 - Job Shadows, Internships
- Franconia Notch State Park
 - White Mountain National Forest, NH Fish and Wildlife
- Pemigewasset Valley Search and Rescue Team (PVSART)
 - Ethical outdoor behavior and hiker safety
- Appalachian Trail Conservancy (New England Representative)
 - Education, appreciation, and stewardship of the AT
- Lakeway Elementary School
- Daisy Bronson Middle School
- Local Girl and Boy Scout Troops
- Bretton Woods Adaptive Sports Program (BWA)
 - Active participation in healthy outdoor activities

Resources

Alden, Peter and Brian Cassie. *National Audubon Society: Field Guide to New England*. New York, NY: Alfred A. Knopf, Publisher. 1998.

Appalachian Trail Thru-Hike Planner. Harpers Ferry: Appalachian Trail Conservancy. 2005.

Brown, Rebecca. *Women on High: Pioneers of Mountaineering*. Boston, MA: Appalachian Mountain Club. 2002

Buchsbaum, Robert N. *AMC's Best Day Hikes in the White Mountains*. Boston, MA: Appalachian Mountain Club. 2006.

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Models

Students will have the opportunity to meet staff and volunteers from the AMC, PVSART, and BWA providing authentic examples of excellence and service in their own community.

Students will analyze how these organizations set goals, recruit volunteers, utilize the media, and insure a lasting, meaningful impact on the Appalachian Trail and those who enjoy the trail in the White Mountains.

If possible, students will develop mentoring relationships with exemplary adults, and they, in turn, will mentor peers and younger students.

Reflection

Students will routinely reflect on the essential questions, which guide the AT Student Ambassador Program, through group dialogue and individual journaling.

Students will also reflect on all phases of developing and implementing their outreach projects, in order to:

- Work interdependently
- Learn from and avoid mistakes
- Acknowledge and repeat successes

Project Name: AT Student Ambassador Program

Teacher(s): Emily West Platt & Mary-Jo Levitsky

Grade Level: Littleton High School, Grades 9-12

Time Frame: October 2008-May 2009



Your Evaluation of the Unit

The unit will be evaluated by the rate, level, and duration of participation by the focus group students in the AT Student Ambassador Program, as well as the level of efficacy of the Student Outreach Projects.

Aspects of the curriculum/place-based units and student learning projects that worked well and those that could be improved will be noted through observations and feedback from student and adult participants.

The overall AT Student Ambassador Program and specific Student Outreach Project outcomes will be analyzed and interpreted using data from pre- and post-surveys, observations, and feedback to determine the extent to which the expected goal of effectively promoting the safe and sustainable use of the AT in their community was met.

Final Celebration

The AT Student Ambassador Program will celebrate the successes of the focus group students, as well as community partners, and outreach participants, to inform the school and community of their commitment to service and learning. Results will be written by students and published in local newspapers and, if possible, in the journals of the AMC and ATC.

The nature and scope of the final celebration will be determined by the students in the AT Student Ambassador Program, with the ancillary goal of inviting new high school students into the program.

The final celebration will also emphasize the integral component of place-based learning, specifically through the event's location and the presentation's content.

Student Assessment

Student learning will be assessed by:

1. The levels to which students demonstrate competency in knowing, applying, and teaching the Leave No Trace Principles for Outdoor Ethics and Hike Safe Hiker Responsibility Code,
2. The levels to which students demonstrate competency in meeting curriculum-specific skills (as determined by the state standards) and utilizing positive, effective habits of mind, as these relate to the AT,
3. The extent to which students meet the specific goals of planning, developing, and implementing their own outreach (service learning) projects, promoting the safe and sustainable use of the AT in their community.

State Standards/Outcomes

(Continued from Page 1)

NH Health Frameworks:

(Mary-Jo Levitsky)

1. Comprehend concepts related to health promotion and disease prevention.
2. Demonstrate the ability to access accurate health information.
3. Demonstrate the ability to practice health-enhancing behaviors and reduce health risks.
4. Analyze the influence of culture, media, technology and other factors on health.
5. Demonstrate the ability to use interpersonal skills to enhance health.
6. Demonstrate the ability to use goal setting and decision-making skills to enhance health.
7. Demonstrate the ability to advocate for personal, family and community health.

Resources

(Continued from Page 1)

Crazin, Daniel D., Editor. *Appalachian Trail Data Book 2008*. Harpers Ferry: Appalachian Trail Conservancy. 2007.

Daniell, Gene and Jon Burroughs. *White Mountain Guide 26th Edition*. Boston, MA: Appalachian Mountain Club. 1998.

Dickerman, Mike and Steven D. Smith. *The 4000-Footers of the White Mountains: A Guide and History*. Littleton, NA: Bondcliff Books. 2008.

Harkins, Tracy, Editor. *Kids as Planners: A Guide to Strengthening Students, Schools, and Communities through Service Learning*. Lewiston, ME: Kids Consortium. 2005.

Henderson, John J. *Incomparable Scenery: Comparative Views in the White Mountains*. Laconia, NH: The Belknap Society. 1999.

Irwin, Bill with David McCasland. *Blind Courage: A 2,000 Mile Journey of Faith*. WRS Publishing. 1993.

Meyer, Kathleen. *How to Shit in the Woods*. Berkley, CA: Ten Speed Press. 1994.

Marshall, Ian. *Story Line: Exploring the Literature of the Appalachian Trail*. Charlottesville, VA: University Press of Virginia. 1998.

Monroe, Colleen. *The Wonders of Nature Sketchbook: Learn About Nature and How to Draw It*. Brighton, MI: Storytime Press. 2005.

Mudge, John T. B., Editor. *The Old Man's Reader: History & Legends of Franconia Notch*. Etna, NH: The Durand Press. 2003.

The Appalachian Trail On My Mind: The Best of the Appalachian Trail in Words and Photographs. Guilford, CT: The Globe Pequot Press. 2003.

The Leave No Trace Training Cookbook: Training Recipes for Educators. Boulder, CO: Center for Outdoor Ethics. 2001.

Theodore, Chuck. *Mount Washington: White Mountains, New Hampshire*. Franconia, New Hampshire: Rivendell Art Photography. 1998.

Theodore, Chuck. *The White Mountains*. Franconia, New Hampshire: Rivendell Art Photography. 1997.

Theodore, Chuck. *The White Mountains: Images in Autumn*. Franconia, New Hampshire: Rivendell Art Photography. 1997.

Websites:

Appalachian Mountain Club. www.outdoors.org
Appalachian Trail Conservancy. www.appalachiantrail.org
HikeSafe: There and Back. www.hikesafe.com
Leave No Trace: Center for Outdoor Ethics. www.lnt.org

Grants:

Trail to Every Classroom Grant (awarded)

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Area News

LHS students hit the trails

By CODY PINARD
Courier Intern

LITTLETON—Taking advantage of the untouched beauty in the area we live in, two Littleton High School teachers recently led students on a hiking trip to Lonesome Lake in Franconia Notch, teaching the teens safety, responsibility and to enjoy the beauty of the fall hike along the way.

In a time where "going green" is becoming a common term in the American media and beyond, these two teachers used hiking programs to their advantage to teach the students to enjoy and respect their surroundings. LHS art teacher Emily Platt and health teacher Mary-Jo Levitsky referred to programs such as hikeSafe and the Hiker Responsibility Code, which is developed and endorsed by the White Mountain National Forest and New Hampshire Fish and Game, as well as Leave No Trace, a program combining knowledge and decision-making with ethical

accountability that is endorsed by the Center For Outdoor Ethics.

Platt and Levitsky have worked together for the AT Student Amdassador Project, which is a grant-funded initiative of the National Park Service's Trail to Every Classroom. They brought their classes together on a recent Monday, planning a trip up to Lonesome Lake that left from the Lafayette Campground and ended there as well. The hike was also on part of the Appalachian Trail (AT).

The students in Platt's art group were part of the White Mountains Artists/Nature Journals class. These students were given cameras and advised to bring sketch books to capture nature. Levitsky was teaching health and fitness on the AT and gave her class questions that they answered during the hike.

Both teachers joined in the adventure, leading the students along the trail, which was steep and cov-

ered with boulders, leaves and had bridges to navigate over. Along the way, both teachers promoted recre-

ation, and community engagement to the students. The hike provided not only a student learning

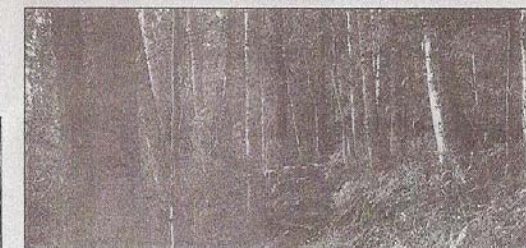
experience, but had amazing fall scenery for the students to see and there were some tough climbs. The hike was

worth it, as the mountains provided a great backdrop for the lake hidden away in the notch.



CODY PINARD/COURIER INTERN

Littleton High School students recently took the classroom outside when they hiked to Lonesome Lake in Franconia Notch. Pictured from left are, Mae DesTroismaisons, Becky Abbott, Tony Pifari, Echo the dog, and Lana DesTroismaisons. Back row, Kyle MacKay, Ryan Hasselmann, Kyle Lavoie, Ben Cronan, Hannah Mitchell, Patrick Cullen, Cameron Wigget, Kevin Lewis and Ben Clark.



A TRAIL TO EVERY CLASSROOM

Project Name: Hike Around & In Littleton (HAIL)

Teacher: James Ramsey and Susan Smith

Grade Level: Seventh and Eighth Grades

Time Frame: September 2009 – June 2010

BIG IDEA

Hiking/walking is an endeavor in which individuals of all ages may participate. It can be an enjoyable, healthy, sociable, and inexpensive lifelong activity.

PROJECT OVERVIEW

The purpose of this project is to create hiking trails around and in the town of Littleton, NH. Many people of all ages are walking to keep fit. Having a trail system in Littleton would keep the interest in walking up, as well as pique the interest of others to start a fitness program. The trails that would be created would include existing sidewalks, as well as cemeteries, parks, and other public areas. The trails would be of different lengths and levels of difficulty.

A pamphlet, brochure, or booklet would be the end result of this project. The title of the booklet would be centered on the theme of the Appalachian Trail, as it is in close proximity to Littleton, NH. The publication would contain the locations of the different trails, parking areas, lengths, and difficulties of the trails. In keeping with the theme of the Appalachian Trail, the trail names in the Littleton Trail System would take their names from locations or spots of interest along the Appalachian Trail as it traverses through New England. Students would be engaged in creating the trails, determining the lengths of the trails, assessing the difficulty of the trails, as well as cleverly naming the trails. Students would also form partnerships with various community groups. As previously mentioned, the students would culminate the project with the creation of a publication to outline the Littleton Trail System.

STATE STANDARDS/OUTCOMES

Math:

Choice of operations to determine length of trails
Use of proper units to figure trail lengths
Averaging to figure approximate distance of trails

English:

Writing clear concise directions in making brochures or pamphlets
Research skills to find information on Appalachian Trail
Letter writing skills for partnerships

Technology:

Use of GPS to measure distances of trails
Calculators for doing math computations
Computers for brochure design
Use of Power Point for presentations of trail features when completed
Use of Excel to make charts comparing trail distances and degree of difficulty
Stop watch for calculating time

Science:

Knowledge of systems to keep the mind and body healthy
Nutritional aspects for healthy bodies
Observation of biotic and abiotic features
Observation of formation and placement of landforms
Use of compasses and maps

ESSENTIAL QUESTIONS

How does hiking/walking contribute to overall health?
What are the nutritional needs necessary for an activity such as hiking?
How can personal health choices lead to a longer, healthier life?
What amount of hiking time is necessary for optimum benefits?
What are the additional benefits, besides exercise, of being outdoors?
What are the best practices to maintain the health of the trails?

HABITS OF MIND

1. The importance of exercise throughout life to maintain optimum health
2. The importance of diet in maintaining a healthy mind and body to participate in hiking activities
3. An appreciation for the outdoors
4. Understanding the value of maintaining the integrity of trails for others

SKILLS

1. Math skills for measurement of trails
 2. Direction giving skills to map out hiking trail
 3. Communication skills necessary for creating partnerships
 4. English skills necessary for composing brochures or pamphlets
 5. Technology skills (computer, GPS, digital cameras) for research and production
 6. Scientific knowledge of body systems, ecosystems, and landforms
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COMMUNITY OPPORTUNITIES

The need for designated hiking/walking trails throughout the community is demonstrated by the number of people of all ages in Littleton, NH, who walk for enjoyment or for their mental and physical health. There exists an opportunity in Littleton for students to design brochures or pamphlets which contain a listing of the trails, parking access, as well as the length and difficulty of the trails. In addition, a unique opportunity exists for the public to be made aware of the close proximity of the Appalachian Trail. The walking routes the students design are going to be named after specific locations along the Appalachian Trail as it traverses through New England.

PROJECT

The project in mind would be developing hiking trails throughout the community of Littleton, NH. The trails would be of varying difficulties and lengths and would benefit all community members regardless of age. The

final product would be a pamphlet or brochure containing the names and locations of the trails as well as their length, difficulty, and the approximate time it takes to complete them. The trail names would be modeled after existing trail names or locations along the Appalachian Trail in New England such as the Hundred Mile Woods in Maine.

YOUTH VOICE

1. Class discussions regarding health issues in society and the need for exercise
 2. Student investigation of health attitudes of Littleton, NH residents
 3. Question and answer session regarding how some community members are trying to get engaged in a healthier lifestyle such as walking, eating better, joining health clubs
 4. Health club visits to observe people using treadmills and weight machines
 5. Student group work to investigate ways to exercise for free
 6. Internet research by students regarding the Appalachian Trail
 7. Student evaluation of ways to get in shape without a high cost factor
 8. Student designed surveys for community members who have used the trails to get feedback regarding conditions of the trails and suggestions for improvements
 9. Weekend hike to the trails
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PARTNERSHIPS AND BENEFITS

There are many potential community partners that could assist in this project. Some partners would just need notification of the trail system, others would assist in the project itself, and still others would help to publicize the existence of the project. Some of the service organizations might offer financial assistance with the project. The possible list of potential partners include:

The Littleton Courier (local newspaper)
Littleton Park Commission
Littleton Police Department
Athletic Coaches

Littleton Regional Hospital
 Littleton Senior Center
 Littleton Chamber of Commerce
 WLTN (local radio station)
 Town Selectmen
 Conservation Commission
 AMC (local division)
 The Littleton Garden Club
 Cemetery Superintendent (trails through there)
 Local Health Clubs
 Local Businesses
 Superintendent of Schools
 School Board
 School Principal and Teachers
 Littleton Library
 Service Organizations

The benefits to the partners would be the use of the trails and also would be the good publicity for the town itself. An added benefit would be the cooperation of different community groups.

The potential benefits for the students would be that of working with many different age groups and gaining an appreciation for the importance of a healthy lifestyle for all community members regardless of age. The students would get the satisfaction of designing a project that could be utilized by a large segment of the community. Another benefit would be creating an awareness of the Appalachian Trail and its proximity to the Littleton community.

RESOURCES

Trail to Every Classroom materials
 Rita Hennessey
 TTEC participants
 Local members of the AMC
 School resources such as books, magazines, and newspapers
 Class books on the Appalachian Trail
 Local newspapers
 Internet research in the school library
 Town maps

AMC maps of trails
Appalachian Trail maps and brochures/pamphlets
Pedometers
GPS units
Journals to record information
Wood for signs and trail markers
Paper for brochures/pamphlets
Computer jets or cartridges
Pencils, pens, markers

MODELS

1. Students will hike, with teacher supervision, existing trails in Littleton, NH.
 2. Students will evaluate the trails using a specially designed evaluation sheet for informational markers, length, and difficulty.
 3. Students will evaluate existing NH and VT Appalachian Trail maps.
 4. Students will bike, with teacher supervision, areas that are considered for new trails in Littleton, NH.
 5. Students will be guided in the creation of rubrics to evaluate new trails.
 6. Students will evaluate new trails, designed by other students, with the rubrics that they have designed to fit the task.
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REFLECTION

1. Book Journaling - students write and sketch about learning experience in journals – what they think they learned, what they wanted to learn, and what they were excited about the project
 2. Video and oral journaling with Flip Camera for class evaluation
 3. Viewing photographs of trails and participation
 4. Graffiti exercise with Post-It notes on the board as a brainstorming session about the project – pros and cons
 5. Tributaries and Dams exercise about how the project has impacted Littleton, NH
 6. Get Off the Fence – Take a Stand discussion regarding success of the project
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STUDENT ASSESSMENT

1. Brochure/pamphlet evaluation by the English Department
 2. Tests and/or quizzes regarding core information about the project
 3. Book reports on Appalachian Trail history, construction, and maintenance
 4. Assessment of trail surveys by participants using the trails
 5. Teacher assessment by walking the trails and comparing the information in the brochures with actual findings
 6. Written exercise for the students to explain the basic elements of the project from the initial discussions to the final product using grading rubrics
 7. Feedback from several members of the partnerships regarding the success of the project
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FINAL CELEBRATION

1. Dedication of the project, with partnerships included, at the newly renovated Littleton Town Building with possible appearance of Governor Lynch (personal friend of mine)
 2. Presentation of brochures or pamphlets to the Littleton School Board and the Littleton Board of Selectmen
 3. Daisy Bronson “All School” Trail Walk with teachers and students
 4. Community Day Trail Walk
 5. Newspaper coverage of all activities
 6. Radio announcements regarding new trail system
 7. Channel 2 (local school channel in Littleton) student and teacher interviews
 8. WMUR (state television station) coverage of the new trail system
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YOUR EVALUATION OF THE UNIT

1. Surveys to people who walked the trails
2. Student questionnaires regarding the value of the project and its benefits to the Littleton community
3. Observation of usage of the trails
4. Discussion with the partners to determine the success of the project
5. Student discussion of the pros and cons of the project
6. Examination of notes and reflections from the beginning to the end of the project

