A Trail To Every Classroom (TTEC)  
Curriculum Development Tool

UNIT DESIGN COVER SHEET

Author contact: Priscilla Didio, Kate Fish

School name, state and town: Bethlehem Elementary School, Bethlehem, NH

Title: Navigating the New Hampshire Notches along the Appalachian Trail: Local Legends and Colorful Characters

Abstract/Vignette: Throughout the history of the White Mountains, humans have impacted their environment, and the environment has impacted them. Understanding this relationship will lead to pride and respect for their region, ultimately empowering students to become stewards of the land.

Grade level(s): Please check all that apply.

- [ ] K-2  - [ ] 3-5  - [x] 6-8  - [ ] 9-12  - [ ] College and Lifelong Learning

Discipline: Please check all that apply.

- [ ] Art and Music  - [ ] Health and PE  - [ ] Foreign Language
- [x] Literature and Language Arts  - [ ] Mathematics  - [x] Science
- [x] Social Studies and Geography  - [ ] History  - [ ] Technology

Year Developed: 2010

Period (month, week, year): Year

Teaching environment:

- [x] In the Classroom (indoors)  - [x] On the Trail
- [ ] In the Community  - [ ] Online/Virtual
A Trail to Place-Based Service-Learning Curriculum

Start Here!

Big Idea
What is the main idea you want your students to come away from this unit knowing? Throughout the history of the White Mountains, humans have impacted their environment, and the environment has impacted them. Understanding this relationship will lead to pride and respect for their region, ultimately empowering students to become stewards of the land.

Service Project
What project(s) could your class undertake that would actively engage your students in learning about this theme? What could the final product be?
1. Sixth graders will develop a youth friendly booklet of legends for Crawford Notch and Franconia Notch.
2. Each team of students will learn more about how the harsh environment of these notches impacted local residents in the early pioneer days.
3. Bring books to AMC Huts in the notches to inspire young hikers to learn more about the harsh conditions in the local area.
4. Distribute books to local libraries and historical societies.

State Standards
(Objectives/Anchor/Outcomes)
Which elements of the state framework of standards does this unit address? What are the skills and outcomes you are working towards?
2. Social Studies: Skill 2.1, 2.2, 2.3.

Skills and Habits of Mind
What are the academic or life skills students will gain from this unit? What habits of mind do you expect them to demonstrate?
1. Highlighted Skills for Science, Social Studies, and Language Arts
   - Understanding the importance of conservation and preservation.
   - Understanding why people first came to the White Mountains and why they continue to come.
   - Selecting a legendary topic to research.
   - Using the GPS and topographic map reading skills.
   - The concept of oral traditions and legends.
   - The importance of teamwork and cooperation.

Essential Questions (Unit Objectives)
What are the essential questions that will help guide students toward understanding the Big Idea?
1. What environmental features in Crawford Notch and Franconia Notch make the area unique?
2. How can we preserve our local history and pride and respect for their region?
3. How can we preserve our local history and pride and respect for their region?

Student Role
(Youth Voice)
How will your students express ideas, be involved in project decisions, and evaluate outcomes?
1. Reflective writing during and after each of four fall hikes focusing on environmental impact.
2. Selecting a legendary topic to research.
3. Choose local individuals to interview.
4. Decide how to create (or recreate) a legend.
5. Decide how to present the final version of these legends.
6. Hike to AMC Huts and deliver books.
7. Monitor the use of the booklet and the impact it has had on other young people (survey).

Community Connections
What opportunities or needs exist in your school or community that could be addressed by a student project related to your big idea for learning?
1. Parent involvement through fall hikes.
2. Interview community members.
3. Guest speakers.
4. Utilize legend books to inform visitors about White Mountain History.
5. Establish connections with local libraries and historical societies.

Partnerships & Benefit(s)
Who are potential community partners that could assist you in this project? What are the potential benefits for your class and your partners of working together?
1. Trails to Every Classroom
2. Appalachian Trail Conservancy
3. Appalachian Mountain Club
4. White Mountain National Forest (Clare Long)
5. Franconia Notch State Park
6. Crawford Notch State Park
7. Local Historical Societies
8. Conway Scenic Railroad-information and contacts
9. Wayne Presby-descendant of Hattie Evans
10. Ben English-conducted extensive research on English Jack
11. Appalachian Highland Center

Projects & Examples
How will students understand the expectations for their project? What exemplars of student work will they see? What opportunities will there be for them to critique each other’s work?
1. Provide students with sample books and pamphlets.
2. Discuss grading rubrics with students prior to beginning.
3. Display TTEC AT map.
4. Review peer editing strategies.

Models & Examples
Describe resources (books, articles, materials, supplies) you will use to support this unit?
- We utilized a variety of resources. These included local historical societies, various books, internet sites, local citizens, and materials and information gathered and given by the TTEC.
- 1. Books and teacher prepared instructional materials
- 2. Internet Sites
- 3. Cameras, GPS, Laptops, Topographic Map, and SmartBoard

Resources
- Highlighted Skills for Science, Social Studies, and Language Arts
- Understanding the importance of conservation and preservation.
- Understanding why people first came to the White Mountains and why they continue to come.
- Selecting a legendary topic to research.
- Using the GPS and topographic map reading skills.
- The concept of oral traditions and legends.
- The importance of teamwork and cooperation.

Reflection
How will reflection be built in to your curriculum and activity(ies)?
1. Observation and reflections with Outdoor Education note books.
2. Synthesize reflections into haiku poems for publication.
3. Gather surveys and reflect on results.
4. Write letters to future sixth graders about the hiking experience.

Student Assessment
How will you evaluate the unit and make note of what worked well and what could be improved? How will you analyze and interpret project outcomes?
- 1. Student input and participation
- 2. Community reaction and participation
- 3. Rubrics
- 4. Personal reflection

Final Celebration
How will you celebrate the success of your unit and share its results with the school and community?
1. Published books shared at Coffee House celebration
2. Challenge audience to locate the places named in each legend
3. Possibly visit some of the sites of these legends

Your Evaluation of the Unit
How will you evaluate the unit and make note of what worked well and what could be improved? How will you analyze and interpret project outcomes?
1. Student input and participation
2. Community reaction and participation
3. Rubrics
4. Personal reflection

Project Name: Navigating the New Hampshire Notches Along the Appalachian Trail: Local Legends and Colorful Characters

Teacher(s): Priscilla Didio and Kate Fish

Grade Level: Sixth Grade

Time Frame: Fall 2010 to Spring 2011
A Trail to Every Classroom Project
Priscilla Didio and Katherine Fish, Bethlehem Elementary School Grade 6
Time Frame: Fall 2010 (hiking and researching)
Winter 2010 -11 (creation of legend booklets)
Spring 2011 (deliver booklets to AMC Huts along the AT)

Navigating the New Hampshire Notches Along the Appalachian Trail:
Local Legends and Colorful Characters

Background:
The sixth graders at Bethlehem Elementary School have been active participants in an extensive Outdoor Education Program for 15 years. The program includes a series of four fall hikes in the White Mountains of New Hampshire, a winter lecture series, and the preparation for and participation in a spring survival camping overnight. The Trails to Every Classroom program has helped us focus our fall hiking program in a new way, making certain that all students realize the importance of their heritage and place, and learn to become better stewards of the land for the future.

This fall we redesigned our program to focus on place-based education and service learning. In the past, we did not have a service learning component that tied us back to the community. This new service project was the crucial element for motivating students and making them feel empowered to make a difference in their community.

Our new program has a three tier approach. In social studies, students will conduct a mapping project of the Appalachian Trail (See Appendix I). In outdoor education, students will hike four trails in both Franconia and Crawford Notch, and complete a variety of science and history-based activities (See Appendix II). In language arts, students will research and write their own legends about early settlers or Native Americans that lived in these notches (See Appendix III). Finally, these legends will be compiled into two books that students will distribute throughout their community and along the Appalachian Trail.

Big Idea:
Throughout the history of the White Mountains, humans have impacted their environment, and the environment has impacted them. Understanding this relationship will lead to pride and respect for their region, ultimately empowering students to become stewards of the land.
An estimated six million people visit the White Mountains each year to experience the wealth of natural resources that are available, especially along the Appalachian Trail. What many people fail to realize, including our own students, is that the White Mountains are rich both naturally and culturally. These mountains and trails are the setting for some of the most interesting adventures, mishaps, and struggles for preservation. Unfortunately, these important bits of history are becoming lost or simply forgotten. Our goal is for students to not only appreciate and experience the natural beauty around them, but also to research and care about their local history. Making connections to the past will ensure that our students want to protect and preserve these areas. In turn, students will share their knowledge with others to help instill a sense of connection and respect for this area.

**State Standards:**

**Science (S:LS3:6:1.1)**

Provide examples of how all organisms, including humans, impact their environment; and explain how some changes can be detrimental to other organisms

**Science (S:LS3:6:1.2)**

Explain how changes in environmental conditions can affect the survival of individual organisms and an entire species.

**Science (S:LS2:8:1.2)**

Explain that in all environments, organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter, and that in any particular environment the growth and survival of organisms depend on the physical conditions.

**Science (S:LS2:6:3.1)**

Define a population as all individuals of a species that exist together at a given place and time; and explain that all populations living together in a community, along with the physical factors with which they interact, compose an ecosystem.

**NH Social Studies Grade Level Expectations 5-8**

**Skill 2.1.-Acquiring Information**

A.1. Use economic and geographical data, historical sources, as well as other appropriate sources
A.3 Draw on the diversity of social studies-related sources, such as auditory and visual sources, such as documents, charts, pictures, and music

B.1. Distinguish between primary and secondary sources

B.3 Distinguish between facts, interpretations, and opinions

B.6 Draw from the source information at a level appropriate to the task at hand, i.e. skimming for facts

B.8 Cite sources accurately and completely

**Skill 2.2 Organizing and Communicating Information**

G. 1. Draw inferences from factual material

G.2. Recognize that more than one reasoned interpretation of factual material is valid

G.3. Compare and contrast credibility of differing accounts of the same event

G.6 Reinterpret events in terms of what have happened, and show the likely effects on subsequent events

**Skill 2.3 Real World Applications of Social Studies Skills**

K.6. Participate in community projects such as voter registration, conservation, and heritage studies

SS:GE:6:1.2: Apply the spatial concepts of location, distance, direction, scale, movement, and region

SS:GE:6:1.3: Utilize maps, globes, graphs, charts, models, and databases

SS:GE:6:2.2: Describe how places and regions preserve culture

SS:GE:6:3.4: Explain how human activities influence changes in ecosystems

SS:GE:6:4.4: Analyze the spatial patterns of settlement

SS:GE:5:5.1: Understand the consequences of human modification of the physical environment

SS:GE:5:5.3: Appreciate how characteristics of different physical environments provide opportunities human activities or place constraints on human activities

**Language Arts- New Hampshire Core Curriculum Standards**

**College and Career Readiness Anchor Standards for Reading and Writing 6-12**

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

R.4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figuratively
R.10. Read and comprehend complex literary and informational texts independently and proficiently.

W.3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

W.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

W.5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

W.7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

W.8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

W.9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

**Essential Questions (Unit Objectives):**

**Science:**
- What environmental features in Crawford Notch and Franconia Notch make the area unique? (ecosystem of each Notch)
- What are some of the important species that make Crawford Notch and Franconia Notch their home?
- How has the rugged environment of the Notches affected the social history of the area?
- How can people today make positive changes to ensure the protection of NH Notches?

**Reading:**
- What are the characteristics of a legend?
- How are legends used to help people remember their past?
- What are the main parts to any well-written piece of literature?

**Social Studies:**
- In what ways has the Appalachian Trail influenced these notches?
- How does the environment impact how people live and where they live—past and present?
- How do people impact their environment—past and present?
- How have attitudes about natural resources and conservation changed over the last hundred years (for this area)?
**Language Arts:**

- How can we preserve our local history and share it with others?
- How can our writing encourage and inspire others to visit and protect these areas?

**Student Role (Youth Voice):**

Our TTEC project will help students gain a better understanding of their local history and their role in preserving it for the future. Although it is important we have adult supervision to ensure safety when students are actually on the trail, our adult leaders are trained in facilitating small groups of students to make sure each person experiences the outdoors on a personal level. Opportunities for student input will occur throughout our fall hiking program and continue into the winter session. Ultimately, our students will deliver the final product to AMC Huts in the future. Other opportunities include:

1. Reflective writing during and after each of four fall hikes.
2. Selecting a legendary topic to research that will prove interesting for other middle grade students to read about.
3. Choose local individuals to interview.
4. Decide how to create (or recreate) a legend based on the facts of their chosen topic.
5. Decide how to present the final version of these legends in a format that will be easy for kids to understand, portable enough to carry to the AMC Huts, and unique in its content.
6. Hike to AMC Huts and deliver booklets.
7. Monitor the use of the booklet and the impact it has had on other young people (survey).

**Community Connections:**

Creating the legend books will strengthen our ties between the school, home, and the community. Students will realize that many people in their own community are valuable informational resources. In some cases, descendants of the people that will be studied live in our community and have children in our school. This provides some great opportunities for interviews, guest speakers, and phone conversations. Many community members are eager to help us with our project and have offered their time and knowledge.

Our legends will be targeted toward children. Many of the resources and books about the White Mountains are aimed at adults. The language can be confusing and rather dry. The stories are also scattered among many different books or pamphlets. Our legends will be designed to be exciting, educational, and reader-friendly. Our students will want to reach as many children and adults as possible. We hope that visitors to this area will care more about preserving these resources if they know the stories of the people who loved this area so many years ago.
**Skills and Habits of Mind:**

1. Understanding the origins of the Appalachian Trail in the notches and how it has affected our area (social studies).

2. All organisms impact their environment and some changes can be detrimental to other organisms. People have the responsibility to understand and limit detrimental impacts (science).

3. Understand that the conditions in the environment can affect the survival of individual organisms, such as people living in the harsh conditions of NH notches (science).

4. Competition for resources impacts the survival of people and other organisms in northern climates (science).

5. Describe the ecosystem of northern NH notches and the populations that survive there (outdoor education, science, and social studies)

6. Hike Safe and Leave No Trace Principles (four hikes in the notches and social studies)

7. Utilizing the GPS and topographical map reading skills (hikes and social studies class)

8. The importance of teamwork and cooperation (hikes and projects)

9. Understanding why people first came to the White Mountains and why they continue to come (social studies project and legends project)

10. The concept of oral traditions and legends (reading)

11. Develop interpersonal skills (interviews)

12. Understand the process of researching a topic. Utilizing multiple sources-primary and secondary sources, people, newspapers, and the internet (social studies).

13. Utilizing the five themes of geography to learn about our area (social studies).

14. Understanding the importance of conservation and preservation (science).

15. Developing observational skills and reflection (science and outdoor education).

16. Practice revising and editing written pieces. Creating a polished piece of writing to be published (language arts).
Service Project:

Sixth graders will develop a youth friendly booklet of legends for Crawford Notch (Ms. Fish’s class) and Franconia Notch (Mrs. Didio’s class). Each team of students will learn more about how the harsh environment of these notches impacted local residents in the early pioneer days, choose an especially interesting (gruesome) story to research, and create an original legend based on the facts of the story. The several legends will be bound in a booklet, illustrated, and taken to AMC Huts in the notches to inspire young hikers to learn more about the harsh conditions in the local area. These books will also be distributed to our library, the town library, local historical societies, the Highland Center in Crawford Notch, and the Old Man of the Mountain exhibit in Franconia Notch. The number of copies that we will make will depend on time and money. This year, we will limit the amount of copies and use a survey to assess the effectiveness of the books.

Partnerships and Benefits:

- Trails to Every Classroom – A.T. Map and information
- Appalachian Trail Conservancy – history of trail through notches
- Appalachian Mountain Club – child-friendly, exciting brochure, funding
- White Mountain National Forest (Clare Long) – expert information
- Franconia Notch State Park – exchange of information and ideas
- Crawford Notch State Park - exchange of information and ideas
- Local Historical Societies – ties with community that results in pride and appreciation
- Conway Scenic Railroad-information and contacts
- Wayne Presby-descendant of Hattie Evans
- Ben English-conducted extensive research on English Jack
- Bill O’Connor- Franconia State Park
- Appalachian Mountain Club Highland Center
Resources:

We utilized a variety of resources. These included local historical societies, various books, local citizens, and materials and information gathered and given by the TTEC. Below is a list of some of the resources we used.

Books:


Downs, Virginia C. *Life by the tracks*. 1983.

Fourth Grade Students of St. Mary’s Catholic School Church. *Haiku Hike*. 2005.


Melcher, Edward. *A sketch of the destruction of the Willey family by the White Mountain slide on the night of August 28, 1826*. 1880.


Spaulding, John H. *Historical Relics of the White Mountains*. 1855.

Tate, Junius R. *Walkin’ with the Ghost Whisperers*. 2005.

Willey, Benjamin G. *Incidents in White Mountains History*. 1856.

**Internet Sources:**

Appalachian Trail Conservancy: http://www.appalachiantrail.org/site/c.mqLTIYOwGlF/b.4805419/k.8806/Appalachian_Trail_Overview.htm

The Appalachian Trail State by State: http://www.fred.net/kathy/at/atstate.html

Bartlett Historical Website: http://www.bartletthistory.org/bartletthistory/crawfordnotch.html

Official Appalachian Trail Maps: http://rhodesmill.org/thefox/maps.html

New Hampshire State Parks: http://www.nhstateparks.org/

White Mountains History: http://whitemountainhistory.org/

USDA Endangered Plants: http://plants.usda.gov/threat.html

http://www.Trails.com

**Materials:**

Digital cameras

GPS Units

Topographical Maps

Plant and Animal ID books

Laptops and SmartBoard

**Models and Examples:**

In language arts, students will spend several weeks listening and reading local legends (see reading list above). Students will learn how legends differ from other literary works. Books will be provided for students, so they can read the different versions of some local legends. Several pamphlets and books will also be brought in to show students what their final project might look like. We will also discuss possible illustrations or photographs. A rubric will be used to clearly indicate what the expectations will be for the written legend (Appendix III). During writing workshop, peer editing will take place.
In social studies, students will construct a large scale map of the Appalachian Trail. Each student will be responsible for one state. Ultimately all the states will need to be assembled by the class to link the Appalachian Trail along the East coast. The fifteen foot map provided by TTEC will be used as an example. Past examples of mapping projects (for different regions) will also be utilized to give students a sense of how important it is to work together to create a final accurate representation. A rubric will be utilized to assist students with understanding project expectations (Appendix I).

**Reflection:**

Students utilize an Outdoor Education notebook (journal) for activities while hiking. During each hike, students have an opportunity to observe, draw, and reflect on natural scenes and objects. By the final fall hike, students are able to synthesize their reflections into haiku poems for possible publication in the local newspaper (Appendix II).

This year we have included another reflective writing piece. Students will craft a letter to future sixth graders about their hiking experience. These letters will include how to be prepared, what to expect, and how this has affected their attitude toward the natural world.

**Student Assessment:**

Outdoor Education hike activities are graded on a point scale with clear expectations outlined in advance. For the legend writing, we will incorporate our sixth grade writing rubric which assesses all six writing traits (ideas, topic development, organization, conventions, voice, and sentence fluency). For this piece, we will focus specifically on “voice” to help students add color to their local legend. In social studies, students will be assessed on their mapping and research project with a rubric.

**Final Celebration:**

When all of the writing is complete and the booklet has been published, sixth graders will invite partners, community members, and families to hear their legends read aloud at an in-school “Coffee House.” Each student will have the opportunity to emphasize the meaning of the project to them as they challenge the audience to find the places named in each legend on their next hike, and help protect and preserve the now pristine environments of the notches for future generations.
Evaluation:

Students will be evaluated throughout the Appalachian Project in the respective classes (Reading, Social Studies, Outdoor Education, and Language Arts). Rubrics, reflections, and point scales will all be utilized. Students will also offer input about the projects, what they enjoyed, disliked, and found most interesting. Parts of this project are new and we will expect to make changes based on student input and academic outcomes.
Dear Parents:

Throughout this school year, sixth graders will be actively involved in our Outdoor Education program. The program will include fall hiking, winter explorations, special guest speakers, and our extensive spring survival unit featuring canoeing, water study, and an overnight camping trip. Students will be involved in science investigations, environmental studies, journal writing, math, social studies, and reading while in an “outdoor classroom.” Our program this year will also incorporate a study of the legends and lore of the White Mountains, complete with the creation of a published brochure or pamphlet to deliver to our local AMC Huts. Please be aware that students will be responsible for any assignments associated with an outdoor education program even if they miss the event.

For safety and comfort, it is important for your child to have a sturdy, well fitting pair of walking shoes or hiking boots (high-top sneakers that lace tightly would be fine). In addition, your child will need a daypack to carry the following items:

- Outdoor Ed. notebook
- wool socks (or equivalent)
- wool hat (or equivalent)
- tissues
- string
- leak proof water bottle

- 2 pencils with erasers
- gloves
- wool sweater or packable jacket
- large garbage bag or raincoat
- sunscreen
- bandaids

Before our first hike, we will talk about being prepared for hiking, the need to dress in layers, and pack thoroughly, yet lightly. In terms of organization, it may help to keep all hiking gear packed and ready, even between hikes, to avoid a last minute scramble to find everything.

Prior to each hike you will receive detailed information about that particular trip. **We will need chaperones for all hikes**, and hope you will join us on at least one of these adventures if you can. The dates for this fall are listed on the back for planning purposes. Please call (at school or home) if you have any questions. We are looking forward to exciting and rewarding adventures in the outdoors!

Sincerely,
Mrs. Didio (444-6841)
Ms. Fish (986-6834)
## Appalachian Trail Grading Rubric

<table>
<thead>
<tr>
<th>Grade</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Map/Effort</strong></td>
<td>Exceeded requirements</td>
<td>All requirements met</td>
<td>Some requirements missing</td>
<td>Many requirements missing or late</td>
</tr>
<tr>
<td></td>
<td>Clearly labeled and drawn accurately</td>
<td>Clearly labeled and drawn accurately</td>
<td>Difficult to read. Some items labeled</td>
<td>Labeled incorrectly</td>
</tr>
<tr>
<td></td>
<td>Focused-used class time effectively and efficiently</td>
<td>Needed a few reminders to stay on task</td>
<td>incorrectly</td>
<td>Distracted others and could not work</td>
</tr>
<tr>
<td></td>
<td>Helped others-followed all directions</td>
<td>Needed assistance with directions</td>
<td>Difficulty focusing, distracted others, did not follow all directions</td>
<td>Did not try to follow directions</td>
</tr>
<tr>
<td><strong>Content (Research Paper)</strong></td>
<td>Exceeded requirements-on time</td>
<td>Requirements met-on time</td>
<td>Some requirements missing-late</td>
<td>Many requirements missing-very late</td>
</tr>
<tr>
<td></td>
<td>All information accurate and correct. Presented additional information.</td>
<td>Paper had some spelling and mechanical problems</td>
<td>Gave some incorrect information</td>
<td>Gave inaccurate information and facts</td>
</tr>
<tr>
<td></td>
<td>Revised and edited final copy</td>
<td>Paper showed solid understanding of research topics</td>
<td>Showed basic or rudimentary understanding of research topics</td>
<td>Did not provide information about the research topics</td>
</tr>
<tr>
<td></td>
<td>Paper showed in-depth knowledge and understanding of research topics</td>
<td>Correct MLA citation with reliable source</td>
<td>Many mistakes in final copy</td>
<td>Research report was incomplete or poorly done</td>
</tr>
<tr>
<td></td>
<td>Correct MLA Citation with a reliable source</td>
<td>Research-style notes were accurate and listed source</td>
<td>Incorrect MLA citation</td>
<td>No MLA citation</td>
</tr>
<tr>
<td></td>
<td>Research-style notes were accurate and listed a source</td>
<td>Visuals used-showed effort and thought</td>
<td>Research style notes were incomplete and a source was missing</td>
<td>No research-style notes</td>
</tr>
<tr>
<td><strong>Presentation</strong></td>
<td>Colorful visuals-showed a lot of effort and thought</td>
<td>Visuals used-showed effort and thought</td>
<td>Visals were messy or not accurate</td>
<td>No visuals used</td>
</tr>
<tr>
<td></td>
<td>Well prepared</td>
<td>Prepared</td>
<td>Some eye contact</td>
<td>Little to no eye contact</td>
</tr>
<tr>
<td></td>
<td>Great eye contact</td>
<td>Good eye contact</td>
<td>Somewhat prepared</td>
<td>Poorly prepared</td>
</tr>
<tr>
<td></td>
<td>Taught with enthusiasm</td>
<td>Followed most guidelines</td>
<td>Missed many requirements</td>
<td>Making requirements missing</td>
</tr>
<tr>
<td></td>
<td>Followed all guidelines</td>
<td>On-time</td>
<td>Late</td>
<td>Very late</td>
</tr>
</tbody>
</table>

### Comments:

#### Map/Effort:
- Exceeded requirements
- Clearly labeled and drawn accurately
- Focused-used class time effectively and efficiently
- Helped others-followed all directions

#### Content (Research Paper):
- Exceeded requirements-on time
- All information accurate and correct. Presented additional information.
- Revised and edited final copy
- Paper showed in-depth knowledge and understanding of research topics
- Correct MLA Citation with a reliable source
- Research-style notes were accurate and listed a source

#### Presentation:
- Colorful visuals-showed a lot of effort and thought
- Well prepared
- Great eye contact
- Taught with enthusiasm
- Followed all guidelines
- On-time

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**Name:** ______________________________  **Project Grade:** ______________________________  **Date:** ______________________________
Appalachian Trail Mapping & Research Project

Overview: You will learn about the Appalachian National Scenic Trail (A.T.) by conducting a mapping and research project.

Goals: Our goals for this unit include...

- Understanding map scale and utilizing it to solve problems
- Understanding how the AT has impacted our region
- Understanding how to use and read an atlas and other reference volumes to gather information
- Understanding the steps in conducting research (identifying reliable sources, taking Research Style Notes, and using MLA citation)
- Understanding the five themes of geography, with an emphasis on human-environment interaction
- Building cooperative learning skills
- Practicing public speaking skills
- Researching how the environment impacts settlement

Procedure: This project has several components.

1. Complete notes and gather your own notes on the A.T.
2. Select a state to research—begin map scale project
3. Conduct research
4. Write a mini-research paper
5. Present your findings and complete the A.T. map

Grading: Homework assignments, use of class time, map building, and effort will count toward your final social studies grade. A rubric will be used to determine your final grade on the presentation and research paper.

Due Dates: Due to changes in the schedule, due dates will be assigned as the unit progresses.
A.T. Notes I

I. What is the Appalachian National Scenic Trail or the ____________?

A. Nation’s longest __________________________
   
   1. Approximately _______________long
   
   2. Appalachian mountains (NOT the trail) extends from 
   ________________ to ________________

B. Part of the ______________________________ (privately managed)

C. Benton ____________ came up with the idea-wrote paper
   
   1. goal:_______________________________________

D. Completed in ________________

E. Passes through _______________ states

F. Location for more than 2,000 endangered, ________________, or 
   ________________ plants and _____________

G. Crosses through _______________ national parks

H. Starts or ends _______________ on Springer Mountain

I. Starts or ends ________________ in Baxter State Park in Maine

II. How is the A.T. Maintained?

A. Approximately ________________ volunteers annually

B. Approximately ________________ hours of work annually

C. More than ________________ help keep it up and running

III. Interesting facts about the A.T.

A. Approximately ________________ white blazes mark the A.T.

   1. blaze:____________________
B. More than ______________ have hiked it

C. Some people hike it bit by bit ________________

D. Some people hike it all the way through called ________________

E. Takes about ________________-footsteps

F. Generally, people start in the __________ and end in the ___________
   1. Reason: weather

G. Terrain ________________
   1. Flat = 1 to a 10= use of hands required

H. Different pronunciations depending on where you live
Information Gathering about the A.T.  Part I

Name:

Directions: Complete the following blanks by utilizing the Appalachian Trail Conservancy website.

Go to Google, type in Appalachian Trail Conservancy, Click on it

1. What is the name of this website?
____________________________________________________________

2. What does it mean to conserve something?
____________________________________________________________

3. Please go to the “Conservancy” Tab and scroll down to “Who We Are.” Read the mission statement. What is this organization trying to conserve?
________________________________________________________________________
________________________________________________________________________

Go to the Trail Tab, About the Trail, and State by State link. Please complete the following blanks or question. You may need to click on highlighted words or links.

4. What is the greatest difference between the A.T. and other national parks?
________________________________________________________________________
________________________________________________________________________

5. List three ways you can help maintain the trail. If you had to pick one that you were interested in, what one would it be and why?
__________________, ________________________, ________________________
6. Explain the difficulty rating scale. Why would it be important for a hiker to understand this scale?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

7. The A.T. can be broken down into five different regions. First list the regions.

Regions:
1. ____________________________________________
2. ____________________________________________
3. ____________________________________________
4. ____________________________________________
5. ____________________________________________

List the states in each region
1. N.N.E. _______________________________________
2. S.N.E. _______________________________________
3. M.A. ________________________________________
4. Virginias _____________________________________
5. S.A. ________________________________________

8. Click on New Hampshire. Answer the following questions...

a. How many miles should hikers plan on each day in the White Mountains, why?
b. Define ascent and descent (try to figure them out from the text).

__________________________________________________________________

__________________________________________________________________

c. How is this section of the trail described? What would happen if you weren’t prepared?

__________________________________________________________________

__________________________________________________________________

9. When you click on each state, you are given an overview about the A.T. in that state. At the bottom of this page, there is a table that summarizes the key information (At A Glance).

Please click on each state and determine which state has the greatest A.T. mileage (record the miles), and which state has the lowest A.T. mileage.

Highest A.T. mileage:______________________________________________

Lowest A.T. mileage:______________________________________________
Animals and Plants along the A.T. Part II

Research Style Notes Practice

Name:

Directions: Go back to the Appalachian Trail Conservancy website. Click on “The Trail” tab and then go to Plants and Animals. You should see five categories: Wildflowers, Trees and Shrubs, Mammals, Reptiles and Amphibians, and Bird Calls.

You need to click on each of the five tabs. Under each tab select one plant or animal that interests you. Record the tab and name below. Next, read the paragraph(s) slowly and carefully. Then write down four facts that you remember (try to do this without going back to the text).

1. Tab:__________________ Name:________________________

1._______________________________________________________

2.________________________________________________________

3.________________________________________________________

4.________________________________________________________

2. Tab:____________ Name:________________________

1.________________________________________________________

2.________________________________________________________

3.________________________________________________________
Appalachian Trail Mapping and Research Requirements

Name:

You will become an expert on the A.T. in your selected state. You must complete the requirements listed below. Please take your time and do not rush.

I. Large Scale Map (No pencil on the front of your final map)

1. _____ Sharpie border color (See Ms. Fish)

Use the Big A.T. Map, the Atlas, hand outs, and other resources

2. _____ State and National parks labeled and colored green

3. _____ List 3-5 mountains the A.T. crosses

4. _____ Locate and label a major body of water the A.T. crosses

5. _____ Label 3-4 cities/towns the A.T. crosses or passes near

6. _____ Put together the classroom A.T. map

7. ____ (AT THE END) draw in the A.T.

8. ____ Name of state (LAST)

9. ____ State capital (LAST)

II. Fact Sheet (Use the resources provided)

1. _____ Complete the fact sheet (accurate information)

III. Mini Research Report

1. _____ Complete note cards

2. _____ Provide note cards with sources
3. ____Write 1-2 paragraphs about an endangered, threatened, or rare plant along the A.T. in your state. Draw a picture to accompany your report (prefer it typed).

4. ____Write 1-2 paragraphs about an endangered, threatened, or rare animal along the A.T. in your state (prefer it typed).

IV. Presentation

1. ____Introduce your state

2. ____Locate it on the classroom A.T. map

3. ____Tell us which region it belongs to

4. ____Tell us the A.T. mileage in your state

5. ____Show us where the A.T. crosses your state—tell us some parks it crosses and mountains

6. ____Create a poster to inform hikers about either a threatened plant or animal in your state—along the A.T. (Think about what your poster should have on it for information. How will it catch a person’s attention and make them want to read it? What can they do to help protect these plants and animals?)
Appalachian Trail Mapping Project

Please do not go ahead. Listen and complete each step when asked. Use a sharpened pencil and draw lightly.

1. Use the atlas to label your blank map correctly (see states below)

2. Find your state on the map.

3. Highlight your state (stay within the boundaries).

4. Starting from the top of your state, number each square that your state is in (Count every square, even if only a small piece of your state is in that square). If you have questions raise your hand.

5. Re-check your numbers. Have a partner check your numbers.

6. Raise your hand and ask Ms. Fish to check your numbers.

7. Cut around the STATE BOXES, not around the state outline.

8. Paperclip your cut-out state to the top of your map and write your name on the back of it (in pencil lightly)

9. Using a yard stick, a large piece of white paper, and a pencil create a 4 inch by 4 inch grid. This grid needs to be straight and accurate. Draw lightly.

10. Number each box on the large paper.

11. Using both maps, draw your state onto the large grid. Each box should correspond. Take your time. Make corrections as needed. DO NOT RUSH.

States to Label

<table>
<thead>
<tr>
<th>Maine</th>
<th>Virginia</th>
<th>Georgia</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Hampshire</td>
<td>New Jersey</td>
<td>New York</td>
</tr>
<tr>
<td>Vermont</td>
<td>West Virginia</td>
<td>North Carolina</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Maryland</td>
<td>Pennsylvania</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Tennessee</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Location</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>September 17 (Fri)</td>
<td>Pemi Trail (Franconia Notch)</td>
<td>Easy hike from Lafayette Campground to Profile Lake and back. Focus: weathering and erosion; conservation; legends and lore</td>
</tr>
<tr>
<td>October 1 (Fri)</td>
<td>Lost River Gorge</td>
<td>Short hike and caving. Focus: geology</td>
</tr>
<tr>
<td>October 15 (Fri)</td>
<td>Mt. Willard (Crawford Notch)</td>
<td>Moderate hike to spectacular view. Focus: glaciation; legends and lore</td>
</tr>
<tr>
<td>October 28 (Thu)</td>
<td>Lonesome Lake (Franconia Notch)</td>
<td>Moderate hike to lake and view. Focus: habitats; legends and lore</td>
</tr>
</tbody>
</table>
A.T. Fact Sheet

Name:

Use the Appalachian Trail Conservancy Website

1. State:____________________________
2. Region:__________________________
3. A.T. States that border it:______________________________
4. A.T. Mileage:____________________
5. Difficulty Rating:_____________________
6. Elevation Range:____________________
7. Trail Clubs:________________________

Use the World Atlas website (North America, United States)

8. Find the absolute location of the capital city

___________________________________________________________________

9. Determine the total area (square miles)

___________________________________________________________________

10. Record the highest and lowest elevation

___________________________________________________________________

___________________________________________________________________
Lonesome Lake Hike Activities

1. **Topographic map**
   Using the topographic map section on the back of this sheet, and the signs along the trail, answer the following questions.
   a. How many miles is it from the parking area to the AMC Hut?
   b. At what elevation do you start this hike?
   c. How many feet in elevation do you climb?
   d. What is the interval between contour lines on this map?
   e. Where do we cross the Appalachian Trail?
   f. What is the map symbol for the AT?
   g. What clue on a tree tells you we’ve crossed the AT?

2. **Conservation**
   Find and list three ways people have conserved this trail. Think about ways the trail has been maintained to avoid erosion and assist hikers.

3. **Observation**
   Find a tree along the trail to examine and observe. Think about how this tree is used by other organisms. Draw and describe the tree, including any plants or animals (or evidence of them) that depend on it for survival. Five (5) is the minimum number of organisms you must include.

4. **Haiku Poem**
   While hiking, take a quiet moment to observe and reflect. Write and illustrate (optional) a haiku poem about your observation. Be ready to share your haiku with the group while at the lake. Remember: haiku poems are usually about nature and use three lines (1) = 5 syllables, (2) = 7 syllables, (3) = 5 syllables.
   Example:  The hawk soared over 
             Spirit bird in my being 
             Guide to harmony

5. **Reflection**
   Write a letter to next year’s sixth grade class about the fall hikes. What would you like them to know to prepare for the hikes? What was your favorite part? What was your least favorite part? Be sure to include specific examples to support your opinions.

6. **Legend**
   You have heard a legend featuring through-hikers on the Appalachian Trail. Write a summary of the legend in a complete paragraph. Be sure to include the main characters and the major plot events.

Please take notes and do your rough drafts starting at the Notes tab of your Outdoor Education notebook. You will be evaluated on the final drafts of these activities that should be done in the front of your notebook. Please label your final copy with the name of the hike and number each activity in consecutive order. You will also receive a grade for your cooperation and effort during the hike. Final drafts are due one week from the hike date.
Lost River Gorge
Activities

1. **Geology Venn Diagram**
   Two types of granite make up most of Lost River Gorge: Kinsman Quartz Monzonite and Pegmatite. Use a Venn diagram to compare and contrast the two. Be sure to include information about rock type, formation, color, texture, minerals found in each, and resistance to weathering and erosion.
   (BONUS (5 pts.): What beautiful feature at Lost River exists because Pegmatite is more resistant to weathering than Kinsman Quartz Monzonite?)

2. **Human History Timeline**
   Answer the following questions using the information from our tour, the trail guide and the museum. Use the answers to create a timeline of Lost River history. Be sure all of the dates are spaced evenly and events are placed correctly on the timeline.
   a. Who discovered this geologic wonder and when? ____________________
   b. When did people first tour the gorge? ____________________
   c. What organization first protected Lost River and when? _______________
   d. What year did Hurricane Gloria destroy much of the boardwalk? ________

3. **Math**
   The Giant Pothole is about 60 feet high and 20 feet in diameter. If the entire pothole was still intact, what is the volume of water it could hold? (Hint: What shape would the pothole be? What is the formula for the volume of that shape?) Show your work.

4. **Pioneer Species**
   The rocky walls of Lost River Gorge are not a very inviting place for organisms to live. However, some fungi and plants survive.
   a. Find at least five (5) organisms that are growing on the rock faces.
   b. Describe and illustrate each one.
   c. Explain how you think they manage to survive.
   d. What purpose do these plants serve in the cycle of the forest?

5. **Writing – You Are There…**
   Imagine you were alive to see the formation of Lost River Gorge after the last Ice Age. Write a creative story about what you might see happening when the glacier receded. Give details about what a glacier does and how erosion helped form the gorge. Please have your rough draft done by Tuesday for a peer edit conference.

*Remember:* Please do rough drafts starting at the notes tab of your Outdoor Ed. notebook. Final copies of all activities should begin just after the last hike in the front of your notebook, clearly labeled with the title of the hike and numbered activities. You will be evaluated on your final drafts, as well as your cooperation and effort during the trip. All final drafts are due one week from the hike date.
Mt. Willard Hike
Activities

1. **GPS Activity**
   Fill out your group’s GPS activity sheet and give it to Ms. Fish at the summit. Be sure you have three waypoints and you have recorded the coordinate correctly. Write the actual name of objects here:
   a. 
   b. 
   c. 

2. **Observations**
   Make three observations, two from the trail on the way up and one at the summit. Your final copy should include a description of your observation spot including five to seven details and a colorful illustration. Use as many sensory words (sights, smells, sounds, etc.) as you can in your description, so that someone else could easily find the spot you’ve chosen.

3. **Scavenger Hunt**
   While hiking, find all of the items in the scavenger hunt list below. Be sure to leave items undisturbed. Check off each as you see it, after your chaperone has confirmed your sighting. (Note: your chaperone has a tree identification book.) You may cut this out and tape it into the front of your notebook for a final copy.
   - conifer
   - mammal
   - fern
   - lichen
   - beech tree
   - balsam fir
   - old culvert
   - moss
   - bird
   - fungus
   - granite
   - birch tree
   - red spruce
   - old carriage road
   - evidence of erosion
   - tracks (you can ID)
   - deciduous tree
   - trail marker
   - maple tree
   - hobblebush
   - centennial pool

4. **Glaciation**
   At the summit, what evidence do you see that might indicate a glacier (a mile-thick sheet of ice) once covered this area? (Hint: notice the shape of the valley below.)

5. **Legend**
   You have heard a version of one legend from Crawford Notch. Write a summary of the legend in a complete paragraph. Be sure to include the main characters and the major plot events.

Please take notes and do your rough drafts starting at the Notes tab of your Outdoor Education notebook. You will be evaluated on the final drafts of these activities that should be done in the front of your notebook. Please label your final copy with the name of the hike and number each activity in consecutive order. You will also receive a grade for your cooperation and effort during the hike. Final drafts are due one week from the hike date.
Willard GPS Activity Sheet

First Group: Fill in the line or section where you see an →

Second group: Fill in the rest of the blanks

Names: ________________________________________________________________

GPS Unit # __________

<table>
<thead>
<tr>
<th>GPS Coordinate (degrees, minutes, seconds)</th>
<th>Clue → A brief description of the object</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>→N_______________________________</td>
<td>→</td>
<td></td>
</tr>
<tr>
<td>→W_______________________________</td>
<td>→</td>
<td></td>
</tr>
<tr>
<td>Waypoint #_______</td>
<td></td>
<td></td>
</tr>
<tr>
<td>→N_______________________________</td>
<td>→</td>
<td></td>
</tr>
<tr>
<td>→N_______________________________</td>
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</tr>
<tr>
<td>→W_______________________________</td>
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<tr>
<td>Waypoint #_______</td>
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<td>→N_______________________________</td>
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<td>→W_______________________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waypoint #_______</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

→First group names: ________________________________________________________________
Dear Parents,

On Friday, September 17, the sixth graders will be hitting the trail for our first outdoor education adventure. We will hike the Pemi Trail along the valley in Franconia Notch looking carefully at natural and social history, and completing a variety of activities. Students will need to bring a snack and lunch, in addition to the regular outdoor education items on the list provided in your folder last week. Our schedule will be:

- 8:15 a.m. Depart from B.E.S.
- 8:45 a.m. Hike trail from Lafayette Place in small groups
  Have snack along the trail, make observations
- 11:00 a.m. Lunch at Profile Lake (bag lunch - no glass)
- 11:30 a.m. Work on activities
- 12:00 p.m. Return hike
- 1:30 p.m. Depart for school
- 2:00 p.m. Return

As always, we will rely on parent volunteers to drive and chaperone small groups. Please indicate below if you will be able to join us on this exciting adventure. Also, please sign the permission slip and return it by Monday, September 13th. You may use the attached form if you would like to order a bag lunch from school.

Thanks!
Mrs. Didio and Ms. Fish

(Detach and return on Monday)

“I give my permission for __________________ to participate in the Pemi Trail hike field trip. I recognize that there may be risks of personal injury associated with these activities and release (and hold harmless) the SAU #35, B.E.S., and their employees and volunteers assisting in these activities from any manner of actions or claims related thereto.”

_________________________  ________________
Parent Signature  Date

_____YES! I can drive and chaperone students for the Pemi Trail trip. I can transport ____ students with individual seatbelts.

(***Please be aware that a copy of your insurance coverage must be on file in the office in order to transport students – thanks!)
The Pemi Trail Activities

Natural History

1. **Observations**
a. Draw and describe at least five (5) different types of plant life you observe along the trail.
b. Do the same for five (5) different types of animal life; if you don’t see the actual animals describe and draw any evidence you find of their having been in the area. (For example: observing a hole a tree would provide evidence of a woodpecker using that tree to get food.)

2. **For the Birds**
a. Use your group’s binoculars to look for birds in the trees, wetlands, and grassy areas along the trail. **Draw** one bird you observe. Write a paragraph describing what that bird is doing. Use excellent describing words to make your paragraph come alive for the reader.
b. Spend a few minutes sitting quietly by Profile Lake. **Count** the number of birds you see using this lake and note what they are using it for (bathing, eating, resting?) Create a chart like the one below to tally your findings.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Tally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resting</td>
<td></td>
</tr>
<tr>
<td>Eating</td>
<td></td>
</tr>
<tr>
<td>Bathing</td>
<td></td>
</tr>
<tr>
<td>Other??</td>
<td></td>
</tr>
</tbody>
</table>

3. **Weathering**
View the Cannon Cliffs carefully as you hike. How do you think the huge pile of broken rocks at the base of the cliffs, called talus, was formed? (HINT: think about weathering and erosion)

Human History

4. **History of the Old Man**
While at Profile Lake, take time to read the history of the discovery of the Old Man of the Mountains then answer the following questions:

   a. Who discovered the Old Man?
   b. When was it first discovered?
   c. Why were the men at Profile Lake?

5. **Legend**
Listen carefully as your teacher reads a legend about the Old Man of the Mountains. Create a character web to describe the main character’s personality traits, then create a story map to write the main events of the story (use the graphic organizers on the back).

Please do “rough drafts” of all activities starting at the notes tab of your Outdoor Ed. Notebook. Rewrite your final drafts at the front of your notebook. Be sure to label your final copy with the name of the hike and number each answer. You will be graded on the final copy only, as well as your cooperation and effort during the hike. The final drafts are due one week from the hike date.