

A Trail To Every Classroom (TTEC) Curriculum Development Tool

UNIT DESIGN COVER SHEET

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School name, state and town: **Littleton High School,**
Littleton, NH

Title: **AT Student Ambassador Program**

Abstract/Vignette: *Students will learn how and why to promote the safe and sustainable use of the Appalachian Trail in their community.*

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

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

Discipline: Please check all that apply.

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

Year Developed: **2008**

Period (month, week, year): **Year**

Teaching environment:

- In the Classroom (indoors) Outdoors
- In the Community Online/Virtual

TTEC Participants:

Edward McMichael (Dual Enrollment Biology ; 12th Grade)

Cecilia Gayle Ross (Ecology ; 11th & 12th Grade)

Patricia Stiles (Advanced Biology ; 10th Grade)

It would be difficult to separate each teacher's contribution to this curriculum as it was an efficient, collaborative effort. All three teachers met on several occasions (as well as at the TTEC workshops) to map out the curriculum. Each teacher will be responsible for his/her own classes as to providing content, practice activities, reflection activities, gathering ideas, etc. Also, each teacher will conduct the field trips independent of the others to take GPS positions, photographs, flora identification, and collect other data. It is impractical and unwise to combine this number of students into one field trip on the Appalachian Trail. The strategy to compile all information gathered by the three teachers' classes still needs to be worked out. The feeling, however, is that a committee of a specific number of students representing each teacher's classes, selected by their peers, will meet with the teachers after school to review photos, GPS sites, bulletin board ideas, etc. to result in a product that will then be modified and ultimately approved by all members of all involved classes. This committee will not be from this year's classes, but from school year 2009-2010 students.

Planned TTEC Activities:

Spring 2009

1. Discuss Appalachian Trail – historical and geographical context; AT sections near Roanoke, VA.
2. Discuss bulletin board and brochure ideas and view photos of example bulletin boards and our bulletin board (already existing on the AT, but abandoned).
3. Brainstorm information to be included on bulletin board and in brochure.
4. Guest Speaker from Roanoke Appalachian Trail Club.
5. Practice use of GPS units and plant and wildflower identification keys.
6. Introduce and practice reflection ('Head, Heart, and Hands') and journaling techniques.
7. Discuss AT hiking etiquette and Leave No Trace principles.
8. Field Trip : Hike designated section of AT.
 - * use GPS units to mark points of interest, landmarks, etc.
 - * photograph and identify wildflowers, trees, vistas, and existing abandoned bulletin board.
9. Organize collected data and have students develop a 'suggested action plan' for next year's students.

Planned TTEC Activities (Cont.):

Fall, 2009

1. Repeat same activities as with students from Spring '09 (Fall '09 students will be different students), but make changes, additions, adjustments based on results of Spring '09 experiences and student feedback.
2. Field Trip : Hike designated section of AT ; confirm GPS points ; photograph and identify late wildflowers, trees, vistas to compare to spring.

Winter, 2009-2010

1. Design bulletin board and brochure layouts.
2. Get brochures printed (local printing company donation?).
3. Field Trip : Hike designated section of AT ; take winter photos at GPS points.

Spring, 2010

1. Field Trip : “Build” bulletin board and place brochures.
2. Field Trip : To McAfee Knob region of AT (a second entry to AT from Roanoke area) to possibly begin similar process as at first site (Daleville, VA).

A Trail to Place-based Service Learning Curriculum

Project Name: AT for Beginners
Teacher(s): Edward McMichael, Gayle Ross & Patricia Stiles
Grade Level: 10th - 12th
Time Frame: 2008-2010

Start Here!

Big Idea

What is the main idea you want your students to come away from the unit knowing? **Student familiarity with the section of the AT in their local community. Knowledge of AT in general. Development of the tools of communication necessary to acquire community involvement**

Youth Voice

How will you guide your students to express ideas, be involved in project decisions, and evaluate outcomes?

Brainstorm topics
Guest Speakers to introduce topics and spark interest and ideas
Practice use of the GPS and photographic techniques.
Web Quests for academic content.
Use of reflection strategies.

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?
Jack Noll; Forest Service; L. Adkins; Rke App Trail Club; Home Improvement stores; Print Shop; NHS Technology Teacher; Hollins Coll Bio Dept; Outdoor Activity Retailers
Increased:
info and use of AT; student engagement & pride in community involvement; student sense of place & ownership in community; student knowledge and appreciation of the natural world around them.

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?
Student responses to written and oral questions.
Reflection comments.
Comments from the community and parents.
Discussions with each other and partners.

State Standards/Outcomes

Which elements of the state framework of standards does this unit address? What are the skills and outcomes you are working towards?

Standards of Learning =
BIO 1, 4, 5, 7, 8, 9

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?
Gather information on local flora and fauna
Gather appropriate information that would help the community properly use and enjoy the AT
Identify selected features on the local section of the AT and map them with the GPS
Design brochure to entice newcomers to the AT
Design survey for AT participants

Final Product: Outdoor Bulletin Board

Resources

Describe resources (books, articles, materials, supplies) you will use to support this unit?
AT published information
Selected wildlife identification books
Leave No Trace literature
Ecology/Biology Reference books
Selected web sites
Search engines
Community Partners

Models

How will students understand where they're supposed to get? What exemplars of student work will they see? What opportunities will there be for them to critique each other's work?
Pictures of existing outdoor bulletin boards
Example brochures with diverse styles
Cooperative Learning Technique – Think, Pair, Share
Reflection Strategies

Reflection

How will reflection be built in to your curriculum and activity(ies)?
Use to express ideas from all students
Use to evaluate preliminary drafts.
Use to reinforce and check for understanding of content

Final Celebration

How will you celebrate the success of your unit and share its results with the school and community?
Presentation of brochures to students and partners at special gathering.
Distribution of brochures to local outdoor activity retailers, Chamber of Commerce, nearby motels, etc.
Post brochure on school system web page and Blackboard

Student Assessment

How will you assess student learning? How will you know if they have met the goals for the established outcomes?
Through reflection responses.
Analyses of written work
Accuracy of GPS points, quality of photographs and mapping.

Essential Questions (Content)

What are the essential questions that will help guide students toward understanding the Big Idea?
What and where is the AT?
How did the Appalachian Mt.s form?
What trees and wildflowers are common to our section of the AT?
What animals are common to our section of the AT?
What is the relationship between the abiotic factors on the AT to the types of plants and animals found there?
How can the community be informed of the local presence of the AT and how do we provide information on how to use it?
What information should the community know about the AT?

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? Think all disciplines.
Photography
Writing skills
Ecology / Biology of local organisms
Geologic history of home environ.
Observation and questioning skills and analytical thinking
GPS and other technology use
Mapping skills
Appreciation of nature
Sensitivity to man's impact on ecosystems
Cooperation/corroboration/Comm.
Community involvement is valuable
Work, problem solving & contributing to others can be fun

Community Opportunities

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?
Increase awareness of general public to the AT
Increase AT use
Communicate proper use of the AT to the public