A Trail To Every Classroom (TTEC)  
Curriculum Development Tool  

UNIT DESIGN COVER SHEET  

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School name, state and town:  Rangeley Lakes, Regional School, Rangeley, ME  

Title:  “Rangeley Trail to Every Classroom”  

Abstract/Vignette:  What a gift our region is and how many trails and waterways we have the opportunity to enjoy.  

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:  2009  

Period (month long unit vs. week long):  Year Round  

Teaching environment:  

☑️ In the Classroom (indoors)  ☑️ On the Trail  

☑️ In the Community  ☐ Online/Virtual
A Trail to Place-Based Service-Learning Curriculum

Big Idea
What is the main idea you want your students to come away with from the unit? What is the gift our region is and how many trails and waterways we have the opportunity to enjoy.

State Standards (Objectives/ Anchors/Outcomes)
Which elements of the state framework of standards does this unit address? What are the skills and outcomes you are working towards?
Maine Learning Results
- Process of Reading
- Informational Texts
Science and Technology
- Classifying Life Forms
- Ecology
- Continuity and Change
- The Earth
Communication
- Numbers and Number Sense
- Computation

Essential Questions
- How will students develop and plan food and ways of cooking for an invitational moonlight ski or snowshoe?
- What are the essential questions that will help guide students toward a Big Idea?
- What are the potential community partners that could assist you in this project? What are the benefits for your class and your partners of working together?

Inquiry, Analysis, and Knowledge, Concepts, and Patterns
- How will you guide your students to express ideas, be involved in project decisions, and evaluate outcomes?

Skills and Habits of Mind
- Using a GPS
- Planning & Preparing for a hike
- What to do if lost
- Appropriate gear
- Poetry writing
- Connecting text: self
- Connecting text: world
- Learning plant/animal ecology
- Learning to rate a trail

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?
- Our

Partnerships & Benefit(s)
- Teens to Trails
- Kids Consortium
- Maine ATC
- AMC (Appalachian Mountain Club)
- TRAC (Trails for Rangeley Area Coalition)
- Rangeley Lakes Heritage Trust
- Fit & Fun Program @ RLRS
- Maine Winter Sports Center
- Healthy Community Coalition
- Rangeley Trails Center
- Center for GIS
- Rangeley Outdoor Sporting Heritage Museum

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?
- Develop a fitness trail around the school property.
- Participate in a regional GPS trail-marking venture with Healthy Community Coalition.
- Participate with the Fit & Fun program at school to ‘groom’ the fitness trail loop around the school.
- Develop quests or letterboxing activities to promote trail use.

Resources
- Leave No Trace Curriculum
- HikeSafe curriculum
- You ALONE in the Maine Woods manual
- www.puzzlemaker.discoveryeducation.com
- www.adventurekids.com/hiking/hikingmap.gif

Final Celebration
How will you celebrate the success of your unit and share its results with the school and community?
- Participate in the National Trails Day work day in June 2010 and work with local trails group (TRAC)
- Different hikes around our region as a celebration of our final 12 week Fit ‘n Fun Activity Series in June
- Participate in some Outdoor Sporting Heritage Day Celebration connected with the opening of a new Outdoor Sporting Heritage Museum

Models & Examples
- Students will see local maps and trail descriptions and rating scales
- Students will meet other outdoor clubs and learn what they do for activities

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?
- Since this unit can be used by any of the elementary teachers, I will ask for formal feedback on what worked with their students and what did not work.
- Since I work with fifth graders, I may engage them in ‘test driving’ the activities and evaluating them.

Student Assessment
How will you assess student learning? How will you know if they have met the goals for the established outcomes?
- Before-during-after reflections
- Discussions
- Informal assessment – watching students learn to apply strategies and skills in outdoors related to hiking and leadership/followership
- Planning and Preparation

Project Name: Rangeley Trail to Every Classroom
Teacher(s): Nini Christensen
Grade Level: K-5

Student Role (Youth Voice)
How will you guide your students to express ideas, be involved in project decisions, and evaluate outcomes?
- Give students opportunities to develop treasure hunts (quests) while skiing at Rangeley Lakes Trails Center
- Students develop and plan food and ways of cooking for an invitational moonlight ski or snowshoe

A Trail to Place-Based Service-Learning Curriculum

Connecting Youth & Communities
Along the Appalachian Trail

Start Here!
Appalachian Trail Activity Book

As discussed in Richard Louv’s book *Last Child in the Woods*, it is essential to our children’s future that we expose them directly to nature as we race to curb childhood obesity, depression, and attention disorders. Furthermore, in an area, such as Rangeley so rich and famous for its natural resources, it is imperative that we help our children appreciate what we have here in our own backyards. Following are samples of activities that begin to develop an awareness of some of the trails in our area which could be available for outside experiences as well as activities relating to flora, fauna and experiences one might have on the trail. There are literary connections to books available here at our school library, as well as the Rangeley Public Library. Some of these activities have a K – 2 focus, while others would be more appropriate for grades 3 – 5.
How Many Hikers?

There are many more people who start hiking the Appalachian Trail than finish it in one year. Of those, 65% begin in Springer Mountain in Georgia and finish on Mt. Katahdin in Maine. They are called **North bounders**. Ten percent of thru hikers begin on Katahdin and head south to Springer. What do you think they are called?  
______________________________  (A thru hiker is a person who walks the trail continuously over a period of weeks and months carrying his shelter, food and clothing on his back.)

There are also a small percentage of hikers that hike part way from north or south and then for reasons such as weather, or family commitments or health they ‘**flip-flop**’ from one end of the trail to the other. **Flip-floppers** make up approximately 5% of the 2,000 milers.

To finish out our pie graph, there is a large group of hikers who don’t complete the trail in one year. They are called **section hikers** because they hike a section of the trail and at another year, they hike a new section until they have finished all sections of the trail. They represent 20% of the 2,000 milers.

Below is a pie graph. Divide and label the different hikers who travel **north, south, flip-flop, and sectional.** What does your pie graph add up to?

Go to [www.appalachiantrail.org](http://www.appalachiantrail.org) and look for statistics on recent years.
Henry

Some exposure to Henry David Thoreau for younger readers is possible with *Into the Deep Forest with Henry David Thoreau*, by Jim Murphy. It is a beautifully illustrated book about Thoreau which uses Thoreau’s own journal entries. His work continues to inspire people and it is significant that he took three trips into the wilderness of Maine. He speaks of his opinion of moose hunting, as well as his reaction to signs advertising clothing nailed to a tree.

For the younger naturalists, D.B Johnson has a wonderful series about a bear named Henry who does things that parallel some of Thoreau's adventures. Both *Henry Climbs a Mountain* and *Henry Hikes to Fitchburg* are available at the Rangeley Public Library (JPF JOH).
Henry David Thoreau

Jim Murphy’s book *Into the Deep Forest* introduces the young reader to this American writer and naturalist. Murphy describes Thoreau as a great record keeper who kept a journal from the time of his college career at Harvard to the time of his death in 1962. Perhaps we should thank Henry for his educational innovation of taking students on “field trips” to study plants and animals near the school while he taught with his brother upon graduating from Harvard.

Henry claimed he ‘could not preserve his health and spirits unless he spent four hours a day sauntering through the woods and over the hills and fields.’ How far we’ve come in our thoughts about the world and how interesting to consider this perspective as we consider Louv’s ‘nature deficit disorder.’

This is a good time to explore the alternative perspective that Henry the Bear offers in D.B. Johnson’s books *Henry Hikes to Fitchburg* and *Henry Climbs a Mountain*. Whether just a fun story for younger elementary or a chance to consider Thoreau’s influential *Civil Disobedience* writing by talking about his spending a night in jail because of his failure to pay taxes which he didn’t support or our government’s allowing slaves to be bought and sold.

**Activity:** Make a simple nature journal and make time in your day each day to go outside and let the students simply observe nature. Encourage them to sit silently and to allow nature to reveal herself in quiet ways.
Building a fire to fuel your body

**Carbohydrates (Tinder)**

Carbohydrates are quick burning fuels like birch bark or paper. They are foods for fast energy, typically used within two hours of consumption. Approximately 40 – 50% of daily calories should be in the form of carbohydrates and intake should be spread throughout the day to sustain energy levels. (Best source of energy when exercising)

**Examples:**

Cereals, grains, breads and baking mixes, noodles, macaroni, rice and fruits (fresh, dried, or juice)

**Proteins (Kindling)**

The tinder MUST be supplemented with medium –sized split wood (proteins). It takes longer to catch, but once going, it burns steadily, with high heat output. Protein is like the teepee, which provides the support and structure for the campfire. Proteins build and maintain muscle and are essential to the body. 30-40% of daily calories should come from protein.

**Examples:**

Meats, dairy (milk, eggs, cheese), nuts, beans, legumes

**Fats (Logs)**

They are very tough to ignite, but once they do, they will burn for a long, long time. Fats supply the greatest number of calories for weight but burn slowly, typically 6-8 hours. About 20% of the daily calorie count should come from fats.

**Examples:**

Bacon, oil, margarine, butter, most nuts have some oils
LOST!

Students will learn about different kinds of fear related to hiking and being in the woods and how to overcome it. Discussion can lead to what to do if lost in the woods. Read the book *The Climb* by Carol Carrick. (available at the Rangeley Public Library JPF CAR).

Supplement with the book *Lost in the Woods* by Colleen Politano. It tells the hypothetical story of a boy who gets lost and includes the perspective of the searchers. Included in the back of the book are some activities to help illustrate the importance of wearing a hat, insulating yourself from the ground, staying put and finally ways for parents to help prepare a child. This book is written by a teacher, in response to a kindergartener who got lost for two-and-a-half days and died sometime after the rescue.

Talk to the local game warden and ask for copies of the small orange book *Lost in the Maine Woods* to distribute to children in grades 2 and up.

Brainstorm some of the items the students would bring along on a hike. Discuss the 10 Essentials and the importance of being prepared.

Read the book aloud *Lost on a Mountain in Maine* by Donn Fendler. Discuss his mistakes and how that impacted his journey.
Orient

Read the book *Orient Hero Dog Guide of the Appalachian Trail* by Tom McMahon (available from Rangeley Public Library JP 636.7 McM) to your students.

The opening page suggests an activity where students are blindfolded and “guided” by another student to understand what it feels like to be blind. Talk with your students about physical handicaps and how dogs, or machines help people so they can function in the world. Help them to understand how Seeing Eye dogs or other helping dogs are raised by volunteers for their first year. They go to school to learn how to guide the handicapped person. Talk about what qualities a trainer might look for in a dog when considering them for the program.

1. Have your students draw a picture of a guide dog and what it might help a person with.

2. For readers in K-2, write a sight word on a paper for each student, which they are working on. Have them glue dried peas on the word. Once the glue is dried, have the students exchange words with one another and using blindfolds, have them feel the Braille word. Explain that this is one way blind people read.

3. Bill Irwin hiked the Appalachian Trail for 258 days and covered over 2,000 miles. Round 258 to the nearest 50 and estimate about how many miles/day Bill hiked.

4. How many months did Bill hike?

Maine Learning Results
The Birdwatchers

Read the book *The Birdwatchers* by Simon James to your students. (Available at the Rangeley Public Library JPF Jam) This is a humorous look at bird watching that combines some of the habits of birdwatchers as well as the frustrations of being a new birdwatcher and not seeing anything. It exposes children to what a bird blind looks like and can be a kickoff for a field trip to Orgonon (Wilhelm Reich Museum) to see their bird blind. It also mixes the humor and imagination that can stimulate creativity for story writing.

Bird watching is something that can become an obsession. There are people who have something called a *life list* in which they try to check off as many different species of birds as they can. This can involve traveling to many different areas of the country or the world or simply to the different habitats in your area.

Hiking the Appalachian Trail offers lots of alone time in nature. Whether you hike for a few hours, days or months, there will be occasion for encounters with birds. The use of field guides and binoculars can enhance your success in spotting different species. Learning their calls is another way to identify their calls.

**Bird Call Game**

**Chickadee** chick a dee dee

**Blue Jay** jay jay

**White Throated Sparrow** Old Sam Peabody Peabody

**Barred Owl** Who cooks for you Who cooks for you all

**White Breasted Nuthatch** Yank Yank Yank

**Catbird** Mew Mew

**Yellow Warbler** Sweet Sweet I’m so Sweet

**Yellowthroat** Wichity Wichity

**Eastern Wood Peewee** Pee-oo-wee Pee-oo

**Chestnut Sided Warbler** Pleased Pleased Pleased to Meet Ya
Each child is given the name of a bird and its call. There should be two children to each kind of bird. No one is allowed to tell another which animal he is. At the signal, each child makes the noise of the bird that s/he has been given and they must try to find their like bird.
White Tailed Deer

One of the most important things to remember about the Appalachian Trail in the fall is that during the month of November, it is time to don blaze orange when you hike in case you encounter a hunter. During the month of November, and the first two weeks in December, white tailed deer are hunted in Maine (Sunday being exempt). Hunting is allowed near the trail and it is important that you are informed of that possibility so you can share the woods with other recreationalists.

White Tailed Deer are the smallest members of the Cervidae family. Their cousin is the mighty moose. They are a ruminant animal, which means that they have four stomachs that digest what they’ve eaten (similar to a cow). Deer eat grasses, leaves, stems, shoots, berries, nuts and seeds. In winter, deer eat branch tips, small twigs, soft bark, and evergreen needles. They are especially fond of cedar.

A female deer is called a doe, a male deer is called a buck, and a baby deer is called a fawn. Deer are generally reddish brown in the summer and more grayish in the winter. They have cloven hooves that leave heart-shaped hoof prints with the tip of the heart pointing in the direction of travel. They have special eyesight with allows for both binocular vision (3D) forward and monocular vision (2D) to the sides. They are colorblind. Bucks grow antlers every year and lose them in the late fall/winter. They can run approximately 35 mph and leap 8 ft high.
Black Bears

Black bears are the smallest of the three North American species. Can you name the three types of bears that live in North America? (Grizzly/Brown bear, Polar Bear and Black Bear). Black bears live in forests and are opportunists in their eating habits. They eat a variety of plant matter including early greening grasses, clover, buds, fruit and berries, beechnuts, acorns and hazelnuts, insects like ants and bees, sometimes mammals, birds, and even young deer and moose.

Have you ever heard of the terms listed below?

Carnivore-
Herbivore-
Omnivore-

If you do not know what the above terms mean, look them up in a dictionary.

Tell what you know of these terms and decide which category a black bear would be in. What category would you be in? Can you name an animal for each category?

Black bears are the only bear that lives in the eastern U.S. Adult males weigh from 250 lbs to 600 lbs and stand 5 to 6 ft tall, and females weigh 100 to 400 lbs and are 4 to 5 ft in length. Black bears den up in late fall and stay there for 5 to 6 months in Maine. During this time, they don’t eat, drink, urinate or defecate. A female black bear gives birth to 1 to 4 cubs in January while she is in her den. The cubs weigh 12 ounces at birth. When they are born, the cubs have blue eyes, which turn brown during their first summer.

Black bears are solitary animals and it is unusual to see one in the wild. That doesn’t mean you won’t see one, but it is rare. Practice Leave No Trace principals like straining your dishwater if camping and packing the food waste out. Remember to hang your food in a food bag if you are in an area that has black bears. When camping, remember not to bring smelly foods or sweet treats into your tent as the smell may attract bears. Even toothpaste may attract the bear.
**Toasting Marshmallows**

**Camping Poems**

Here is an opportunity to create a book of poetry about hiking. Using *Toasting Marshmallows* by Kristine O’Connell George (available at the Rangeley Public Library JO 811 Geo) as a model, share these poems with your class. See how familiar they are to things like toasting marshmallows, or sleeping in a tent.

Take them on a hike around the school grounds or a nearby trail. Have them write poems about their experiences and observations.

**Haiku** poems are rich, small whisperings of their experiences. Remember that they are three lines, the first line has 5 syllables, the second has 7 syllables and the third has 5 syllables.

**Count a Word Poems** start with one word on the first line, then two words on the second, three on the third and so on. They can also be written one word, two words, three words, four words, three words, two words, one word. Use your imagination to make the poem structure you want.

**Alliteration** Have students write sentences using alliteration to enhance what they are writing about.
Peanut Butter Balls

1 cup peanut butter
1 cup honey
1 cup milk powder
2 cups Rice Krispies
1 cup chocolate chips

**Topping**
Graham cracker crumbs *or*
1 cup coconut

In a large bowl, mix peanut butter and milk powder and honey. Add cereal and chocolate chips. Roll in small balls. Roll in the mixture of your choice- graham crackers or coconut.

**List the ingredients that are highest in carbohydrates, proteins, and fats.**

<table>
<thead>
<tr>
<th>Carbohydrates</th>
<th>Proteins</th>
<th>Fats</th>
</tr>
</thead>
</table>

Bibliography


Video *Leave No Trace in Maine*, 10-15 minutes.


*Leave No Trace Center for Outdoor Ethics*, [www.LNT.org](http://www.LNT.org)

Video *Hiking the Appalachian Trail* Sierra Club Centennial Expedition, FilmComm, Inc., 62 minutes


http://www.yorkcenterforwildlife.org/FA-porcupine.php


