Myself,
My Community,
My World

An Interdisciplinary Thematic Unit

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Table of Contents

Mission and Introduction: 3

Initiating Activity: 6

Culminating Activity: 9

Social Studies: 11

Science: 18

English/Language Arts: 25

Math: 33

Adventure: 44

Integrated Arts: 49

School Mission and Purpose

The mission of our school is to cultivate within each member of a diverse student body, an intense commitment to self and community through experiential learning. We set high standards for academic and personal success, and hope to give students the knowledge, skills, and attitudes to achieve those standards.

At our school, we help students become competent and resourceful learners as they take a responsibility for learning by engaging in small classes, advisor-advisee programs, and a study skills development program. Teachers and administrators hold students to high expectations for promotion to each grade, and students learn how to meet measurable and relevant goals. Through our service program, students and parents work to serve the larger community, and develop an appreciation for the power they have to make a difference. Our goals are to create an integrated curriculum that will encourage students to challenge themselves during these important middle school years of growth and excitement.

We are a community of learners with:

- Small classes with heterogeneous groupings
- Advisor programs for students and staff
- Team teaching
- Student and family volunteer requirements
- Rigorous academic standards
- School supported social events
- Outstanding faculty
- Experiential learning
- Standards-based integrated curriculum
- Inclusive classrooms that meet the needs of each and every student
- A variety of assessments for students including portfolios and goal-setting

Introduction:

Our eight grade team will be focused on inquiring into how we can make connections between ourselves, our community, and our world. Through the activities in this three-week unit, students will learn and recognize how writers, artists, and explorers

of the past have enriched their lives through their experiences with nature. By looking inward, students will develop the tools to connect their personal lives to their communities and the greater world around them. Students will investigate the interactions between humans and nature and read and write about them in Social Studies and English. In Science and Math they will investigate the relationships and connections between populations and their larger community, and focus on the presence of geometry in their lives and in the natural world. Through ideas presented in adventure classes, students will have an opportunity to practice conservation by cleaning trails and building new ones. This unit will culminate in a hiking trip at the end of October.

As students begin to make connections between themselves and the natural world around them, it is our goal that they will develop a direct and respectful relationship with nature. During the team-building exercises they will engage in with their peers, students will make self-discoveries about their own self-discipline, perseverance, and imagination. They will be responsible for directing their own personal and collective learning during the hiking trip, when the students must use their group skills to navigate through problems and achieve success. As important as teamwork, is solitude and reflection. Students will have time throughout the unit to make their own connections and create their own ideas through field work and writing activities. By building their own personal skills, and challenging and supporting each other during the three weeks, the students will develop reciprocal trust and comfort. They will discover responsibility in situations that offer adventure and the unexpected. They will make connections between their own lives and communities and the natural world around them.

Initiating Activity:

The purpose of this engaging activity is to spark the excitement of the students, inform them of the theme and focus for the unit, and begin their journey towards making connections between themselves, their community, and their world.

The engaging activity will begin in the gym where the students will be informed about the culminating activity, a hiking trip on a part of the Appalachian Trail in Maine. Teachers will show them photos of this area and students will make guesses about its location before they are told. They will learn about how the next three weeks will prepare them for the trip in their core classes as well as the related arts. Students will be encouraged to connect their personal experiences and their lives to the larger experiences of writers, artists, and adventurers who have explored the natural world before them. They will learn about the expectations for the trip and how they will create a contract with their peers to determine how they will meet these expectations.

After the entire group meets, the students will break off and attend a few different stations, by team. At one station students will play the tarp game. Students must cooperate with the members of their team to complete the task of turning over the tarp they are standing on without anyone stepping off. They will work together and discover that some strategies work better than others. Students will share and reflect after the activity about what they could have done to cooperate at a higher level or in different ways that may have made them more successful. They will also play a Zen counting game, in small groups of 7 or so. During this activity students sit in a circle and see how high they can count with only one person saying each number. If two people say a number at the same time, they must start over at zero. Students will find that the task requires a lot of focus and concentration. Afterwards, a teacher will lead a conversation about how students used nonverbal communication and cues during the activity. At another station they will engage in the “Tent Olympics” and will have a chance to attempt setting up tents and shelters together using their prior knowledge and a list of

instructions prepared by the adventure teacher. This will be a chance for students to work together with their peers and observe the strategies that make teams successful. They will also become aware that not all of the students are experts at setting up tents, and that they will need to keep this in mind during the hiking trip. At the last station, students will work in small groups to play an "Island Survival Game." They will be told that their ability to survive will be measured in five categories: water, food, shelter, warmth, and health. Students will encounter a variety of challenges that they must negotiate through with their teammates. They will need to find ways to escape from the island, which is the ultimate goal of the exercise. During Language Arts later in the day, students will debrief and reflect on what they learned from their experiences.

Strategy Worksheets for Island Survival Activity

Strategy	**Resource Points (gains and losses)**
Explore island quickly	+1 water, +1 shelter, +1 food (first turn only)
Explore island thoroughly	+5 water (spring found), +3 food, +3 shelter, -1 health (can do only once, on first or second turn)
Build a reed or stick shelter	+2 shelter (must specify where shelter is located)
Build a log or stone shelter	+3 shelter (must specify where shelter is located)
Build a water barrel	+2 water (if rains in future round)
Search for wild vegetables or fruit	+2 food (one time only for each)
Search for water	+3 water (one time only)
Search for lumber/coconut trees	+2 food, +1 water, +2 shelter (one time only)
Maintain a fire at night	-1 shelter, +2 escape (night only), +1 warmth
Make a rod or net to catch fish	+3 food
Make a spear to catch fish	+2 food
Move a shelter to another area of the island	no change in points

Build a raft or boat	-3 shelter, + 3 escape (water only)
Float on a log	+1 escape
Use a mirror to reflect sunlight	+1 escape (day only)
Make a message on the beach with rocks	+1 escape (day only)
Signal using a flashlight	+1 escape (night only)
Send up a flare	+2 escape
Use binoculars	+1 escape
Maintain a lookout	+2 escape
Toss a bottle with a note in it into the ocean	+2 escape, two rounds later

Initial Items	Resource Points
Each food item	+1 food
Fishing rod or other device to catch/find food	+3 food
Packet of crop seeds	+3 food in Round 3
Each water/drink container	+1 water
Each tool useful in constructing a shelter	+2 shelter
Each blanket or piece of extra clothing	+1 warmth
Matches or sleeping bag	+2 warmth
Tent	+2 warmth, +2 shelter
Bottle of vitamins or medicine	+1 health
First aid kit	+3 health
Binoculars	+1 escape
Mirror	+1 escape (daytime only)
Survival manual	+1 for each resource

Culminating Activity

This project will be the culminating activity for the three week unit on “myself, my community, my world.” The students will be expected to begin work on the culminating activity during the unit and will be briefed as such at the beginning of the unit, on the first

introductory day. Each teacher will explain the culminating activity and what will be expected from the students in that particular course of study. The culminating activity will include elements of core courses as well as unified arts.

Language Arts/Social Studies:

The students will be asked to write a paper reflecting on their trip. This paper could be written in the style of a particular author we have studied, or they can develop their own style. Ideally, the paper will contain elements that the students particularly admire or wish to emulate, from Hemingway, Emerson, or Thoreau. In order to include a social studies component in their final assessment, their paper will also be required to include aspects that will demonstrate the context of the time, such as social movements, political movements, or technological developments. This reflective paper will draw together the elements that most stood out for the students during the unit and will allow them to utilize the styles they are most comfortable with and amenable to.

Unified Arts:

The unified arts component of the culminating activity will again be a theme that is woven throughout the unit. During class, the students will be told about their options for the final, culminating project, and will have time throughout the unit to decide on their

second part; the students will choose an activity that they prefer; either photography, drawing, dance, theater, or song, and use this medium to demonstrate their outdoor experience. We anticipate many beautiful drawings and photographs from the students as well as original pieces of theater or dance. This aspect will allow students who express themselves in multiple intelligences to best showcase their knowledge.

Presentations:

Due to the tremendous amount of anticipated work and passion that our students will display, we will have a final component of the culminating activity, and that will be the presentation of their work. After the unit has been completed, the students will perform their unified arts pieces, show a display of their artwork, and do readings from their writings at an open house for parents and the community. The presentation of the work will generate reflection by the students, parents and teachers, and will provide a tangible method of synthesis for the students regarding their unit experience. This will provide closure to the unit of study and also provide an opportunity for the students to share what they have learned during their integrated unit.

Social Studies

This integrated unit has three themes over a three-week period of time: the first week they will be exploring inward, the second week studying their community, and the third week, their environment and the world. This unit conforms to the standards of

Massachusetts grade eight, pathways three. Pathways three consists of the study of US History I: 1763-1877. This unit will be exploring the period directly before the Civil War, beginning with Thoreau's introspection and the social movements influenced by it, and the United States' manifest destiny and the war with Mexico. They will first, as they examine inward, read Civil Disobedience and tie that in with Walden. The students will examine where Thoreau was coming from with his introspection and how this was manifested in his civil disobedience. Following on this, we will study the suffrage and abolition movements of this period of time and how they used civil disobedience to achieve their goals. The third unit, continuing from the community to the world, will look at the United States' role as a world player. This week will include a study of the Mexican War and events surrounding it, as well as dissent on the home front.

MA Standards This Unit Will Adhere To:

USI.23: Analyze the rising levels of political participation and the expansion of suffrage in antebellum America.

USI.26: Describe the causes, course, and consequences of America's Westward expansion and its growing diplomatic assertiveness. Use a map of North America to trace America's expansion to the Civil War, including the location of the Santa Fe and Oregon trails.

D. Trail of Tears

E. Annexation of Texas

F. Concept of Manifest Destiny

G. acquisition of the Oregon Territory in 1846

H. territorial acquisitions resulting from the Mexican War

USI. 29: Describe the rapid growth of slavery in the South after 1800 and analyze slave life and resistance on plantations and farms across the South, as well as the impact of the cotton gin on the economics and slavery and Southern agriculture.

USI.31: Describe the formation of the abolitionist movement, the roles of various abolitionists, and the response of Southerners and Northerners to abolitionism.

A. Frederick Douglass
B. William Lloyd Garrison
C. Sojourner Truth
D. Harriet Tubman
E. Theodore Weld

USI.33: Analyze the goals and effect of the antebellum women's suffrage movement.

A. Seneca Falls
B. Susan B. Anthony
C. Margaret Fuller
D. Lucretia Mott
E. Elizabeth Cady Stanton

USI.34: Analyze the emergence of the Transcendentalist movement through the writings of Thoreau and Emerson.

Habits of Mind:

Creating parallels with the past and today.

Connecting threads of social movements with the past and future.

Understanding how the past creates patterns that repeat itself in the future.

Working together to discover patterns and understand events.

Using primary documents for research and study purposes.

Week One:

Week One will be co-taught whenever possible with Language Arts because the students will read Thoreau's Walden and Civil Disobedience. The course of study will be on a social studies level, however, and we will examine the writing from the context of the time. Thoreau had decided to isolate himself at Walden and turn inward, inspiring a movement of transcendentalism. Students will read part of the work in class and discuss the first sentences of the work "The government is best which governs least" in small groups. Guided questions will include: do you feel that Thoreau is correct? In what ways would a larger government be better? Worse? How would that function?

For homework : Following that lesson, they will complete reading the work at home and then discuss in class how they feel it possible that this examining of conscious movement effected a community change. Further on in the week, as the discussion on the topic progresses, they will have to write about a topic of today that they would use civil disobedience to protest (like Thoreau's protest against the Mexican War.) The discussion following that would be a good way to gauge how our students feel about the political issues of today. At the end of the week, we look forward to our half-day trip to Walden that week which will combine language arts, outdoors/adventure hike, and social studies elements. Seeing the place where Thoreau wrote and experiencing its nature will be an incomparable way for the students to truly "feel" Thoreau's frame of mind. Since

Thoreau, in his forced isolation, was unable to stop from pondering the pressing issues of the day, Thoreau's solo examination of these issues provides the link to the next week's study of social movements.

Materials needed for this week: copies of "Civil Disobedience" (they will have the combined Walden and Civil Disobedience book; permission slip for the Walden trip, slides of photos of Walden during Thoreau's time.

Week Two:

In week two we will study the burgeoning social movements of this era. We will begin by listening to Negro spirituals in class and reading poetry on the slave experience ("We Raise de Wheat" by Frederick Douglass and "The Slave Auction" by Frances Harper) to examine how the slaves were living at the time. Then we will begin talking about the abolitionists, who they were, and what they were working for and by what methods. The students will engage in a role play where they will play different actors in the slavery debate and then speak from their characters point of view (homework will be preparation for the role play at home; they will do in depth reading to discover the personal story behind their character.) In that way, the students will explore the different motivations behind the slavery argument. Specific in class readings will be Angelina Grimke, "An Appeal to the Christian Women of the South", Frederick Douglass "What To the Slave is the Fourth of July?" and "Narrative on the Life of Frederick Douglass", and John Brown "Last Speech to the Jury". The students will then have a group compare and contrast discussion where we will uncover the similarities and differences between these three abolitionists and how they got their message out to the masses. Further, we will cover the

women's suffrage movement and the Seneca Falls convention and the connection between the abolition movement and the suffrage movement. (The primary topics of this week are abolition and suffrage due to their connection with the previous and following weeks and the unit as a whole, however we will also briefly discuss the removal of Native Americans from their land and how that ties into the ecological awareness of the nation along with Walden. The reading for that will be by Chief Seattle "My People Are Ebbing Away Like a Fast Receding Tide.") The students will primarily read writings by the suffragettes to gain a better understanding of what the women were asking for and what their situation was at the time of the suffrage movement. Readings will be "Woman in the Nineteenth Century" by Margaret Fuller, "Ain't I A Woman?" by Sojourner Truth, and "The Rights of Women" by Frederick Douglass. Homework for this week- due on the Friday- will be a paper discussing the similarities and differences between the two movements, and also predictions for the future of BOTH movements: where do you think they are going in the future and who will the major players be? Names are not necessary, but a description of class and background to get a sense of the characteristics of leaders of movements, and perhaps a projection as to where the civil rights movements were headed in terms of tactics and desires.

Materials needed for this week: copies of the writings.

Week Three:

In week three we will study the United States' involvement with the outside world during this period of time. Along with the rising turmoil inside the boundaries of the country, the US was extending itself as a world power. The students will examine the concept of

Manifest Destiny and discuss how this affected the country and the moral questions surrounding the expansion. In groups, they will explore the reasons for expansion and it will be extremely important that they make the connection between expansion and the slave economy. We will examine the causes and conflicts surrounding the Mexican War and the US's assertion of dominance in the Western hemisphere and discuss how the students think this will affect our country's relationship with Central and South America. The students will look at the war on the front lines, and also the home front-including Thoreau's refusal to pay taxes to support the war. The students will bring back their work from the first week and share with the class the issues of today that they feel would inspire them to civil disobedience. Part of this mini unit will also involve the study of political cartoons and how they showed dissent or support during the war. This lesson will be adapted from the Library of Congress's "It's No Laughing Matter: Analyzing Political Cartoons" lesson using political cartoons from the era we are studying. The students will study the political cartoons as a means of dissent. Homework for the week will include a brief reflection on the war and what they think it means for the future of Mexico-US relations and to bring in their political cartoon from art class to be analyzed by their social studies class.

Materials needed: Maps of the US showing the changing boundaries, A People's History of the United States as text, maps of the Mexican American War and its battles, and political cartoons from the time from the Library of Congress (http://memory.loc.gov/pp/appquery.html.)

Resources:

Thoreau, Henry David. 1983. Walden and Civil Disobedience. *Penguin Classics*. New York.

Randall, Dudley (editor). 1971. The Black Poets. *Bantam Books*. New York, etc.

McCarthy, Timothy Patrick and McMillian, John (editors). 2003. The Radical Reader, A Documentary History of the American Radical Tradition. *New Press.* New York, London.

(For use as text and reference: Zinn, Howard. 2003. A People's History of the United States. *Harper Perennial.* New York.)

http://memory.loc.gov/learn/features/political_cartoon/

Science

This unit will encompass the components of an ecosystem. Starting with the basis of all life on Earth, students will examine the survival needs of individual organisms. All

living things depend on the conditions of their environment. Students will study the relationships between organisms, populations and their larger community while focusing on limits. Changes can be hard on organisms and such knowledge of this is important since humans can and do change environments. To do so without awareness of possible consequences can lead to disasters. Students will look through the eyes of scientists as they count turtles, manage the school's forested lands and analyze the costs and benefits associated with land conservation. In preparation for the culminating activity, students will have learned what organisms inhabit the land along the Appalachian Trail, how energy flows through the ecosystem, why the land is conserved and who manages and makes final decisions regarding the land.

Science Process Skills Learned:

- Observing
- Predicting
- Classifying
- Communicating
- Inferring
- Measuring
- Interpreting Data
- Graphing

Science Habits of Mind Learned:

- Be open minded and respectful of another's point of view
- Be curious, careful and accurate in observations
- Keep detailed and thorough records of observations
- Don't jump to conclusions based on only 1 observation
- Compare and contrast
- Use reliable sources for evidence

MA Curriculum Frameworks addressed:

Life Science Learning Standards:

5. Describe the hierarchal organization of organisms.

12. Relate the extinction of species to a mismatch of adaptation and the environment.
13. Give examples of ways in which organisms interact and have different functions within an ecosystem that enables the ecosystem to survive.
14. Explain the roles and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.

Week 1: *Organisms and Populations*

To begin the unit, we will start by listing our basic needs as humans. The discussion will become broader to generalize what all organisms need to survive. Students will brainstorm in small groups about al the factors that influence the survival of an organism. As a class, we will discuss the lists and introduce terms such as habitat, niche, abiotic and biotic factors. The students will break up in their groups again and receive photographs of natural settings in which they must label and classify everything under abiotic, biotic and also put the animals into correct levels of hierarchy organization.

The study of populations will begin with a brief discussion and reading from the textbook about what causes a population to change in size. Terms that will be introduced included carrying capacity, immigration, birth rate and death rate.

We will look at ways in which ecologists determine population size with an activity, Counting Turtles. In groups of 3 students will determine how the mark and recapture method can help ecologists monitor the size of a population. Students are given a data table showing the results from the first three years of a study to determine the number of snapping turtles in a pond. A box will also be given to each group representing the pod with some marked turtles. The group will randomly capture one turtle and repeat 9 times. All data will be recorded on the group data sheet. Students will estimate the total

population of turtles in one year by multiplying the number marked by number captured and dividing by number recaptured with marks. Each group will graph their results and predict future populations. As a group, students must suggest possible causes for changes in the turtle population. In conclusion, students will explain why the mark and recapture tool is a useful tool for ecologists.

To end the weekly topic, we will look at limiting factors and their roles in determining population size. Students will complete a worksheet and graph their data about unlimited population growth. The worksheet will focus on bacteria, which under ideal conditions can divide about every 30 minutes – so the population doubles. The students must assume the bacteria has unlimited resources and are not killed by other organisms. With unlimited population growth, the students will investigate the bacteria population using graphs and compare their results to what happens in real life. A class discussion will connect unlimited population growth to the survival needs of organisms.

Week 2: *Community*

The week will begin week 2 with an introduction to energy flow within an ecosystem. The discussion will require the students to apply previous knowledge on the roles of organisms. We will look at different organisms found in our backyards and ask what energy role does that organism play? Students will be review terms such as producer, consumer, herbivore, carnivore, omnivore and decomposer. As homework, students will be asked to record everything they ate for dinner.

The following class will be spent making a class list of food consumed and discussing the origin of each and the process by which it gets on the dinner plate. The energy pyramid will be introduced as a new term and students will use their own food examples to create energy pyramids to review. Once students grasp the roles of organisms they are familiar with, we will watch a National Geographic video and observe animal interactions in different ecosystems. Students will be asked to analyze these organisms.

- What makes predators successful?
- What are examples of defense strategies?

Students will research 1 organism that may be found along the Appalachian Trail and report to the class how this organism adapts to survive in the ecosystem.

The weekly activity will be Weaving a Food Web, which will act as a review. Each student is assigned a role. Using yarn or string, the students are asked to connect and link organisms together to make a food web based on what they have learned. Slowly, the teacher eliminates an organism and the students must reconnect to create the new food web. Students learn the hierarchy structure of the flow of energy. For discussion, students are asked how the removal of just one organism can affect the entire food web.

- Would it matter which organism was removed?
- What might remove an organism in our ecosystem?

These questions will guide a student discussion about the roles organisms play in the food web but also how humans play an intricate role.

Week 3: *Environmental Issues*

The final week of the unit will begin with a discussion of what environmental issues are most prominent in the media currently. Students will be asked to bring in examples of these articles either from the newspaper, Internet or magazines and critique them. Students will learn how to distinguish fact from opinion and how important evidence is in supporting a theory. We will then focus on how these issues are and possibly could affect the Appalachian Trail. The use of the forests, as a resource will be looked at in depth through the uncovering of terms such as renewable, nonrenewable resources and sustainable development. Students will read from their textbooks about managing forests as a renewable resource through methods of cutting and logging.

Through a Sustainable Forestry activity students will understand how tree harvesting changes forest structure. The intent of this exercise is to understand that cutting trees changes things in a forest. Why do we cut trees? Discuss some of the products we use from the forest that necessitate cutting trees and note that we all use wood and forest products and that people will have to cut some trees to meet these needs. How do we decide which ones get cut? In groups of 4, students will rope off a section of forest in the schoolyard with colored flagging. Ideally, the area will contain trees in the smaller diameter-size classes, woody and herbaceous plants as well as tree regeneration.

Students will select trees for harvesting based on species and stem diameter using a specific ribbon color for each treatment. The intent is to show how different cutting decisions change forest species composition, structure, and potential to provide products and values. After the students have "carried out" the treatments, have them discuss and describe what would happen if the forest were harvested by these methods.

- Is there a species removed or severely reduced by one of the treatments?
- What species are left?
- How did the various "cuts" affect wildlife?
- Will trees capable of producing seeds remain?
- What has happened to the average tree diameter remaining?

To review, students will pull topics from previous weeks through determining the importance of land conservation. Students will learn that land conservation and protection is one of the many tools that conservation organizations and government agencies use to help keep natural habitat from being destroyed. The different types of conservation and who is actually legally responsible for the land will be studied through the Nature Conservancy website. Students will be given forest data and asked to work in small groups to prepare their own cost benefit analysis to learn more about the difficult decisions made each day over land and ecosystem protection. Students will need to apply what they learned from the previous Sustainable Forest activity in order to complete this assignment. As review, students will be asked to summarize how these decisions affect the greater ecosystem, specifically relationships between organisms native to the Appalachian Trail.

Resources:

- Prentice Hall Life Science (Science Explorer Series). Pearson Education, 2005.
- Temperate Forests (Biomes of the World series) By Michael Allaby. Grolier Educational, 1999.
- Natural Conservancy Website: http://lastgreatplaces.org/berkshire/issues/index.html
- National Geographic movies

English/Language Arts

Rationale:

This three week unit is designed to engage students in making connections between classic themes used in literature, their lives, and the natural world in which they

live. During the unit, students will use their background knowledge of memories, experiences, and facts to make connections to the characters and places they read about, as well as the major themes that relate to the texts. They will learn how to connect the text to themselves, their world, and to other pieces of text. In particular they will observe how several authors express connections between the main character in a piece and his or her surrounding environments. Students will learn how authors incorporate into their literature the themes of person vs. self, person vs. person, and person vs. the natural world. By the end of the unit they will see how many writers are influenced deeply by the natural world around them.

As the students learn to make connections they will have opportunities to express themselves through writing assignments during writer's workshop. Some examples of these activities include creating haiku poetry from an object or picture, and writing a paragraph with vivid language based on a prompt about their favorite place. During the third week of the unit, students will choose a medium by which to express their own relationship to their world. This will culminate during the final camping trip in which students will write about something in nature that they have connected with. They may model their pieces after the authors they have read (Thoreau, Hemingway, Frost), or choose their own writing style. They will perform this piece upon return from their trip before an audience of teachers, parents, and community members. This exercise will challenge students to ask questions and make personal connections to the points-of-view of the authors they read. They must search within themselves, as these authors did, to find what aspects of the natural world they are passionate about. Students will leave the

unit with a direct and responsible relationship with the natural world. They will learn to appreciate nature as they appreciate literature through active experiential learning.

Objectives:

1. Students will make personal connections to themes in literature.
2. Students will be exposed to several examples of poetry that relates to nature, and use haiku poetry to write their own piece.
3. Students will learn how to make text-to-reader connections to enrich their experiences during reader's workshop time.
4. Students will design a presentation based from a piece of writing that is inspired from nature.

Habits of Mind:

- Asking good questions:
  - During literature circles students will develop and ask each other quality questions relating to the texts.

- Thinking fluently and flexibly:
  - Students will learn to write about their relationships with nature in a fresh and unique way that distinguishes their writing and offers a personal voice.

- Forming hunches:
  - During cooperative learning time and when they write in their journals, students will respond to texts and engage questions about why the author wrote a certain way, or what they chose to include in the text. They will make guesses about how the characters feel and about the sequence of events.

- Searching for patterns:
  - Students will be introduced to literary themes and will begin to look for these themes within the literature they read.

- Using models and metaphors:
  - Students will respond in their journals to prompts that encourage them to use vivid metaphors and create images in their writing.

- Taking Risks:

    - Students will be asked to take a risk when they are asked to develop a piece of writing that shows a personal connection to nature. Because the culminating activity involves a presentation of this personal piece, not all students may be as comfortable sharing at first.

- Cooperation and Collaboration:
    - Students in the Language Arts classroom will be asked to collaborate with one another during literature circle time. This will be a dynamic cooperative learning experience that involves the participation and dedication of each and every group member.

Massachusetts Standards Addressed:

11.3-4 – Apply knowledge of the concept of that theme refers to the main idea and meaning of a selection. Analyze and evaluate similar themes across a variety of selections, distinguishing theme from topic.

15.5-6 – Identify and analyze imagery and figurative language. Identify and analyze how an author's use of words creates tone and mood.

14.5 – Identify and respond to the effects of sound, form, figurative language, and dramatic structure of poems.

3.12 – Give oral presentations to different audiences for various purposes, showing appropriate changes in delivery and using language for dramatic effect.

Week One

Central Question 1: What connections can we make between themes in literature and ourselves?

Goals:

1. Students will learn about and make text-to-self connections.
2. Students will understand the literary theme of person vs. self/inner conflict.
3. Students will respond to Hemingway's 'Old Man and the Sea' in their reader's response journals and during literature circles.
4. Students will be exposed to examples of vivid imagery in literature, and they will draft a piece of writing that includes their own examples to describe a favorite place.

Day 1:

- Students will all participate in team-building activities and adventure challenge during the first half of the day.
- During a short Language Arts period they will debrief their experiences.
- Teams will be introduced to the concept of connections. They will respond in their reader's journals to the experiences they had during the team-building activities and they will relate past experiences and memories to these activities. They will reflect on how the activities of the day were beneficial and how they could be improved on.
- In groups, students share their reactions and draft a plan of steps that could help individuals collaborate more efficiently during activities that require the involvement of every team member. Teacher facilitates the development of a whole-class list of improvements that could be made (Ex. Incorporating the rules of the class contract into activities outside the classroom, Appointing a leader for certain types of activities)
- HW: Finish up to chapter 3 in 'Old Man and the Sea' (students have started reading the wknd before)

Day 2:

- Discussion of themes in 'Old Man' – Minilesson on how an author can weave a theme throughout a novel. Using the theme of person vs. self, students make connections between how Santiago has an extreme desire for what eventually serves as his undoing.
- During writer's workshop students will write about a time when they felt drawn to something that eventually hurt them. This text-to-self connection will help students take on the perspective of Santiago and compare their own feelings to his. Students may also respond to a prompt about Santiago's inner conflict and introspection while at sea.
- Time for reading
- HW: Read 'Old Man' and finish literature circle role sheets

Day 3:

- Students share their reactions and questions to the reading in literature circles.
- Minilesson on vivid imagery with an excerpt from 'Hatchet' which the students have recently read. Read aloud the description of Brian's plane crash into the Canadian wilderness. Ask the students what they see, feel, hear, taste, and smell after reading the selection. Show students on the overhead how the author's word choice creates sensory images. Do an exercise on creating descriptions with vivid imagery: Students work as individuals to develop lists that describe a picture taken in nature. Then, in pairs, students read their lists and one student creates a sketch of an image that comes to mind after their partner reads the list of words.
- HW: Read and draft a 3 paragraph piece using words that create vivid imagery to describe a favorite place.

Day 4:

- Students begin class by responding to a prompt about 'Old Man' in their journals. They will choose a selection from the text which they either like/or dislike because of the author's use of word choice. They should describe why that particular piece of the text makes them feel the way it does, and how they might change it, if possible.
- Students are introduced to the travel brochure assignment. They will create a brochure that advertises the Mahoosuc Notch, the site of their hike during the culminating activity. They will use their knowledge of persuasive writing to create a brochure that would attract a tourist to the destination. They must use their content knowledge from Social Studies, Science, and Math to create the brochures. The brochures must advertise where the Mahoosuc Notch is exactly, and what there is to do there. They must include pictures and elements of conservation and carry-in/carry-out procedures that they are learning in adventure and science. The brochures will be due the following week on Thurs. Students will give a brief presentation at this time. During workshop time, students collect their materials for the brochures and brainstorm a list of things they might include in them.

Day 5:

- Students share their reactions and questions to the reading in literature circles. They will also have time to work on travel journals and read.

Week 2

Central Questions: What connections can we make between literary texts? Which personal connections can we make to the theme of person vs. person/community?

Day 1:

- Students respond to a prompt in their reader's journals. How do the people that live in Santiago's village respond to him? What is his role as fisherman? How do the other fishermen view him?
- Minilesson on text-to-text connections: Explain how these connections occur when readers think about other written texts such as movies, songs, or stories in order to further their understanding of the reading. Demonstrate how the text of 'Old Man' reminds me of some haiku poetry, because of its straightforward prose and language. Show the poem 'Worm' by Basho. During a Think Pair Share: students brainstorm connections they can make between the book and other texts, movies, songs, or stories. If there is any time left, they will have an opportunity to read.

Day 2:

- Students write in journals for 5-10 min in response to a prompt.
- Minilesson on Haiku and Haiku exercise. Students have been introduced to haiku in a previous lesson so they are familiar with the poetry. Students visit several 'haiku' stations after I have modeled them. Station 1: Renga; Students will create a long haiku based off of the pictures they have seen and the descriptions they have read about the Mahoosuc Notch in adventure class. Station 2: Students use watercolors or charcoal to paint or sketch a picture that relates to their Renga haiku. Station 3: Students choose from a variety of objects which have been found in nature in order to write a haiku for each season. These haiku are contained in a small booklet. The Renga Haiku list and the pictures will be displayed in the classroom
  HW: Read 'Old Man'

Day 3:

- Students begin with literature circles based on their 'Old Man' reading.
- Students spend second half of the period working on their travel journals. While students are working, teacher conducts one-on-one conferences to respond to their journals and discuss their progress on the brochures.

Day 4:

- Minilesson on descriptive adjectives and figurative language: Have students brainstorm as a whole class better alternatives to words such as big, good, and nice.
- Students are given time to revisit their Haiku poems and revise. They will each choose a poem to read at some point during the hiking trip when they will do an impromptu poetry reading session (which they have done before in class). Students read more Haiku poetry and find connections to other texts. In groups of four, students analyze a group of poems. They find connections among the poems or between the poems and something else and report their connections to the class.

Day 5:

- Today there will be a shorter Language Arts period, as the students will spend the second half of the day visiting Walden. In class they will brainstorm lists of what solitude and reflection are, and what they know about Walden and Thoreau from their Social Studies classes.
- Class discussion on 'Old Man': Discuss the relationships between Santiago and different characters in the book: Manolin, the fishermen, the fish. Discuss how Santiago feels a connection to Joe DiMaggio. Use 'Corners' activity to allow students to express their feelings towards the characters and opinions in response to the questions.
- Students will take a short field trip to Walden to end the day. At Walden they will take a nature walk, and reflect in their journals on the meaning of solitude and reflection and how it relates to their personal experience. They will generate a list of questions that they would like to ask Thoreau about his experience at Walden if they could.

Week 3

Central Questions: What connections can we make between the text and our world? What connections can we make to the theme of man vs. nature in literature?

Day 1:

- Travel Brochure presentations: Students will be scored on a rubric which they will see in advance.
- Students write in journals to a prompt about how Santiago feels about his fish, and what his relationship is like with the Marlin.
- Minilesson on the theme of man vs. nature: Give examples from 'Old Man.' Discuss how the sea represents elements of life and its challenges. Use example of how Thoreau exists peacefully within nature and ask students how they felt during the trip to Walden.
- Class activity: Students create a "slide-show" in groups. They must plan four snapshots which involve several students depicting a scene from 'Old Man.' One student will narrate and describe the actions and characters to the rest of the class. -HW: Students are asked to develop a conversation between Santiago and his fish.

Day 2:

- Students read-aloud in small groups their fish conversations. In groups they answer questions: What is the role of the sea and its inhabitants? Do elements of the sea remind you of Santiago's fishing village? Society in general?
- Students present their slideshows. The audience must guess what scene each slide represents after it is presented.

Day 3

- Read a selection from Henry David Thoreau's 'Walden.' Read parts of the selection from solitude to the class and focus on certain sentences.

- Discuss Thoreau's relationship with nature when he was living at Walden pond. Talk about how he delights in the elements of a rainstorm or a snowfall. Discuss his language as he refers to the animals that live near him.
- Students write in their reader's journals about Thoreau's relationship to the world. They must use evidence from the text to describe this relationship. They should describe his feelings towards nature and quote the text.

-HW: Students revisit the "favorite place" assignment. Now they must add to and complete the assignment using Thoreau's piece as a model. They must describe how the place makes them feel and why.

Day 4:

- Minilesson on how to revise; how to offer appropriate advice. Students work in pairs to help each other revise their "favorite place" essay assignments.
- Workshop time: Students have opportunity to write about their opinions towards the readings: 'Old Man,' the haiku poetry, and 'Walden.'

Day 5-7:

- Students embark on adventure trip (Friday – Sunday hiking a part of the Appalachian Trail and the Mahoosuc Notch in Maine.)
- Some of the Language Arts minilessons/workshops during the trip will include opportunities for journaling, haiku poetry readings, and specific time set aside for the students to choose their objects and write their pieces inspired by nature for their final projects.

Resources:

http://www.renga-platform.co.uk/

http://www.csun.edu/~pjs44945/heming.html

http://www.bookrags.com/studyguide-oldmansea/techniques.html

http://www.appalachiantrail.org/site/c.jkLXJ8MQKtH/b.762661/k.C293/Maine.htm

http://www.sparknotes.com/lit/oldman/section1.html

Mathematics

As students learn about themselves and how they influence and are affected by the natural world around them, this unit will focus on geometry and its presence and applicability in nature. Students will also revisit the Cartesian coordinate system and apply their knowledge of algebraic equations to describe objects and locations in two dimensional space. They will then explore objects in three dimensions, learning to construct and transform them. They will also look for them in everyday situations realizing that geometry is a visible and tangible concept that lies all around them.

NCTM Standards addressed:

Problem Solving
Reasoning
Communication
Connections
Representation

MA Curriculum Frameworks addressed:

8.N.10 Estimate and compute with fractions (including simplification of fractions).
8.P.1 Extend, represent, analyze, and generalize a variety of patterns with tables, graphs, words, and, when possible, symbolic expressions.
8.P.4 Create and use symbolic expressions and relate them to verbal, tabular and graphical representations.
8.P.5 Identify the slope of a line as a measure of its steepness and as a constant rate of change from its table of values, equation or graph. Apply the concept of slope to the solution of problems.
8.P.6 Identify the roles of variables within an equation, e.g., $y= mx + b$, expressing y as a function of x with parameters m and b.
8.P.7 Set up and solve linear equations and inequalities with one or two variables, using algebraic methods, models and/or graphs.
8.G.5 Use a straightedge, compass or other tools to formulate and test conjectures, and to draw geometric figures.
8.G.6 Predict the results of transformations on unmarked or coordinate planes and draw the transformed figure, e.g., predict how tessellations transform under translations, reflections and rotations.
8.G.8 Recognize and draw two-dimensional representations of three-dimensional objects, e.g., nets, projections, and perspective drawings.
8.D.2 Select, create, interpret and utilize various graphical representations of data e.g., scatter plots.

Habits of Mind:

Finding and keeping focus
Simplifying questions and problems
Thinking fluently and flexibly
Searching for patterns
Using models
Cooperating and collaborating
Persevering

References:

Human Coordinate Plane:
http://fcit.usf.edu/fcat8m/resource/activity/planet.htm

Haunted House:
www.themathlab.com/Pre-Algebra/graphing/hauntedhouse.htm

Algebraic Stained Glass Window:
http://www.themathlab.com/Algebra/lines%20and%20distances/stained%20glass%20window.htm

Correlation:
NCTM Student Math Notes, November 1985

Map Projections:
http://www.rethinkingschools.org/archive/15_03/Map153.shtml

Week 1: Math and Me – exploring concepts of singularity.

Day 1:
Concept: Single points are defined by their coordinates. Use coordinates to locate points on a graph. Students act as points on a human coordinate plane.

Pre-assessment activity: Human Coordinate Plane

Materials:

A) 25 large ordered pair cards labeled as shown below:

(-2,2)	(-1,2)	(0,2)	(1,2)	(2,2)
(-2,1)	(-1,1)	(0,1)	(1,1)	(2,1)
(-2,0)	(-1,0)	(0,0)	(1,0)	(2,0)
(-2,-1)	(-1,-1)	(0,-1)	(1,-1)	(2,-1)
(-2,-2)	(-1,-2)	(0,-2)	(1,-2)	(2,-2)

Make additional cards with any of the above ordered pairs if there are more than 25 students in class.

B) Masking tape

C) 25 student desks and chairs

D) Additional chairs if there are more than 25 students in the class

Procedures:

25 student desks are arranged in a square array to represent a human coordinate plane. Place masking tape on the floor to mark the x- and y- axis.
Give each student an ordered pair card and ask them to sit in the appropriate seat representing the correct location. Use extra chairs when there are more than 25 students in the class resulting in more than 1 student to be sitting at certain desks.

Have students perform the following tasks:

- Ask students whose ordered pair card has 0 as the first number to stand. Through discussion, identify 0 as the x-coordinate and the students standing as the y-axis.
- Ask students who ordered pair card has 0 as the second number to stand. Through discussion, identify 0 as the y-coordinate and the students standing as the x-axis.
- Ask students with an x-coordinate of 1 to stand up. Teacher writes x=1 on the board. Ask students with an x-coordinate of –2 to stand up. Teacher writes x=-2 on the board. Through discussion, review that equations of the form written represent a vertical line which is parallel to the y-axis.
- Repeat the above with students with a y-coordinate of 1. Teacher writes y=1. Repeat with students with a y-coordinate of –1. Teacher writes y=-1. Through

discussion, review that the equation form shown represents a horizontal line parallel to the x-axis.

- Ask students whose ordered pair has a sum of 1 to stand. Write $x+y=1$. Keep them standing. Ask students whose ordered pair first number minus the second number equals 1 to stand. Write $x-y=1$. Through discussion, lead students to see that (1,0) is a point on both lines and represents the point of intersection.
- Repeat the above process with $x+y=1$ and $x+y=2$. Is there a point of intersection? Through discussion, review that if there is no point of intersection between lines, they are parallel.
- Review quadrants I, II, III, IV with the human coordinate plane.
- Repeat above processes with equations such as $x+y<2$. Ask students whose ordered pair sum is less than 2 to stand. Ask students who would be on the line $x+y=2$ to raise their hands. Through discussion, review any intersection, if any.

Day 2: A Quick introduction to scatter plots
Concept: Plotting points on a scatter plot is one way to construct a graphical representation of data.

Materials:
Correlation worksheet: What Makes a Perfect Pair?

Procedures:
This activity is to be done in pairs to see the diversity among students.
Students will rank ten popular shows from 1 to 10:

TV Show	Your Rating	Friend's Rating

How closely do your ratings compare?

Plot 10 ordered pairs so that each show can be represented by a point (your rating, your friend's rating). Plot these pairs on the grid.

For discussion:
How closely does your rating match that of your friend? What would the scatter plot of a perfect match look like? What would the scatter plot of exactly opposite ratings look like?

Day 3: Create a Haunted House: Coordinate Morphing Table
Concept: Geometric transformations can be performed by applying operations to coordinate points.

Materials:
Graph Paper: approximately 69 blocks tall, 40 blocks wide
Coordinate morphing table worksheet

Procedures:
Have students draw an x- and y- axis and design their own haunted house structure in Quadrants I and IV.

Mark 30 points along the perimeter of the house and label its coordinates.

Look at the attached coordinate morphing table. Use Think-Pair-Share in groups of 4 to hypothesize what the coordinate morphing table will do to the 30 points of the original haunted house.

Write down the 30 coordinates of the house on the morphing table. Multiply each coordinate by (-1/3) and write the results as fractions in the third column. Many of these fractions will be improper fractions. Reduce the coordinates in column 3 to whole numbers or mixed numbers to be written in column 4.

Graph the new coordinates in column 4. Where do the points lie? (Quadrants II and III)

Homework: Finish Coordinate Morphing Table

Coordinate Morphing Table Name_____

	ORIGINAL COORDINATE	Times -1/3	FRACTIONAL RESULTS AFTER MULTIPLYING	REDUCED COORDINATES
1	(,)	Times -1/3	(,)	(,)
2	(,)	Times -1/3	(,)	(,)
3	(,)	Times -1/3	(,)	(,)
4	(,)	Times -1/3	(,)	(,)
5	(,)	Times -1/3	(,)	(,)
6	(,)	Times -1/3	(,)	(,)
7	(,)	Times -1/3	(,)	(,)
8	(,)	Times -1/3	(,)	(,)
9	(,)	Times -1/3	(,)	(,)
10	(,)	Times -1/3	(,)	(,)
11	(,)	Times -1/3	(,)	(,)
12	(,)	Times -1/3	(,)	(,)
13	(,)	Times -1/3	(,)	(,)
14	(,)	Times -1/3	(,)	(,)
15	(,)	Times -1/3	(,)	(,)

16	(,)	Times -1/3	(,)	(,)
17	(,)	Times -1/3	(,)	(,)
18	(,)	Times -1/3	(,)	(,)
19	(,)	Times -1/3	(,)	(,)
20	(,)	Times -1/3	(,)	(,)
21	(,)	Times -1/3	(,)	(,)
22	(,)	Times -1/3	(,)	(,)
23	(,)	Times -1/3	(,)	(,)
24	(,)	Times -1/3	(,)	(,)
25	(,)	Times -1/3	(,)	(,)
26	(,)	Times -1/3	(,)	(,)
27	(,)	Times -1/3	(,)	(,)
28	(,)	Times -1/3	(,)	(,)
29	(,)	Times -1/3	(,)	(,)
30	(,)	Times -1/3	(,)	(,)

Day 4: Create a Haunted House: Part 2
Concept: Revisit the concept that geometric transformations can be performed by applying operations to coordinate points.

Procedures:

Connect all coordinates from morphed structure so transformation is visible. Finish decorating haunted house structure.

Do a Gallery Walk to see work of classmates.

Class discussion on coordinate morphing. What did the morphing do? Why did the points end up in Quadrants II and III?

Day 5: Battleship
Concept: As shown in haunted house structure exercise, a line is uniquely determined by two points. Line segments have endpoints and do not extend forever.

Materials:
2 Game Board worksheets: 10 x 10 grid of graph paper
Colored pencils

Students create their own placement of 5 battleships on their own grid. (2 ships having length "covering" 5 coordinates, 1 with length "covering" 4 coordinates, 1 with three coordinates and 1 with two coordinates).

Students use the second grid to mark their own hits and misses on their opponent's ships.

Students work in pairs to find and sink their partners' ships.

Week 2: Math and community – exploring concepts of joining points to form 2-D shapes.

Day 1: Battleship revisited with equations of lines in slope-intercept form

Materials:
2 Game Board worksheets from Day 2

Class discussion on lines and roles of variables, parameters, slope of horizontal and vertical lines

Day 2: Mystery Figure Worksheet

Materials:
Create the Mystery Figure Worksheet
Graph Paper

Create the Mystery Figure Name _____

1) Complete each of the charts below.

X	Y = 0X + 6		X	Y = (-X) + 10		X	Y = 0X + (-6)
-3			-2			-5	
-1			-1			-3	
0			0			0	
2			1			2	
4			3			4	

X	Y = X + 10		X	Y = (-X) +(-10)		X	Y = X + (-10)
-3			-2			-5	
-1			-1			-3	
0			0			0	
2			1			2	
4			3			4	

2) Graph these lines on graph paper. Label each line with its equation. In each group, compare answers and graphs. Select one representative from each group to draw one of the lines of the graph on the white board in front of the class.

3) Draw and shade inside the rectangle with these vertices: (1,6), (1,8), (-1,8) (-1,6)

You are now looking at the perimeter outline for a “space-age algebraic” decoration.

Discuss as a class the relationship between coordinates and equations in slope-intercept form.

Day 3: Battleship revisited with diagonal ship placement

Materials:
2 Game Board worksheets: 10 x 10 grid of graph paper
Colored pencils

Students create their own placement of 4 battleships on their own grid. (4 small ships "covering" two coordinates each).

Students use the second grid to mark their own hits and misses on their opponent's ships.

Students work in pairs to find their partners' ships. A ship can only be sunk when the equation of the line on which the ship sits is stated by the sinker.

Days 4-5: Stained Glass Window and Cartesian Coordinate Puzzles
Concept: Join line segments to form shapes. Algebraic equations can be shown graphically.

Materials:
Graph Paper
Colored paper
Colored Pencils
Holiday stickers and embellishments (optional)

Procedures:
Draw a coordinate plane so that the x and y axes extend to the edge of the paper. Lightly number the axes to the edges of the paper.

Create an ornate arrangement of at least 6 horizontal and diagonal lines. Label each line with its respective equation.

In pairs, write equations for six diagonal lines. Be sure that each equation has both x and y variables and that the equation is in linear form. Experiment with these equations. See if you can figure out how changing the number in front of the x variable and changing the constant b can change the placement of the line. Is there a pattern?
Use Think-Pair-Share with another pair to discuss your findings.

Back to your own graph, your goal is to draw 6 diagonal lines to intersect your horizontal and vertical lines. Write equations that will put the lines where you want them to go.

Homework: Go in and color the sections of your paper that have been created by the intersecting lines to create a stained glass window when held up to the light. These will be hung up along the wall to show off student work.
1 Cartesian Coordinate Puzzle to be done at home. (Puzzles contain large lists of coordinate points. When completed, a 2-D shape will be completed on graph paper).

Week 3: Math and environment – extending 2-D shapes to a 3-D context, and preparing for culminating event.

Day 1: Geometry scavenger hunt in the classroom
Concept: Geometric shapes can be found in all settings. Geometry is a very visual and tangible subject.

Procedure:
Discuss how basic geometric shapes can be found all around the classroom. Students will be prepared to look for examples of geometric concepts explored in class while on their culminating activity trip. Students will be asked to photograph or draw examples form the scavenger hunt. Have class help make the list of items to include on the scavenger hunt list for the trip using a Pens-in-the-Middle small group discussion format.

Day 2: Reverse classroom scavenger hunt
Procedure:
Teacher takes pictures of geometric objects around the classroom and enlarges them so that each group of four students has 4 different pictures. Students need to identify where in the classroom these objects exist.

Variation on a geometry scavenger hunt:
http://www.glc.k12.ga.us/BuilderV03/LPTools/LPShared/lpdisplay.asp?LPID=62742
Homework: Have students use the Internet in order to find more facts about geometric shapes.

Day 3: Preparing students for their outdoor experience by using maps.
Concept: Maps are 2-D representations of the 3-D earth.

Materials:
Graph paper
Area map of approximate area where students will be on their outdoor experience

Procedures:
Students will look at an approximate map of the area they will be exploring on their trip. This will involve estimating concepts such as area, distance, proximity to main roads, water supply, etc.

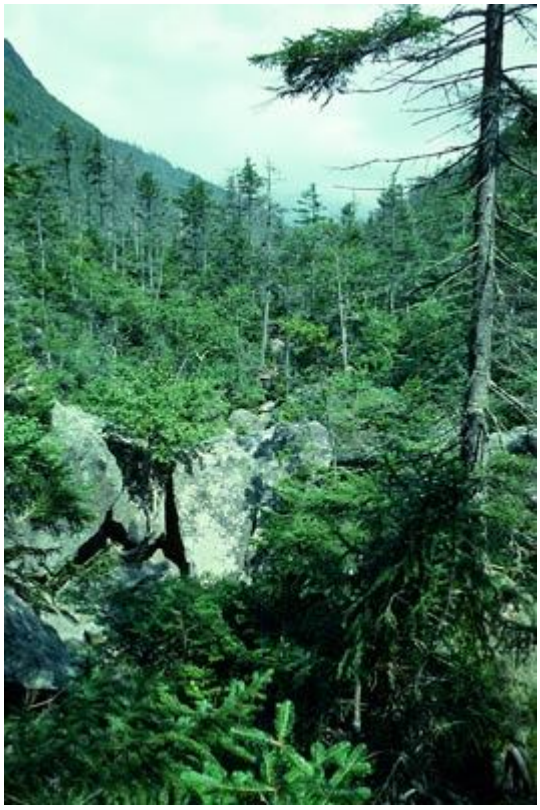
In small groups, students will revisit scale, graphing using a coordinate system, and how it applies to an actual map. This exercise combines knowledge of number sense and operations, geometry, and estimation.
Days 4-5: Preparing for further explorations of 3-D polygons in a subsequent unit in which students will use straightedges, compasses and protractors to construct 3-D polyhedra.
Concept: 3-D polyhedra can be hand-built from drawing a 2-D diagram (first on graph paper, and then on blank card stock).

Adventure:

Students will begin the unit during an adventure-based kick-off at school that includes team-building and cooperative learning activities. During this time students will understand the expectations for the trip. They will feel part of the class community and learn more about their classmates. They'll learn about the culminating activity, a hiking trip on a part of the Appalachian Trail in Maine. They'll learn about the Mahoosuc Notch, a steep-walled valley between Fulling Mill Mt. and Mahoosuc Mt. Cut by glaciers, the notch holds huge blocks of rock from the cliffs. It is filled with chunks of schist that have given this piece of the AT its reputation for ruggedness and put it on the National Register of Natural Landmarks. Hikers here must climb over, crawl under, and jump between these huge slabs and boulders. Many remove their backpacks and drag them in order to pass through the tightest squeezes. Students will be told how they will use their knowledge of climbing and capabilities as a team to conquer the notch and have fun during the rest of the trip.

During the three weeks, students will learn the basics of nutrition in the backcountry, and each student will work with a partner to plan a meal for the trip. Students will understand the elements of an effective tarp shelter. They will work together to set up a tarp shelter in small groups. They will also see several adventure movies to learn about first- and second- hand survival experiences. The unit will culminate during the hiking trip when students have an opportunity to use some of the skills and appropriate behavior which they have learned.

Entrance to the Mahoosuc Notch



Week 1:

-1/2 day of engaging activity – teambuilding exercises and adventure challenge.

- Watch Shackleton movie

Important ideas:

-Need vs want – What did Shackleton and his men need to survive?

-Students work together to define the three most important expedition skills needed to survive.

-Preparation – How did Shackleton prepare for his expedition? How will we prepare for ours?

- Shelter-building – What are the elements of a good shelter? Class discussion. Give examples of shelters used in survival and expedition situations.
  -Students teach one example of a good shelter to the rest of the class.

- Class contract – In teams, classes will create a list of expectations for the hiking trip that are adapted from the contracts they use during classes at

school. Every student will have to sign the contract, and it will be signed as well by their teachers and parents.

Week 2:

-Discussion of the 7 Principles of Leave No Trace. Why are they important? How is it important in connection to the natural environment on the Appalachian Trail?

-Sketch or drawing of the LNT principles for display at school

-Meal planning assignment – Discussion of backcountry food triangle and brainstorm on what foods would qualify. Students will design a meal which is nutritious (according to backcountry nutrition triangle), doable in the outdoors, and can be cooked for a group of 10-12 people. They can plan to use a stove burner, a few pots, and any kitchen supplies we can carry. They must keep in mind that a minimum of trash needs to be carried off the trail.

-Appropriate outdoor dress, layering, and emergency pack. Students will learn about what clothing to bring to be prepared for an emergency and how to dress appropriately.

-Layering activity: clothing layering relay race with borrowed gear from REI

-Outdoor service minilesson: Students will learn about trail cleanup and trail building. They will work together to do some outdoor service locally such as woods clean-up and daily maintenance of the schoolyard.

-A representative from the conservation society at Plum Island in Newburyport MA will serve as a guest speaker in Adventure classes: he or she will talk about the trail cleaning and trail building opportunities at Plum Island and why these activities are important to the ecosystems there.

Week 3

-TRIP PREP: During the last week before the trip students will use their adventure classes to prepare for the trip. The teams will place students in groups of four. In these groups students will make their Trip Plan. The Trip Plan must include the following: Names of group members, resources (equipment and supplies), hazards (weather or time concerns), linear distance (how many miles will they be hiking),

elevation gain, estimated speed of travel, written description of route (including land markers like trail intersections, steep/flat sections, bends in the trail, etc.)

Hiker Passing Through the Notch

8th Grade Teams
Appalachian Trail Hiking Trip Information Letter
October 20-22

Dear Parents,

We are thrilled to invite you to an informational night regarding the 8th grade hiking trip to the Appalachian Trail that is scheduled for October 20-22. The trip is a culminating activity for a 3-week unit in which students will learn about the connections between themselves and the world around them. In their core classes students will learn and recognize how writers, artists, and explorers of the past have enriched their lives through their experiences with nature. They will investigate the relationships and connections between populations and their larger community. They will read 'Walden' by Henry David Thoreau and have an opportunity to experience a similar sort of solitude and reflection. In their related arts classes, students will prepare for the trip and learn how to represent nature through art. We hope that the students will emerge from the unit with a heightened responsibility for learning, and greater feeling of connectedness to the world. Please join us next week when we present the trip plan, behavior contract, and our requests for clothing and equipment. We are grateful for your support, and excited to embark on a hands-on learning experience that will provide students with a direct relationship to the world around them.

Looking forward to seeing you next week!

Sincerely,

Your 8th grade teachers

Integrated Arts

The unit on me, my community, and my world will involve a strong unified arts presence. Including the adventure segment of the unit, which incorporates physical education and bodily-kinesthetic intelligence, the students' study of themselves, their community and world will allow them to explore their creativity in different avenues. At the beginning of the unit, the students will be instructed and encouraged to try different methods of art expression, including but not limited to the week long courses of study. Their art expression will relate to their courses of study and they will be asked to examine the connections between their art, themselves, their communities and the world they live in. Our genuine hope for the art segment of the unit is that the students can use the multiple intelligences they are most comfortable with and develop their segment of the culminating activity with that particular strength in mind. We have chosen to focus particularly on drawing nature, photography of the natural world and photojournalism, and a weeklong segment on political cartooning. However, students are not limited to this scope and they will be encouraged, with our approval, to use any other medium for their arts section of their culminating activity. (Massachusetts has arts frameworks established statewide but they are not compulsory.)

Week One: Drawing Nature (nature journaling)

This week's lesson will be adapted from pbs.org's lesson plan regarding nature journaling. The students will practice drawing the plants, animals, and natural formations they will be seeing, and also on saving leaves and any thing else they may wish to gather

for their edification or for use in their culminating activity. They will put together their own unique journal for use in their outdoor segments of the unit.

Homework will be to choose one aspect of your own yard to draw and bring to class.

Week Two: Photography, Nature and Photojournalism

The students will receive instruction on the basics of photography and will view photographs by Ansel Adams as inspiration. (This lesson will be adapted from the educator's guide from the University of Arizona's Center for Creative Photography, see "Resources" below.) The students will then have a practice day of photography on the school grounds. Materials needed for this class include: Photography slides, cameras for practice work. Following their lessons on photography and how to use it, we will move to an "Images of the West" lesson plan adapted from pbs.org. This lesson plan will guide the students as they analyze art from the period of time we are studying. They will be able to examine works of art and photography that portray the West. Included in this discussion will be an exploration of the then-burgeoning field of photojournalism. Small groups will analyze different works of art and then share their findings with the rest of the class. For their small group analysis and discussion, the students will be given works of art by the following artists (and accounts of their lives and careers):

George Catlin, Thomas Moran, Albert Bierstadt, Matthew Brady.

The students will be given a few questions to guide them but also be encouraged to explore their own interpretations of the artwork.

Guided questions to be used include:

What do you think the artist's perception of the West was?

How were the Native Americans depicted in these works?

Do you think this photograph or landscape was done by an artist who felt positively or negatively about the concept of Manifest Destiny?

Homework: on your own, research another artist or photojournalist from this period. Write a brief description of his or her work, and compare and contrast it with the artist you analyzed in class.

Week Three: Political Cartooning

This week's lessons will be adapted from the ASU website with multiple lesson plans on political cartooning. They will discuss the history of political cartooning, what the basic elements of a political cartoon consist of, where to find them, and what distinguishes a particularly effective political cartoon. The students will view examples of political cartoons in class. After their overview describing the elements that go into a political cartoon, the students will be free to choose a topic that relates to their unit (for example, environmentalism, abolition, pre-Civil War tensions, etc.) and draw their own political cartoon. Homework will be to finish and hone the political cartoon to make it effective in conveying well its point!

Resources:

(Nature journaling) http://pbskids.org/backyardjungle/info/adults.php

(Ansel Adams)http://www.ccp.arizona.edu/branches/ccp/education/guides/aaguide/aainguid.htm

(The West)http://www.pbs.org/weta/thewest/lesson_plans/lesson05.htm

(Political cartooning) http://artswork.asu.edu/arts/students/cartoon/index.htm