Title:  **SPARK! Student Protectors and Resource Keepers**

Abstract/Vignette:  *Middle school students will be immersed in creating environmental activities which will promote stewardship of our land, water, environment, and historical significance.*

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

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

Discipline: Please check all that apply.

- [x] Literature and Language Arts
- [x] Mathematics
- [x] Science
- [x] Social Studies and Geography
- [ ] History
- [x] Technology

Year Developed:  **2007**

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

Teaching environment:

- [x] In the Classroom (indoors)
- [x] Outdoors
- [x] In the Community
- [ ] Online/Virtual
SPARK!
Student Protectors and Resource Keepers

A Trail to Every Classroom

Susan Carpenter
Kathleen Thomas
Elizabeth Wills

Gettysburg Area Middle School
Gettysburg, Pennsylvania
October 2007
Table of Contents

Introduction
Standards and Outcomes
Essential Questions
Skills and Habits of Mind
Community-Based Learning Opportunity
Vocabulary
Proposed Unit Projects
Activities
First Quest
Related Texts
Analysis and Interpretation of Literature
Models
Product
Assessment
Additional Opportunities
Final Celebration
Evaluation of Unit
Introduction

SPARK is a place-based educational project designed to engage students in their school, community, state, and national environment. It is our goal that as students work through the questing activities they will develop a life-long appreciation of their community as both an historical and environmental region to be cared for and treasured. The following pages represent a solid, yet flexible, work-in-progress curriculum for the students of Gettysburg Area Middle School.

The curriculum incorporates Pennsylvania’s state standards in math, science, social studies, and language arts. In addition to the academic focus, our students will gain the cooperative and social skills of leadership and group dynamics needed throughout their careers and life experiences. Finally, they will learn the importance of becoming stewards of our environment showing respect, appreciation, and enjoyment of Earth’s remaining lands.

Our quests begin within the school classroom and the campus as classroom and lead into our community as an historical battlefield, and finally to the Appalachian Trail utilizing both the Pennsylvania and bordering Maryland regions. It is our vision to lead our students as far as their interests and motivation extends.

Our first quest will be designed, created, and produced by middle schools students for use by the Gettysburg Area Middle School teachers and students; thereafter our students will be actively engaged in producing quests for our community, tourists, and hikers.
Standards and Outcomes

Project SPARK will incorporate the following academic standards within the Pennsylvania State Standards for:

CIVICS AND GOVERNMENT

5.2 Rights and Responsibilities of Citizenship
   5.2.6 Compare rights and responsibilities of citizenship (both individual and society)

GEOGRAPHY

7.1 Basic Geographic Literacy
   7.1.9 A Explain geographic tools and their uses
   7.1.9 B Explain and locate places and regions

7.2 Physical Characteristics of Places and Regions
   7.2.9 Explain the physical characteristics of places and regions including spatial patterns of earth’s physical systems.

7.3 The Human Characteristics of People and Regions
   7.3.6 B Describe the human characteristics of places and regions by their cultural characteristics.
   7.3.9 C Explain the human characteristics of places and regions by their settlement characteristics.

7.4 The Interactions Between People and Places
   7.4.9 A Explain the impacts of physical systems on people.
   7.4.9 B Explain the impacts of people on physical systems.

ENVIRONMENT AND ECOLOGY

4.7 Threatened, Endangered, and Extinct Species
4.8 4.7.7 C Explain natural and human actions in relation to the loss of species.
4.9 **Humans and the Environment**

4.8.7 A  Describe how the development of civilization relates to the environment
4.8.7 D  Explain the importance of maintaining the natural resources at the local, state, and national levels.

**READING, WRITING, SPEAKING, AND LISTENING**

1.1 **Learning to Read Independently**

1.1.8 G  Demonstrate after reading understanding and interpretation of both fiction and nonfiction texts including public documents.

1.4 **Types of Writing**

1.4.8 B  Write multi-paragraph informational pieces (e.g., letters, descriptions, reports, instructions, essays, articles, interviews).
1.4.8 D  Maintain a written record of activities, coursework, experience, honors and interests.

1.8 **Research**

1.8.8 B  Locate information using appropriate sources and strategies.

**MATHEMATICS**

2.3 **Measurement and Estimation**

2.3.8 F  Use scale measurements to interpret maps or drawings.
2.3.8 G  Create and use scale models.
ESSENTIAL QUESTIONS

What do we want our students to learn about the natural area, named South Woods, located on school property.

What do you, the students, want other families (not from Gettysburg) to know about your town and/or the Battle of Gettysburg?

What do we want our students to learn about the Appalachian Trail including historical facts and current and future use?
SKILLS AND HABITS OF MIND

LIFE SKILLS

1. Students will gain social and communication skills as they work together.

HABITS OF MIND

1. Students will incorporate appreciation of their natural environment into their adult lives.
2. Students will become stewards of their environment.
3. Students will be able to articulate responsibilities of good citizenship.
COMMUNITY-BASED LEARNING OPPORTUNITY

Opportunities that exist in the school and community that could serve as an experiential and integrating focus for the students’ learning include:

Land Use

South Woods – School District Property
Gettysburg Battlefield and Borough
Appalachian Trail

Service Organizations

National Park Service
DCNR State Park Service
Pennsylvania Department of Environmental Protection
Gettysburg Historical Society
Local Service Clubs
Appalachian Trail Clubs
Fish and Game Commission
Vocabulary

Objective: The student will identify, explain, and use environmental terms in a questing document.

Initial words to be taught:

preservation
heritage
habitat
environment
resources
conservation
natural resources
stewardship
social justice
vulnerability
questing
Appalachian Trail

Activities to teach vocabulary include, but are not limited to, the following strategies:

List, Group, and Label
Rivet
Vocabulary trees
Compare and Contrast
Word families

Assessment:
The correct use of terms within a student published document.

**** As the unit progresses more vocabulary will be introduced as needed.
PROPOSED UNIT PROJECTS

In a project called SPARK, our middle school students will be immersed in creating environmental activities which will promote stewardship of our land, water, environment, and historical significance.

Beginning with the school’s natural habitat – South Woods, our students will design, create, and publish a Quest for the use of Gettysburg Area Middle School students. Upon completion of this Quest students will begin to study the historical significance of the town of Gettysburg and the surrounding battlefields in order to create a second Quest of the local area. A culminating activity will be a field trip to the Appalachian Trail.
ACTIVITIES

Following are the sequential steps and activities in which the students will participate:

**Part I**

1. Students will complete the teacher created Quest of South Woods.
3. Students will choose a fictional piece of environmental literature and complete journal responses.
4. Students will create a map of South Woods using geography tools and mapping skills.
5. Students will design and create curriculum activities to be included in their own Quest of South Woods.
   - Examples: Water Quality Test
   - Soil Study
   - Tree Age
   - Insect Investigation
   - Observation
   - Decomposition of man-made and natural items
   - Decisions, Decisions
   - Descriptions of Environmental Stations
6. Students will analyze their activities using “On the Fence” reflection strategy.
7. Students will create and test a South Woods Quest.
8. Students will publish the Quest.
9. Students and teachers will implement this Quest for use by all students.

**Part II**

1. Students will take an historic walk through the town of Gettysburg and surrounding battlefields collecting information to create clues for historic Quest.
2. Students will be grouped for researching, mapping, designing, and creating clues and Quest boxes.
3. Students will design and create curriculum activities to be included in their own Quest of historic Gettysburg.
4. Students will analyze their activities using “On the Fence” reflection strategy.
5. Students will create and publish a Quest about historic Gettysburg.
6. Students will request a school administrator to test the Quest.
7. Students and teachers will advertise this Quest in local media.
8. Students will invite local dignitaries to be the first to complete their Quest.
First Quest
Or
The Beginning of the Journey

Students involved with SPARK will initially use the following teacher-made Quest to motivate them and guide them into writing their own more extensive and detailed Quest. The Quest below is intentionally simple so that being too challenged won’t interfere with their enjoyment; it is also using the area around the middle school and South Woods so that the students will be in familiar surroundings. Many of our students are indoors playing computer games, IM’ing, cell phoning and watching TV. It is our goal to encourage these students to get outdoors and enjoy their surroundings, and to keep them coming back for what the outdoors can offer.

Outdoors, here we come!
We’re ready, prepared, and can’t wait to get started.
So, walk toward the mascot and stop at his feet.
Turn north and look where you just came from.

1. **Using your journal page, draw a map to show the route you just walked to get here.**

   Turn your face to the south, and your toes to the east.
   Walk 100 paces, and tell me, what do you see?
   Do you see the big arch?
   Do you see the bridge?

2. **Write down your first thoughts on seeing the bridge.**

   Walk cautiously over the boards
   Quiet now, what do you see?
   The woods are before you,
   Tell me what do you hear?

3. **In your journal, write down two sounds that you hear, and two things that have caught your eye.**
A word to the wise
An important idea
Please leave no trace
While we are here.

Just leave the woods standing
Break not any branch
Observe and enjoy
And we’ll come back for lunch!

4. What observations can you make about the way others have left their mark on this area? Write them in your journal

See what’s just up ahead?
Is it clear, or cloudy?
Is it burdened with trash?
Or free from all that?

What colors are seen?
What scents, what noises?
Write them all down,
And then we’ll discuss them.
RELATED TEXTS

Teacher Texts


**Teaching Leaving No Trace.** US Forest Service and Bureau of Land Management.


Student Texts

**Geography, The World and Its People.**

**Chasing Redbird** by Sharon Creech

**To Build a Fire** by Jack London

**Hatchet** by Gary Paulsen

**Dog Song** by Gary Paulsen

**The Girl Who Loves Tom Gordon** by Stephen King
ANALYSIS AND INTERPRETATION OF LITERATURE

Students will respond to their literature using the following techniques and strategies:

1. Graffiti Response
2. Reflection activity
3. Discussion of journal
4. Student drawings
5. Student poetry
6. Drama
7. Environmental poetry, art, and music
8. Persuasive pieces to be published in local media
9. Creating children’s books to be shared with primary grade students
MODELS

In order for students to understand the goals of questing, we will use the following examples:

*Questing, A Guide to Creating Community Treasure Hunts* by Delia Clark and Steven Glazer. (Students will read and analyze the elements of a Quest)

DVD example of a published student Quest

Teacher – Created Quest: “The Beginning of the Journey” (see attached)

Student – Created Quest – the initial model
PRODUCT

This first Quest, *The Beginning of the Journey*, will be shared with the students and faculty of the Gettysburg Area Middle School. Using GAMS’ television network, our students will present an informative program about South Woods to stimulate curiosity and interest. It is our hope that the students will explore this area behind our school, and that South Woods will be better utilized by the entire student population.

As an introduction to the Middle School the Quest will be presented to our district’s elementary students in Lincoln Intermediate School which is directly across the street from the Middle School and easily accessible.

To make the community aware and foster involvement, pictures and photos will be published in our local newspaper, *The Gettysburg Times*. In addition, the students will prepare a presentation for ACTV, our local television station.
ASSESSMENT

Project Evaluation

Completion of student Quests
Documented increased use of South Woods
ADDITIONAL OPPORTUNITY

100 Point Project

- Each student will have the opportunity to complete an individual project within the parameters of SPARK. The project is contracted with their specific core subject teacher. Upon successful completion of the contracted project, the student will earn one grade of 100% entered into that subject. Some examples of the projects could include art work, posters, power point or other presentations, reports, and writing pieces.
FINAL CELEBRATION

Teachers, students, and their families will celebrate the completion of SPARK by taking a field trip to the Appalachian Trail to enjoy a hike and reflect upon the importance of preserving the trail for generations to come. All participants will be invited to share their thoughts, experiences, and hopes for the trail.
EVALUATION OF UNIT

As the students become involved with writing their first Quest, and presenting it to their peers, the assessment becomes clear:

- Are the students enjoying their time outdoors?
- Are they outdoors on a more regular basis?
- Have they coaxed their families into more outdoor activities?
- Are they interested in pursuing more projects in the environment?
- Is there an increased interest in the South Woods?
- Is South Woods being utilized for learning and fun activities by the middle school faculty and students?

If all the answers are yes, we have been successful; if not, we have more work to do.