Title: Nature's Classroom in our Backyard: Connecting to the Appalachian Trail for Learning, Fitness, Wellness and Recreation.

Abstract/Vignette: Students will learn about:
- History/presence of A.T. in community
- Backpacking/hiking as fitness/recreation
- Natural beauty of the community
- Environmental needs of community
- Service needs/job opportunities

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: 2006

Period (month, week, year): Year
Nature’s Classroom in our Backyard: Connecting to the Appalachian Trail for Learning, Fitness, Wellness and Recreation.

Place based education: Craig County Virginia Program Model
Submitted by Sue Crenshaw and Mary Catherine Slack, August 15, 2006
Content (Students will learn about): History/presence of AT in community
Backpacking/hiking as fitness/recreation
Natural beauty of the community
Environmental needs of community
Service needs/job opportunities

Service need: The Appalachian Trail traverses the entire length of Craig County. Few in our community are aware of this resource. The stretch of trail in our county is difficult and no supports are in place for hikers using the AT in our county.

Service Idea: Develop and implement cross curricular learning activities based upon the place based education and service learning models across all grade levels to raise awareness and use of the AT as a learning resource in our community. Continue with service learning activities of the Appalachian Arts and Studies in Schools (AASIS) scholarship program conducted in conjunction with Radford University designed to connect students in our area to the AT and improve community support for the AT.

Preparation: Coordinate with Appalachian Trail Conservancy (ATC), trail clubs and National Forest service officials in our region to identify and coordinate service needs related to the AT. Involve Mountain Lake Conservancy in curriculum development. Train teachers in our school system on place based learning and service learning education models. Identify teachers in county who wish to participate in place based education and service learning projects. Share Connecting to the Trail unit/curriculum with other AASIS school in our region and encourage service-learning projects connected to the AT in their respective school systems. Secure administrative support at the Superintendent level for curricular projects. Secure loaner equipment for student hikes. Investigate and secure funding for service learning activities.

Action: Hike remaining sections of trail in Craig County with AASIS students. Provide hiking activities for others in system through AASIS alumni mentors and clubs. Develop a hiking guide for sections of the AT through Craig County. Conduct trail feed events in fall and spring for thru hikers. Survey students/members of the community to assess knowledge and attitudes regarding the AT in our area. Continue and expand trail angel activities. Prepare AT displays in public areas of the school buildings and at the Fall Festival. Students choose service based learning activities from a menu of ideas.

Reflections: Journals, interviews with thru-hikers.
**Demonstration:** Photograph/video journal of scenic views/water sources/shelters along the AT in Craig County. Student created hiking guide for section of trail in Craig County (containing directions to trail heads, descriptions of hiking difficulty, possible fitness benefit, equipment needs, projected time of hike etc). Document in-service activities and coordination activities with AASIS schools and partners.

**Curricular Connections:**
(following teacher workshops, Virginia SOL linkages will be identified.)

**Language Arts:** Journal writing/reflection, research and investigation, explore folklore surrounding the trail, write text for hiking guide.

**Social Studies:** Develop mapping portion of hiking guide, survey knowledge and attitudes about the AT in our community using a representative sample of people within the community.

**Mathematics:** Develop and compute distance/time calculations, kilocalorie expenditure, mapping-step (stride correlations).

**Science:** Participate in environmental science studies on the trail related to water quality and invasive plant study. Develop McCleary Elementary School demonstration garden. Develop quest activities appropriate to grade level curriculum standards and community resources. Participate in Save Our Streams Virginia program of stream and creek monitoring.

**Art/Music:** Photography, painting and drawing of trail vistas: best of entries to be included in trail maps and brochures.

**Building Trades and Agriculture:** Plan and implement bridge building project for Laurel Creek, participate in trail maintenance activities.

**Health and PE:** Study nutrition and wellness related to the trail and hiking. Participate in a “Virtual Hike” of the AT through Craig County, the state of Virginia, the four ATC regions and entire trail as a fitness activity. Include teachers in fitness challenge.

**Special education/Vocational Transition:** Explore and identify job opportunities related to AT, Forest Service, and outdoor recreation.

**Implementation References:**
- Learning is Supported through Community Partnerships: Partners Identified and Unit Timeline Blocks (File name: PBE Learning Standards and Partnerships)
- Craig County High School’s AASIS Scholars Class (November-May): Place Based Education and Service Learning Lesson Format (File name: PBE Connecting to the Trail Unit Lesson Plan)
- Place Based Education Event-2006 Slideshow (File name: PBE Craig County HS AASIS 0506 Event Slideshow; note, to view slideshow perform a hard return after each slide)
Nature’s Classroom in our Backyard:  
Connecting to the Appalachian Trail  
for  
Learning, Fitness, Wellness and Recreation

Place-based Education:  Craig County Virginia Program Model
Submitted by:  Sue Crenshaw and Mary Catherine Slack, August 15, 2006

Learning is Supported through Community Partnerships

Partners Identified and Unit Timeline Blocks
## Partnership Development and Unit Timeline Blocks

<table>
<thead>
<tr>
<th>Community Stakeholders</th>
<th>Areas of Focus for Stakeholder</th>
<th>Potential Place-Based Education Partnership Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appalachian Trail Conservancy: Laura Belleville</td>
<td>Raising local awareness of the ATC; Financial Support; Training; Equipment; Trail Maps; Education Materials; International Exchange</td>
<td>Technical expert; Guest speaker; resource support</td>
</tr>
<tr>
<td>Wilderness Conservancy at Mountain Lake: Dave Deshler</td>
<td>Curriculum Writing; SEEDS Linkages; Training/Education Facilities; Global Connections; Credentialing</td>
<td>Technical expert; Guest speaker; resource support</td>
</tr>
<tr>
<td>Roanoke Appalachian Trail Club</td>
<td>Trail Maintenance; Guided Hikes; Map/Brochure Development; Program Support</td>
<td>Technical experts; Guides; resource support; sustaining partners</td>
</tr>
<tr>
<td>VT Outdoor Education Program’s Appalachian Trail Club</td>
<td>Trail Maintenance; Guided Hikes; Map/Brochure Development; Program Support</td>
<td>Technical experts; Guides; resource support; sustaining partners</td>
</tr>
<tr>
<td>Giles County/Craig County/State Cooperative Extension Service – 4-H Youth Development: Charles Lyton, Sally Ferrell</td>
<td>Equipment; Grant Writing Experience; Workshop Models; Interstate/International Exchange Models</td>
<td>Technical experts; Guest speaker; resource support</td>
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<tr>
<td>Boy Scouts</td>
<td>Outdoor Adventure; Trip Support; Service Project Partners</td>
<td>Technical experts; Guides; resource support; sustaining partners</td>
</tr>
<tr>
<td>Ruritans</td>
<td>Service Project Partners; Grant Writing Experience; International Exchange Models</td>
<td>Technical experts; Guest speaker; resource support</td>
</tr>
<tr>
<td>Unit Timeline: Date</td>
<td>Class/Event/Task</td>
<td>Place-Based Education Partnership</td>
</tr>
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</tr>
</tbody>
</table>
| September - May     | AASIS Scholars Class – 1 class block/month and evenings/weekends per event design | Appalachian Trail Conservancy: Laura Belleville  
  - Raising local awareness of the ATC; Financial Support; Training; Equipment; Trail Maps; Education Materials; International Exchange  
  - Technical expert; Guest speaker; resource support |
|                     | Reference Unit Lesson | Roanoke Appalachian Trail Club/VT Outdoor Education Program’s Appalachian Trail Club  
  - Trail Maintenance; Guided Hikes; Map/Brochure Development; Program Support  
  - Technical experts; Guides; resource support; sustaining partners |
|                     |                  | Ruritans  
  - Service Project Partners; Grant Writing Experience; International Exchange Models  
  - Technical experts; Guest speaker; resource support |
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</table>
| September and October    | RU AASIS Teacher’s Network – Connecting to the Trail: 1.5 hour teacher workshop, Craig County’s Place-based Education/Service Learning Program Model | Appalachian Trail Conservancy: Laura Belleville  
  - Raising local awareness of the ATC; Financial Support; Training; Equipment; Trail Maps; Education Materials; International Exchange  
  - Technical expert; Guest speaker; resource support  

  Wilderness Conservancy at Mountain Lake: Dave Deshler  
  - Curriculum Writing; SEEDS Linkages; Training/Education Facilities; Global Connections; Credentialing  
  - Technical expert; Guest speaker; resource support  

  Craig County Staff – Connecting to the Trail: 1.5 hour teacher workshop, Craig County’s Place-based Education/Service Learning Program Model |
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<th>Class/Event/Task</th>
<th>Place-Based Education Partnership</th>
</tr>
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</table>
| October, kick-off; continue through May | Community Awareness and Information Sharing Related to the AT and Environmental Stewardship | *Giles County/Craig County/State Cooperative Extension Service – 4-H Youth Development: Charles Lytton, Sally Ferrell*  
- Equipment; Grant Writing Experience; Workshop Models; Interstate/International Exchange Models  
- Technical experts; Guest speaker; resource support  
*VA Save our Streams Program – Wes Jargowski*  
- Technical training; facilitate quarterly stream monitoring; program support  
- Technical experts; resource support with DEQ linkages; sustaining partners |
| November, kick-off, continue with monthly guided hikes/events | Outdoor Adventure – AT Connections | *Roanoke Appalachian Trail Club*  
- Trail Maintenance; Guided Hikes; Map/Brochure Development; Program Support  
- Technical experts; Guides; resource support; sustaining partners  
*VT Appalachian Trail Club*  
- Trail Maintenance; Guided Hikes; Map/Brochure Development; Program Support  
- Technical experts; Guides; resource support; sustaining partners  
*Boy Scouts*  
- Outdoor Adventure; Trip Support; Service Project Partners  
- Technical experts; Guides; sustaining partners |
**Connecting to the Appalachian Trail**

Craig County High School’s AASIS Scholars Class (November-May) Place Based Education and Service Learning Format
Submitted by: Sue Crenshaw and Mary Catherine Slack, August 15, 2006

**LESSON TITLE**
“Connecting to the Appalachian Trail”

**GRADE LEVELS**
Targeted grade level(s): 11-12, but remember that all lessons may be adapted to any level.

**TIME ALLOTMENT**
Seven 90-minute class periods (minimum), a one-day field experience and a two-day field experience needed to complete the unit lessons

**OVERVIEW**
The Appalachian Trail (AT), a 2,175 mile footpath stretching from its southern terminus in Georgia to its northern terminus in Maine, connects Craig County’s southwest boarder and northeast border with 38 miles of rugged, awe inspiring terrain. “Connecting to the Appalachian Trail”

- provides the learner with an opportunity to develop backcountry hiking and wilderness backpacking skills;
- enables the learner to explore remote areas of their home community; areas often seen on the far horizon from their back porch or off in the distance through the windshield of their vehicle;
- challenges the learner to apply historical knowledge in their personal reflection on those who walked before them on the mountain pathways over the past one thousand years, from the early Native Americans to the first settlers to those distant kinfolk who clung to the mountain for survival to the 8,000 through-hikers, a multitude of section-hikers and day-hikers who reach solace in the still of the hills, rocks, streams, as they walk, *Connecting to the Appalachian Trail.*
SUBJECT MATTER CONNECTIONS

Language Arts: journal writing/reflections
Social Studies: map reading training and review of AT trail and topography maps, research AT sections to select portion for overnight hike, introduce trail history
Mathematics: inventory personal hiking/backpacking equipment, calculate distance/time requirements of hike, calculate pack weights per individual hiker
Science: identify equipment needs based on temperature ranges, discuss “leave no trace” practices and environmental responsibility per hiker, calculate water and food needs
Art/Music: presentation design for AASIS power point presentation
Health and PE: determination of conditioning needs prior to overnight hike, personal hygiene issues/needs, participation in overnight hike
Special Education/vocational transition: partnership development/support networking with non-handicapped peers, inclusion of volunteer fire-fighters/student first responders
Career and Technical Education:
  Nutrition and wellness: food safety and preparation on the trail, nutritional needs for energy expenditure, emergency preparation
  Hospitality and Tourism: development of trail support projects (ongoing trail angel project, trail feed)
  Information Technology and Computer Science: web page design for AASIS project AT connections, power point presentation for AASIS scholars

LEARNING OBJECTIVES
Students will be able to:

- learn about the dominant settlement periods of the Southern Appalachian region.
- learn about the evolution of mountain pathways to early settlement to eventually, the Appalachian Trail.
- prepare for and gather necessary materials for individual survival during day hike and a two day hike and overnight camp.
- gain knowledge of the challenges of backpacking on the Appalachian Trail (in and out 8 mile day hike; 12.5 overnight trip with 4.5 miles day one and 8 miles on day two).
- experience the isolation and need for comfort/support/information that through hikers experience in hiking this difficult stretch of the Appalachian Trail in Craig County.
- increase environmental threats and stewardship understanding.
- set up their own campsite.
- prepare meals over an open flame (backpacker stove) for dinner and breakfast.
- support each other in a group setting under challenging circumstances.
- serve others that travel through our community on the AT.
- reflect, document and share these experiences with others interested in the trail.
- plan and implement a support event for through hikers in our area.
CLASSROOM MEDIA COMPONENTS

- Appalachian Trail Conservancy - www.appalachiantrail.org
- A Trail to Every Classroom Summer Institute (July 10-14, 2006 at the National Conservation Training Center, Shepherdstown, West Virginia) - contact Rita Hennessy at rita_hennessy@nps.gov
- Jefferson National Forest – Woody Lipps, USDA Forest Service, 210 Franklin Road SW, Roanoke, Virginia 24001
- Damascus Trail Days www.traildays.nstemp.com/
- Through Hiker Guest Speaker, Ksenia Brazhnik
- Web design and Movie Maker Production
- Digital Camera
- Video Camera
- Smart Board
- PC with Projection set-up
INSTRUCTIONAL UNIT OUTLINE - - Instructional Unit designed for AASIS Scholars monthly class (November-May), with a day-hike held on the 2nd Saturday in November and an overnight backpacking trip held the first weekend in March and the service-learning project conducted in May. Note each “class” is a 90-minute block

AASIS Class 1 and 2 (November/December AASIS Scholars Class)

Connecting to the Trail: AT Orientation, Day-hike and Backpacking Trip, Service Learning Project and Through Hiker Support Event

1. Introduce Appalachian Trail History through surfing the Appalachian Trail Conference Web Site and browsing Appalachian Trail documents.
3. Gain commitment from students to walk the Craig County portion of the AT and to conduct an AT service project.
4. Explore the Damascus Trail Days Web Site, White Blaze Web Site and other through-hiker web sites; brainstorm service project/event.
5. Review equipment needs and discuss what is available for loan from the Giles County 4-H outdoor adventure equipment bank.
6. Introduce and discuss equipment needs for November’s “day-hike” to Dragon’s Tooth (northern AT terminus in Craig County). This section is lead by the AASIS Alumni.
7. Overview reflection formats and outline reflection assignments.

Student Actions:
- Secure and Organize Project Binder, collect documents related to the AT.
- Obtain Trail Maps for the AT Section in Craig County and supporting topography maps/forest service maps/VDOT maps.
- Discuss project with parents/guardians and return day-hike “trip permission” forms.
- Investigate Damascus Trail Days, other “trail town” events and “trail angel” activities. List possible support/service activities for the AASIS scholars service project.
- Inventory personal hiking/back-packing equipment, list items for purchase, list items to borrow.
- Prepare for day-hike and participate on trip.
- Develop reflection from day-hike and prepare format for future reflection assignment.
AASIS Weekend Field Trip (2nd Weekend in November)

AT Day-hike Trip to Dragon’s Tooth

1. Students and Adult Leaders day-hike on the AT to visit the northern terminus of Craig County’s section of the AT.
2. ATC personnel/Roanoke Trail Club volunteer provides an overview of the trail section and guides the trip.
3. Connecting to the Appalachian Trail - A Place Based Education Experience. The trip serves as the “first steps” toward the planning and implementation of the AASIS Trail Angel service projects and events.

Student Actions:
- Have ready Project Binder, collect documents related to the Dragon’s Tooth section hike of the AT.
- Obtain brochures and written materials for this “highly traveled” AT day-hike section.
- Discuss project with parents/guardians.
- Investigate other day-hike brochures/guides. List possible support/service activities for the AASIS scholars service project.
- Inventory personal hiking equipment, list items for purchase, list items to borrow.
- Prepare for day-hike and participate on trip.
- Develop reflection from day-hike.
AASIS Class 3 *(January AASIS Scholars Class)*

**Nutrition and Wellness on the Trail Food and Hydration Demonstration Foods Lab:**
**Packing the k-C and H₂O**

1. Food and Water Safety Overview.
2. Wilderness Food Preparation Demonstration. This section is lead by the AASIS Alumni.
3. Conditioning Your Feet and Body for the Trip. Provide step meters for each student and begin “tracking” steps on the AT Wall.
4. Wilderness First Aid Kit Demonstration.

**Student Actions:**
- Have ready Project Binder, collect documents related to the backpacking nutrition, hydration, physical conditioning and first aid.
- Plan weekend backpacking trip menu.
- Obtain food and hydration storage/preparation items for the AT backpacking trip.
- Develop food collection list (collect/pack these the week prior to trip).
- Discuss project with parents/guardians.
- Investigate winter/early spring alpine area wilderness brochures/guides. List possible support/service activities for the AASIS scholars service project.
- Inventory personal backpacking and first-aid equipment, list items for purchase, list items to borrow.
- Begin conditioning for overnight trip and participate “tracking steps” on the AT Wall.
- Develop reflection from January class and January/February conditioning activities.
**AASIS Class 4 (February AASIS Scholars Class)**

**Leave No Trace Training and Equipment Need on the Trail**

1. Leave No Trace Lesson with focus on Alpine Area during late winter/early spring conditions.
2. Distribute Packs, Sleeping Bags/Pads, Tents, Mess Kits, Stoves and Water Purifiers and Demonstrate No Trace Set-up.
3. Discuss Winter Camping Requirements.
4. Stress the need to follow the weather forecast and pack accordingly!

**Student Actions:**
- Have ready Project Binder, collect documents related to the Leave No Trace practices and winter/early spring camping requirements.
- Practice equipment set-up and pack for the trip.
- Obtain food and hydration items for the AT backpacking trip.
- Collect/pack food and hydration the week/day prior to trip.
- Discuss project with parents/guardians.
- Investigate through hiker packing requirements. List possible support/service activities for the AASIS scholars service project.
- Pack personal back-packing equipment and first-aid equipment
- Continue conditioning for overnight trip and participate “tracking steps” on the AT Wall.
- Develop reflection from February class and February conditioning activities
AASIS Class 5  *(March AASIS Scholars Class)*

**Trip Physical and Social Geography Orientation**

1. Review Topography and Terrain of the AT Section for the overnight trip.
2. Discuss the hiking techniques for technical terrain.
3. Highlight the history of the AT establishment in our area, reflect on those who lived in the area.
4. Arrange for Native American interpreter through Explore Park for “on the trail” lesson.

**Student Actions:**

- Have ready Project Binder, collect documents related to the settlement patterns in Craig County and in the areas that the AT crosses.
- Review maps and practice orienteering skills.
- Finalize collection of food and hydration items for the AT backpacking trip.
- Check pack and ensure proper packaging of food and hydration the day prior to trip.
- Discuss project with parents/guardians and return “trip permission” form.
- Investigate technical elements of the terrain on the trip section of the AT. List possible support/service activities for the AASIS scholars service project.
- Check back-pack: ensure proper storage of food/hydration, equipment and first-aid equipment the day prior to trip.
- Continue conditioning for overnight trip and participate “tracking steps” on the AT Wall.
- Develop reflection from March class and conditioning activities.
AASIS Weekend Field Trip (*1st Weekend in March*)

Two-day AT Backpacking Trip

1. Students and Adult Leaders Backpack on the AT for a two-day wilderness adventure.
2. Native American interpreter provides an overview of life along this path and in this area prior to 1700’s. An overview of Native American culture, survival, and European immigration is given to provide students with a foundation of the history of the area.
3. Connecting to the Appalachian Trail - A Place Based Education Experience. The trip is a “continued steps” action in planning and implementing the AASIS Trail Angel service projects and events.

Student Actions:
- Have ready Project Binder, collect documents related to through hikers experiences in Craig County’s section of the AT.
- Come prepared for the overnight!
- Discuss project with parents/guardians.
- Investigate technical elements of the terrain on the trip section of the AT. List possible support/service activities for the AASIS scholars service project.
- Participate on the overnight trip and collect data for “tracking steps” in Craig County.
- Develop reflection from overnight trip.
AASIS Class 6 and 7  *(April and May AASIS Scholars Class)*

Trail Angel Service Project Planning

1. Review Service Project ideas of students; highlight service projects conducted by others for AT hikers.
2. Discuss the May Trail Feed event.
3. Form action teams to prepare for trail feed event.
4. Develop action agendas for teams.
5. Arrange for trail feed food/equipment, PR, workers and facilities.

Student Actions:
- Have ready Project Binder, collect documents related to trail feeds and service projects.
- Review team assignments and perform collection needs.
- Finalize collection of food and equipment for the AT Trail Feed.
- Discuss project with parents/guardians and return “trip permission” form.
- Continue “tracking steps” on the AT Wall.
- Develop reflection from April class and “tracking steps” activities.
AASIS Trail Angel Trail Feed *(Memorial Day Weekend in May)*

Service Project for Trough Hikers, Section Hikers and Day Hikers

1. Students and Adult Leaders Provide a Trail Feed on the AT on Memorial Day.
2. Connecting to the Appalachian Trail - - A Service Learning Experience. The service project is a “continued steps” and “connecting to the hikers” action in planning and implementing the AASIS Trail Angel service projects and events in Craig County.

Student Actions:

- Have ready Project Binder, collect documents related to donors/suppliers/cost of the trail feed items.
- Come prepared for the trail feed - - bring your team’s food/beverages/equipment items!
- Discuss project with parents/guardians.
- Investigate “trail angel” and “trail feed” food and support needs. List possible support/service activities for the future AASIS scholars service project.
- Participate in the trail feed and collect data for “tracking steps” and “connecting to the hikers” in Craig County.
- Develop reflection from service project.
Next Steps
The Craig County AASIS Scholars are planning:

- On-going trail maintenance and “trail angel” service projects;
- A Trail Awareness Community Event at Fall Festival;
- Continue the trek through Craig County on the AT, and begin plans for hiking sections within VA and the border communities of NC/TN/WV/MD;
- Coordinate a training seminar for AASIS Teachers Network;
- Connect to schools within the “A Trail to Every Classroom” network;
- Send a team to the next “A Trail to Every Classroom Summer Institute”;
- Formalize an AASIS Alumni presence at Craig County High School to mentor future scholars and continue outdoor adventure activities.

COMMUNITY CONNECTIONS
Real-world actions students can take to follow through on lesson concepts. These include activities such as:

- Interviews and guest presentations with AT hikers and AT adjacent landowners;
- AT community-based art project - Connecting to the Appalachian Trail Quilt;
- “Hit the Wall and Keep On Hiking” an Craig County AT Trail Angels – Trail Feed Event;
- Craig County Appalachian Trail Angels Hosted Website;
- Craig County Appalachian Trail Angels Hiking Brochures and Guided Hikes offerings;
- Writing, photo, video and sketch portfolios.
- Letter or email writing to media, relevant governmental agencies, non-governmental agencies, academic, civic or business groups.