Planning First to Make Your Outdoor Classroom Last

A Best Management Practices (BMP) Guide for Creating and Sustaining Outdoor Classrooms in Georgia

Developed as part of the Urban Conservation and Education Initiative (UCEI)

GEORGIA WILDLIFE FEDERATION

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Georgia Wildlife Federation (GWF) and Partners

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Georgia Outdoor Classroom Council
National Gardening Association
National Wildlife Federation®

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Participating UCEI Schools and Partner Organizations

The following schools and organizations teamed up to participate in the Schoolyard Ecology and Greenspace Symposium on September 10, 2004. They are largely to be credited for generating much of the content of this guide. They are also to be commended for committing to phase two of UCEI in 2005 by implementing the practices in this guide in order to become model outdoor classroom schools.

Barnwell Elementary
Fulton County Schools
Partnered with:
Chattahoochee River Recreation Area (U.S. National Park Service)

Bryant Elementary
Norton Park Elementary
Cobb County Schools
Partnered with:
Georgia Environmental Organization (GEO)

City Schools of Decatur
Partnered with:
Oakhurst Community Garden Project

DeKalb Alternative School
DeKalb County Schools
Partnered with:
EcoWatch AmeriCorps
Stone Mountain Memorial Assoc.

Dunwoody Springs Elementary
Fulton County Schools
Partnered with:
Keep Sandy Springs-North Fulton Beautiful

East Jackson Middle School
Jackson County Schools

Gainesville City Schools

Huntley Hills Elementary
DeKalb County Schools
Partnered with:
National Wildlife Federation (Habitat Stewards™ and Community Habitat Program)

L.O. Kimberly Elementary
Atlanta Public Schools
Partnered with:
City of Atlanta, Dept. of Watershed Management

Mount Yonah Elementary
White County Schools
Partnered with:
GA Mountain Regional Development
Sautee-Nacoochee Community Org.

North Springs High School
Fulton County Schools
Partnered with:
Keep Sandy Springs-North Fulton Beautiful

Northside Middle School
Houston County Schools

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GWF Mission Statement

"To encourage the intelligent management of the life-sustaining resources of the Earth-its essential water resources-its protective forests and plant life-and its dependent wildlife-and to promote and encourage the knowledge and appreciation of these resources, their interrelationship and wise use, without which there can be little hope for a continuing abundant life."

-Georgia Wildlife Federation, 1936

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www.gwf.org

Appendix A: Additional Outdoor Classroom Resources

Georgia Outdoor Classroom Council (OCC)
www.eealliance.org/occ%20symposium/about_occ.htm
OCC, a subcommittee of EEA (see below), is a coalition of organizations and individuals sharing an interest in the design, development, maintenance and use of outdoor classrooms. Its mission is to serve teachers, parents, principals and community volunteers as a resource link, providing up-to-date training and literature. Each year, the OCC organizes an annual symposium aimed at helping schools develop and use their school property as a teaching area.

The Environmental Education Alliance of Georgia (EEA)
www.eealliance.org
EEA works to promote environmental education by providing opportunities for member organizations, schools, and the general public to get involved through the annual EEA conference, member newsletter, environmental events posted on its Web site, and teacher resource directory.

The Online Guide to Environmental Education in Georgia (EEinGeorgia.org)
www.EEinGeorgia.org
A website designed to build statewide capacity for environmental education by providing: environmental education (EE) lesson plans based on Georgia's Performance Standards (GPS), a searchable directory of Georgia's EE providers and the resources they offer, a statewide calendar of EE events, EE news and easy-to-access facts about Georgia's environment.

Georgia Schoolyard Wildlife Habitats Planning Guide
www.gwf.org/swhguide.htm
Download this free GWF "how-to" guide on the nuts and bolts of outdoor classroom construction, specially designed for Georgia's eco-systems.

Schoolyard Habitats® Program
www.nwf.org/schoolyardhabitats/educatorresources.cfm
National Wildlife Federation offers curriculums, planning guides, grants and other resources for turning schoolyards into wildlife habitat.

EIC
www.eeingeorgia.org/eic
"Using the Environment as an Integrating Context for Learning" is a school improvement process developed by the State Education and Environment Round Table (SEER). According to SEER's nation-wide study, EIC results in improved academic achievement, classroom behavior and instructional practices. In Georgia, teams of teachers, administrators, community organizations representatives and EIC coaches are selected and trained to implement the EIC Model in their schools.

Appendix B: Possible Sources for Volunteers, Donations and Funding

Sources of (Free) Resources:

- Native Plant Rescue Groups
- Native Plant Societies
- Local Garden Clubs
- Memorial Donations
- School Maintenance Department (Plants, Tools, or Labor)
- Corporations (Interns, Employee Volunteers, and Services)
- Partners in Education
- Eagle Scouts
- Local Civic Groups
- University Landscape Architecture and Design Programs
- Local nurseries
- Vocational Schools/Horticulture Programs
- Master Gardeners (Extension Service)
- Habitat Stewards (National Wildlife Federation)

Sources of Funding:

- Community Organizations
- Civic Organizations
- Community Philanthropists
- Parents
- Environmental Organizations and Foundations
- Local Chamber of Commerce or Business Associations
- Corporate Sponsorship

Community and Volunteer Groups:

- Parents
- AmeriCorps
- Corporate Volunteer Groups
- Adopt-a-Stream and other citizen science initiatives
- National Parks Service
- 4-H
- Local Military (Volunteer Labor on Larger Projects)
- Outdoor Enthusiasts Clubs
- Home Owners and Neighborhood Associations
- Local Businesses
- Churches
- Scouts
- High School & College Students, Student Service Groups
- Retirees
- Master Gardeners
- Habitat Stewards
- Master Naturalists
- Extension Service
- Local Media
- Garden Clubs
- Junior League

Appendix C: Recommended Resources for Habitat and Natural Gardening

The Natural Habitat Garden by Ken Druse and Margaret Roach. 1994. Hardcover, 248 pages. Through 500 color photographs, *The Natural Habitat Garden* introduces readers to 35 gardens that re-create the naturally balanced plant communities found in each of the four main botanical habitats. Druse helps to define a new horticultural aesthetic while showing gardeners everywhere how they can recreate the natural havens for birds, butterflies and other wildlife that once made America beautiful. Includes full-color photographs.

Butterfly Gardening for the South by Geyata Ajilvsgi. 1990. Hardback, 342 pages. A must-have for the butterfly gardener, *Butterfly Gardening of the South* features profiles of 50 southern butterflies and their host and nectar plants. The profiles are detailed and informative and the photos are exquisite. Also includes garden designs and butterfly-friendly pest controls.

Southeastern Wildflowers by Jan W. Midgley. 1999. Paperback. Excellent information on identifying and gardening with our native wildflowers. Descriptions also include propagation tips and benefit for wildlife.

Attracting Birds To Southern Gardens by T. Pope, N. Odenwald and C. Fryling. 1993. Hardcover, 164 pages. With its unique climate, soil and a longer growing season, the South gives its gardeners a singular opportunity to combine the two most popular outdoor activities in the US: gardening and birding. Covers garden habitats, seasons, bird and plant dictionaries and resources. Over 300 full-color photos.

Attracting Birds, Butterflies and Other Backyard Wildlife by David Mizejewski, National Wildlife Federation Backyard Wildlife Habitat® Program. 2003. Paperback, 128 pages. This resource will be of use to teachers and others in developing habitat projects at school and at home, providing in-depth information about applying wildlife-friendly gardening techniques and creating basic habitat elements to any size yard or garden. Features illustrated projects, checklists and native plant information and 170 color photos of certified habitat landscapes and backyard wildlife.

Gardening with Native Plants of the South by Sally & Andy Wasowski. 1994. Hardback, 196 pgs. The large number of photographs and Sally Wasowski's fun, conversational writing style combine to make *Gardening with Native Plants of the South* a terrific, reader-friendly primer on native southern plants. Look to this book for creative garden designs and easy-to-read plant profiles complete with lists of companion species and notes on wildlife usage.

Landscaping With Wildflowers: An Environmental Approach to Gardening by Jim Wilson. 1993. Paperback. A practical guide to the newest trend in gardening by the star of The Victory Garden. Gardeners concerned with conserving nature are increasingly interested in growing wildflowers and saving or recreating natural landscapes. Wilson shows how to incorporate wildflowers into gardens in every part of the country. 100 color photographs.

Natural Gardening by John Kadel Boring (Editor), Erica Glasener, Glenn Keator, Jim Knop, R.J. Turner (Editor). 1996. Hardcover. This richly illustrated, informative guide to gardening explains how to create a welcoming habitat for a wide variety of wild creatures through the use of an environmentally friendly collection of native vegetation.

Landscaping with Nature: Using Nature's Designs to Plan Your Yard by Jeff Cox, Marilyn Cox (Contributor). 1996. Paperback. A garden transformation workbook, this text teaches readers a new way to garden--by working with nature to design a landscape. Detailed instructions for using nature's patterns or color schemes in a garden design, gardening for wildlife, landscaping with stones and/or water and using native plants are combined with basic instruction. 80 color photos. 75 illustrations.

Natural Landscaping: Gardening with Nature to Create a Backyard Paradise by Sally Roth. 1997. Hardcover, 256 pages. Showing readers how to create their own woodland gardens, shade gardens, wildflower meadows, prairie gardens and songbird gardens, *Natural Landscaping* is packed with real-life examples, garden plans, colorful combinations, at-a-glance plant charts and more. Includes regional coverage and plant recommendations. 250 color photos.

Recommended Resources for Habitat and Natural Gardening (Continued) Web site and Online Resources

Georgia Wildlife Federation <www.gwf.org> Guides for creating a Backyard Wildlife Habitat, Schoolyard Wildlife Habitat Planning Guide, lists of workshops and classes, related articles, grants, and contacts to find volunteers for your project.

KidsGardening <www.kidsgardening.com> Tips for students, parents, and teachers who spend time in the garden.

Evergreen <www.evergreen.ca> Canadian site promotes healthier and greener homes, schools and communities, including a participant registry.

Adventures in Birding <www.birdingadventuresinc.com> Atlanta-based ornithologist and educator provides excellent information on bird watching, attracting birds to your garden, and creating a habitat.

American Horticultural Society <www.ahs.org> Provides a wealth of information and resources on all topics having to do with gardening, including a whole Youth Gardening section.

Georgia Native Plant Society <www.gnps.org> Promotes the appreciation and use of native plants and habitats; site lists meetings, garden tours and activities, and reputable native plant sources.

Georgia Perimeter College Botanical Garden Wildflower Center of Georgia
< www.gpc.edu/~ddonald/botgard/george3.htm > Features photos from the garden and information on the college's free lecture series on native plant topics.

Carolina Gardener Magazine < www.carolinagardener.com> Monthly publication offering a variety of gardening topics.

Floating Habitats <www. members.aol.com/Tjacmc/index.html> Floating Habitats for ponds and lakes—construction plans and use instructions.

National Wildlife Federation <www.nwf.org/backyardwildlifehabitat> Information and certification forms for your wildlife habitat; also offers a variety of education materials and a registry of participating schools.

National Gardening Association < www.garden.org> Interactive database of gardening articles, how-to tips and ideas, and dictionary.

Lady Bird Johnson Wildflower Center www.wildflower.org> A clearinghouse promoting native plants through education programs.

Native Plant Conservation Initiative < www.nps.gov/plants> Technical information of native plants and current conservation issues.

USDA PLANTS Database <plants.usda.gov> The PLANTS Database is a single source of standardized information about plants, featuring state plant checklists, and plant profiles; also information on native plants, exotic invasives, and wetlands plants.

Wild Ones Natural Landscapers, Ltd <www.for-wild.org> Landscaping using native species in developing plant communities—educational materials, grants and conference announcements.

Appendix D: Outdoor Classroom Needs & Interests Survey for Teachers

Dear Teachers,
Our school is designing an outdoor classroom. This will be a place outside in the schoolyard that has been enhanced for educational purposes. An outdoor classroom can take many forms. For example, it could be a garden to study life cycles, a quiet place to inspire writing, a civics project about land use, a simple building project that uses geometry or all of the above! In other words, an outdoor classroom is a teaching tool, much like a computer, that can be used in many different ways.

Please fill out the following **2-page survey** and return it to _____ by this date_____so that we can best meet your needs with our design.
****

On a scale from 1 to 5, rate how comfortable you feel about using an outdoor classroom with respect to the following issues. Please explain by making any comments or suggestions.

Issue	**Uncomfortable**		**Don't Know**		**Comfortable**
Student Safety	1	2	3	4	5
Explain:					
Travel Time to Outdoor Classroom	1	2	3	4	5
Explain:					
Teaching My Subject Outdoors	1	2	3	4	5
Explain:					
Maintaining Control of My Class	1	2	3	4	5
Explain:					
Feeling Physically Comfortable Outside	1	2	3	4	5
Explain:					
Knowledge About the Natural World	1	2	3	4	5
Explain:					
Other:	1	2	3	4	5
Explain:					

(Continued on Next Page)

On a scale from 1 to 5, rate how important or useful the following items would be to you in utilizing an outdoor classroom. Please explain by making any comments or suggestions.

Item	Not Impt/Useful		Don't Know		Impt/Useful
Training on How to Use Outdoor Classrooms to Teach My Subject	1	2	3	4	5
Explain:					
Extra Chaperones for Taking Students Outside	1	2	3	4	5
Explain:					
Service Learning Opportunities for Students	1	2	3	4	5
Explain:					
Curriculums and Activities for Use in the Outdoor Classroom	1	2	3	4	5
Explain:					
Relevant Information and Resources About Nature	1	2	3	4	5
Explain:					
Outdoor Classroom Safety Protocol	1	2	3	4	5
Explain:					
Outdoor Seating/Tables	1	2	3	4	5
Explain:					
Other:	1	2	3	4	5
Explain:					

Please circle the features of an outdoor classroom that you would be most likely to use (can be more than one): nature trail vegetable garden wildlife habitat garden arbor weather station meadow compost or recycling area wildlife feeders (e.g., bird) gazebo accessible gardens wooded area flower garden pond/water feature

Thank you for taking the time to fill out this survey! If you are interested in helping to design the outdoor classroom, please write your name and contact information below.

_____

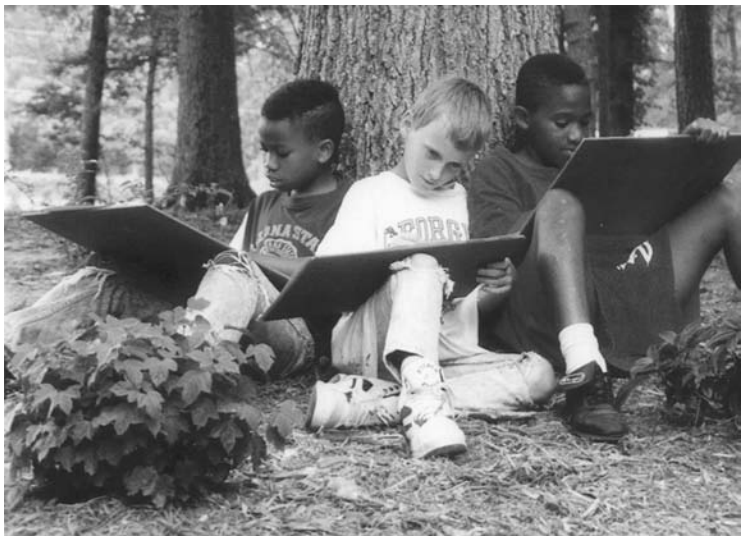
Name Phone/Email

Appendix E: Curriculum Connections Chart

List objectives that you teach, then brainstorm ways that you can teach those objectives in the outdoor classroom.

Performance Standard	Strategies for Teaching Objective in Outdoor Classroom

Chapter 1: An Introduction and Overview of UCEI



The Urban Conservation and Education Initiative (UCEI) is a multi-phased Georgia Wildlife Federation (GWF) initiative **to improve and increase the number of schoolyard wildlife habitats in Georgia**. GWF has assisted in creating schoolyard wildlife habitats, also commonly referred to as "outdoor learning labs" or "outdoor classrooms," since 1989. GWF defines all of these terms as any outdoor space that has been enhanced for the purposes of study. As an organization that focuses on wildlife issues, GWF also strongly promotes creating habitat (food, water, shelter and space to raise young) on school grounds. However, because some of the data GWF used was unspecific in regards to the focus of wildlife habitat, we have opted to use the more general term "outdoor classroom" in this guide.[1]

Using UCEI as a method to assess and improve our services in this regard, GWF has undertaken the review **of 15 years of statewide outdoor classroom data** to find out where outdoor classrooms exist and how they have succeeded or failed in turning schoolyards into effective teaching tools and sustainable habitat for wildlife. Compiling this data, GWF then hosted the Schoolyard Ecology & Greenspace Symposium[2] on September 10, 2004 to share the findings and to get input from experienced and interested participants in a variety of county and school settings.

This guide is **a synthesis of GWF's research and the consensus reached by symposium attendees** during intensive breakout sessions surrounding the best management practices (BMP) for outdoor classrooms in Georgia. Attendees were required to register in teams. These teams were composed of diverse individuals focused around an outdoor classroom project at a school. Teachers, parents, administrators, maintenance staff, community volunteers, students and public land managers joined together to form twelve four to five member teams representing thirteen schools.[3]

These teams continue to be supported by GWF as they work to implement the practices from this guide. These schools will act as **regional examples** to others who are interested in creating successful outdoor classroom programs that last.

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[1] Common outdoor classroom features that do promote wildlife habitat are butterfly gardens and bird houses. Some examples of outdoor classrooms that may not include wildlife habitats are weather stations or sundials.
[2] Proceedings for the symposium are available on the GWF Web site www.gwf.org
[3] Refer to the section entitled "Participating UCEI Schools and Partner Organizations".

Chapter 2: "Why Do I Need This BMP Guide?"

In early 2004, GWF reviewed **nearly 2000 records** of outdoor classroom requests for certification or funding in Georgia between 1989 and 2003. While this is an impressive number of outdoor classroom projects, follow-up inquiries into the current status of these projects presented a troubling trend. Focusing on 55 target counties,[4] GWF surveyed 68 randomly selected schools[5] by phone or fax. Of the 46 responses received**, 41% of the schools** no longer had active outdoor classroom programs. Still other schools reported that their outdoor classroom was active, but used on an infrequent basis. Finally, GWF found that **84%** of the defunct outdoor classrooms **failed by their second year**, while in stark contrast those with **active programs** had been established an average of **eight years**.[6]

Top 5 Reasons Listed by Schools on Why Outdoor Classrooms Fail

1. Continued maintenance and upkeep
2. Teachers unsure or unable to incorporate usage into lessons
3. Inadequate funding
4. Vandalism (especially at high school level)
5. School expansion or relocation

Top 5 Reasons Listed by Schools on Why Outdoor Classrooms Succeed

1. Community support
2. Student involvement
3. Funding
4. Teacher training
5. Administrative support

Source: GWF survey, 2004.

Given the amount of time and resources invested in these outdoor classroom projects, it is troubling that so few seem to attain long-term sustainability. This guide is designed to combat this trend. Starting with the **most frequently listed reasons** for outdoor classroom failure or success gathered from the school surveys, GWF asked the teachers, parents, community volunteers, students, environmental education organizations, school maintenance staff and public land managers gathered at the Schoolyard Ecology and Greenspace Symposium to list what they thought were the **best management practices (BMP)** to promote success and avoid the common failures of outdoor classrooms. The BMP listed in this guide are the fruits of that effort.

It is our hope that this guide will help outdoor classroom enthusiasts **avoid common pitfalls and promote outdoor classrooms that are both long-term effective teaching tools and sustainable**

[4] UCEI was originally designed to partner with the Georgia Community Greenspace Program (GCGP), an initiative put forth by then Governor Roy Barnes to encourage Georgia's most rapidly developing counties to designate 20% of their landholdings as permanent greenspace. At the time UCEI was designed, 55 counties were participating in GCGP. Through UCEI, GWF hoped to encourage public land managers in these counties to consider school grounds as potential greenspace holdings, bringing county resources to schools and saving county funds by re-designating already publicly held land. For this reason, research for UCEI focuses on these 55 urban counties. However, GCGP funding was phased out in 2003 and UCEI, while based on these 55 counties, has expanded to include other counties not originally involved in GCGP.

[5] One school was selected per school system in the 55 target counties. The schools were selected by using a random number generator.

[6] For a more complete explanation of GWF's research on outdoor classrooms, please refer to Amanda Kail's presentation in the symposium proceedings listed on the GWF Web site www.gwf.org or contact GWF at education@gwf.org or 770-787-7887.

habitat for Georgia's wildlife. While many teachers and volunteers are often eager to "get their hands in the soil" as quickly as possible, GWF urges that some careful planning be completed **before** investing significant amounts of time, energy and money on outdoor classrooms. We also urge educators to remember that taking students outside to explore the pre-existing schoolyard is already available and free of cost. Students themselves can begin their outdoor classroom experience by helping with the planning, such as site surveys and research on local wildlife as a class project.

This guide is designed to give **general advice about creating outdoor classrooms that are effective and sustainable**. It is more than a general planning guide, encompassing issues that stretch **beyond** how to build a bluebird box or where to place a butterfly garden. For more specific information on how to build an outdoor classroom, please see Appendix A.

Chapter 3: Starting Where You Are

When you decide to create an outdoor classroom, it is very important to start where you are. In other words, find out what you've got to work with, what your needs will be and what resources are already available to you.

Here is a suggested checklist of where to start:

Assess Already Existing Outdoor Classroom Possibilities

- **Remember that teaching students outside is already available at no cost!**

- Is there a **natural area** on or close to the school grounds, such as a stream, meadow or wooded area?

- Are there **pre-existing garden beds** that are not being used or could be used by students to create habitat gardens?

- Does the school own **equipment** for outdoor study, such as hand lenses, aquatic or insect nets and clipboards?[7]

Assess Needs and Interests of All Potential Outdoor Classroom Users

- Make a list of who the **potential outdoor classroom users** are and how to best assess their needs and interests. Be sure to include: teachers, students, school administration, after-school coordinators, parents, volunteers, community members and wildlife.

[7] Students themselves can inexpensively construct many of these pieces of equipment. For example, they can collect pieces of corrugated cardboard to use as clipboards and use rubber bands to secure their papers. Georgia Adopt-A-Stream has directions for making nets and kick seines in their "Biological & Chemical Stream Monitoring Manual" available for download at http://riversalive.org/AAS_manuals.htm. A little creativity or a quick search on the Internet will probably provide the directions for constructing most of what you need at little or no cost.

- Survey all **teachers** to find out their needs and levels of interest in outdoor classrooms. What do teachers at your school really need to feel confident in using an outdoor classroom? What features or training would be the most useful for teaching outside? What would prevent them from using an outdoor classroom?[8]

- Survey all **students** to find out what they would like to see in an outdoor classroom. This can be done as a class activity that can easily fit performance standards for language arts (e.g., writing a description), math (e.g., charting and calculating areas), science (e.g., creating habitat, plant and soil cycles) and many other academic areas.

- Ask your **principal** what his or her concerns would be for an outdoor classroom. Liability issues, maintaining certain standards of school appearance and making sure academic requirements are met are common school administrative issues. Be sure to address these concerns from the onset of your project to help ensure administrative support.[9]

- Be sure to get feedback from any students or teachers who may have **special needs**. Involving people with special needs and various abilities in the planning process of your outdoor classroom can help ensure that it is as accessible as possible. A teaching tool is no good if everyone can't use it![10]

- Find out about any needs or requirements from your **local community,** such as zoning, community beautification efforts or outdoor recreation areas, such as walking trails for the elderly.

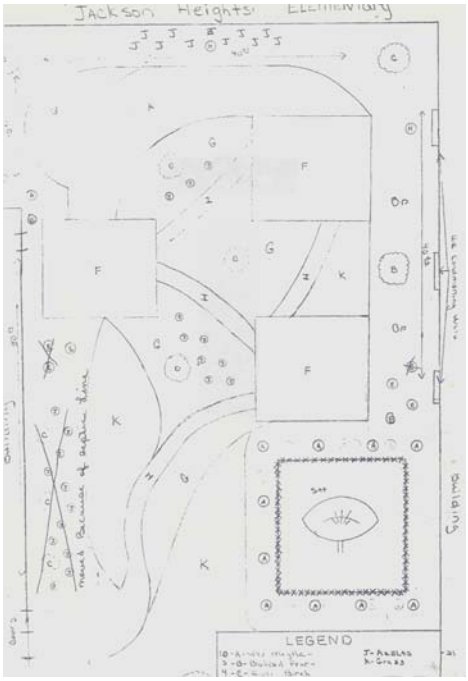
- Find out what **wildlife** is native to your area and what is required to provide their appropriate **habitat**.[11] Remember that many types of wildlife, such as birds and some insects, are migratory and may only be seen during certain times of the year. Contact your local nature center or environmental education provider to find out more about local wildlife. **Surveying** the school grounds for different kinds of plants and animals is also an activity that is **easily adaptable for student lessons**, whether through art (sketching), language arts (journaling), math (counting/charting) or science (identifying/classifying).

[8] See Appendix D "Outdoor Classroom Needs and Interests Survey for Teachers".
[9] See chapter 5 "Getting Buy-In" for more ideas about soliciting support from these groups.
[10] For more information on creating accessible outdoor classrooms, visit National Wildlife Federation's Web site at www.nwf.org/schoolyardhabitats/accessible.cfm.
[11] Georgia Wildlife Federation maintains a native plant and animal database at www.gwf.org.

Site Inventory

- Because there are many aspects of your school grounds to inventory, **divide up the work** between different sub-committees or grade levels. Remember that students can gather much of this information as a class activity.

- Create one **central site inventory map** or several that note separate features. If you choose to have several maps (e.g., one from each committee or class or one for each area or item to survey) copy them onto transparencies so that they can be laid over each other to show one complete picture at the end. All maps should have the same basic map of the school grounds as a reference point.[12]



- Begin with a **map of the school grounds** that includes **all pre-existing hardscapes,** such as buildings, paved roads and walkways.

- Obtain maps of **master plans** or **projected construction plans** for your school to make sure you do not put your outdoor classroom on the site of a future building, trailer or parking lot!

- Obtain maps from school maintenance staff about **locations of underground cables, wires and pipes**.

- Contact your local "**Call Before You Dig**" program to find the location of any other hazards that may exist underground at your school.

- Locate **north, south, east and west** on your maps. Areas that have a southern or western exposure to the sun tend to get the most heat and light. Northern exposures get the least. Also, **weather patterns** tend to move consistently in one direction. In Georgia, wind, and thus precipitation, tends to move from west to east. Mapping directions, along with mapping your watershed, sun/shade and soil quality will help you plant the right plant in the right place.

- Map your school **watershed**. Find out where run-off from buildings and paved areas collect. Find out which areas drain quickly or are very dry.[13]

- Monitor and map areas and hours of **sun and shade** in the schoolyard. Be sure to note time and season.

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[12] The article "School Grounds in a Box: Model-making and Design" by Ann Coffey (from Greening School Grounds; Creating Habitats for Learning (2001), New Society Publishers and Green Teacher) provides excellent step-by-step instructions on constructing a multi-level model for outdoor classroom design.

[13] For more information about how to map your watershed, or about watersheds in general, please go to the Georgia Adopt-A-Stream publication "Getting To Know Your Watershed Manual" available to download from the Web site www.riversalive.org/AAS_manuals.htm.

- Assess and map the **soil quality** in the areas you would like to locate gardens. Contact your local Cooperative Extension Service or garden supply center for information and tools on how to do this.

- Map **pre-existing walkways and paths**, even if they are "unofficial." Putting a garden where students usually walk will probably result in trampled plants!

- Map the levels of **slope** in possible outdoor classroom sites. Hills and rises will have better drainage for herbs, flowers and vegetables, but may be less accessible. Low areas may pond or remain "mucky" for longer than other areas, making them ideal for wetland gardens.

- Consider how **accessible** your outdoor classroom will be. Many teachers prefer a site that is close to the school building so that travel time is reduced. Putting an outdoor classroom far from a hard surface path may be too difficult to access for students with motor disabilities. Putting an outdoor classroom in a center courtyard may make it difficult for maintenance crews to haul necessary equipment to the site. Note the types of nearby paths, entrances to the site and distances from buildings to the areas you are considering for an outdoor classroom.

- Map **sources of water** that can be used for **irrigation**, such as spigots, sprinkler systems, downspouts, streams and ponds.

- Survey **pre-existing plants, trees and wildlife** that are seen on actual school grounds. Note what elements of habitat are already provided (e.g., a stand of mature oaks provide

food, shelter and spaces to raise young for squirrels, birds and insects). Try to identify as many specific types of wildlife as possible. Consult a plant or animal identification guide for your region or contact your local nature center, bird watching club or university environmental science program for assistance. Or, see National Wildlife Federation's on-line field guide www.enature.com.

- Map **nearby distractions**, such as noise or frequent activities that may disturb student while in the outdoor classroom.

- Map any **nearby hazards** or other safety concerns that should be avoided by students.

- Consider the **line of sight and vista** offered by your outdoor classroom. While an area next to the dumpsters may have the best conditions for a habitat garden, it may not inspire much appreciation for nature in others!

Gather General Information About Outdoor Classrooms

- Visit the **online guide to Environmental Education in Georgia** Web site www.EEinGeorgia.org to find local environmental education providers, programs, curriculums, lesson plans and other useful resources.

- Contact local environmental education providers or nature centers to find out if there are **other schools** in your area who have outdoor classrooms, as they may be willing to help "mentor" your team.

But most importantly…

Keep all information and subsequent information **centrally located and organized.** Create an **outdoor classroom binder or shelf** in your media center. Make sure this information **remains at your school** for **future outdoor classroom users** to access!

Chapter 4: Making A Plan

In the previous chapter, you gathered all the initial information that you should need for your outdoor classroom. You may find that additional information is needed in the later phases of the project, but now it's time to start planning for its design and use. **Be sure to plan for how you will use the outdoor classroom to teach or it may go unused!**

Keep It Simple

- **Plan** your outdoor classroom in **phases** with **realistic timelines**. Remain flexible enough to change your plans when necessary.

- Based on the information you gathered from surveying the various groups listed in chapter 3, **prioritize** the outdoor classroom components that are identified as the most popular or important.

- Develop **new areas** based on feedback and identified needs from what you are **currently** using**.**

- **Work on one area or aspect of the outdoor classroom at a time**. Remember that doing a site inventory is an excellent first project for your students and outdoor classroom committees. You will generate excitement and interest as they begin to see the possibilities of what their outdoor classroom will look like.

- Always leave **possibilities for future users** to add to the outdoor classroom. This will help generate future support and ownership. Students and volunteers feel the most invested in a project when they are allowed to "leave their mark" in some way.

- **Begin** your outdoor classroom program with a **simple project**, such as a small butterfly garden or studying an already existing natural area. There will be time to expand your project later when you feel that you have adequate support to do so.

Don't Do It Alone

- Brainstorm **a list of all the different types of skills and resources** you will need to make your outdoor classroom project happen.

- Recruit an **outdoor classroom team**. A cooperative effort between teachers, parents/PTA volunteers, maintenance staff, community volunteers, an administrative representative and local environmental education providers are vital to a successful team. Having a

diverse team will mean having diverse skills, resources and perspectives for your project. And, while quite often one or two people end up assuming leadership for an outdoor classroom, dividing up tasks into smaller, finite commitments will help you to delegate some of the work and make this project less overwhelming.

- **Designate a point person**. The point person doesn't have to do everything. He or she just needs to be able to coordinate activities and meetings and know where to point people who want to help with the outdoor classroom.

- **Rotate leadership positions annually** or on another regular and reasonable schedule. This will bring in fresh perspectives and keep your leaders from burning out.

- Work to achieve **buy-in from the entire school**. You may not be able to get every person involved, but seek to involve at least one representative from all aspects of the school community. Also, even if they are not directly involved in the outdoor classroom, addressing the concerns of others may help to bring them in gradually. Consult the chapter "Getting Buy-In" for more specific suggestions on how to do this.

- **Survey parents annually** to find out what skills and resources they would be willing to donate to an outdoor classroom project.

Going From Needs Assessments and Site Surveys to Design

- **Complete the needs assessment and site survey** from the previous chapter. The actual layout and physical characteristics of your schoolyard, along with the needs of the teachers, administrators, students and local wildlife will become the basis for your outdoor classroom design.

- Host a **teacher training** that will help ensure all teachers will know how to use the outdoor classroom, if they so choose.[14] It is more important that teachers know how to teach a lesson outdoors using the natural environment than to have a fully outfitted outdoor classroom that teachers are unsure of how to use.

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[14] There are several good multi-disciplinary environmentally based curricula with lessons designed to meet academic requirements. Commonly available curricula and teacher trainings are: Projects WET, Wild and Learning Tree, National Wildlife Federation's Schoolyard Habitats® Program and Georgia Conservancy's Native Seasons. Check the Web site www.EEinGeorgia.org for more information on curricula and trainings available in your area.

- Create a **curriculum team** to plan for how you will institutionalize the use of the outdoor classroom into your school's curriculum**.**[15] Remember that planning for the use of your outdoor classroom is as important as the actual design of the outdoor classroom itself.

- Keep school administrators and school district **planning and construction offices informed** of your plans to prevent future land-use conflict.

- Your **specific outdoor classroom design** should reflect the unique characteristics of your schoolyard and your school community. However, a few **key points** to keep in mind are:

    - How will habitat gardens be maintained through the **summer**?

    - Is what you are designing **interesting** enough to pique students' curiosity and **sturdy** enough to withstand their exploration?

    - Does your outdoor classroom provide at least some of the elements of **habitat** for wildlife: food, shelter, water and space to raise young? A plant that produces food, such as seeds, nuts or berries is less expensive, more reliable and better for wildlife, than a feeder made by humans.

    - **Native plants**, if placed in the right location, are often far hardier and **easier to maintain** than standard ornamental hybrids. They also provide more elements of **habitat** for native wildlife making them better for the environment.

    - Will you have the **future time, money and resources to maintain** the outdoor classroom you are designing?

    - Is your outdoor classroom **accessible** to all of your students, including not only students with physical disabilities, but also those with mental or emotional challenges, and English Speakers of Other Languages (ESOL) students?

    - How will the outdoor classroom **meet the needs** of your school's **teachers** to keep their students **safe, comfortable and on task to meet academic standards**?

    - Will your outdoor classroom meet the **standards for appearance** required by your school administrators?

> ***But most importantly***
>
> Design outdoor classrooms that encourage students to **explore and interact with the natural environment**. Create habitat gardens that appeal to different senses and allow for some "messiness" in the design. Children often prefer gardens that appear less formal and that contain diverse elements for them to explore.

[15] See Appendix E: "Curriculum Connection" for a worksheet to help guide you through using the outdoor classroom to teach performance standards.

Chapter 5: Getting Buy-In BEFORE You Build

Creating an outdoor classroom is often an exciting prospect to teachers, students and volunteers alike and many want to leap directly to the point of construction as soon as possible. However, because you want the time, money and effort you will invest in creating an outdoor classroom to be well spent, it is important to **generate support from the many users of outdoor classrooms from the very beginning of the project**.

Listed below are **key groups** to consider, as well as some **hints** on how to win their support.

Administrators

- Ask your school's administration about their **specific concerns** for having an outdoor classroom at their school. Keep them informed on how you will address these concerns.

- Create a **safety protocol**[16] for using the outdoor classroom in order to minimize liability concerns. Animal bites and stings, diseases such as West Nile virus and rabies and safety issues around water are common school liability concerns. **Learn the facts** about these concerns and inform administrators how you will address them.[17]

- Show your principal that an outdoor classroom is not just an "extra". Provide **examples of research showing** how an **outdoor classroom can improve academic performance** across disciplines. The State Education and Environment Roundtable (SEER) provides one of the most comprehensive studies to this effect.[18]

- If possible, try to get outdoor classroom plans incorporated into your **School Improvement Plan**.[19]

- Invite your **principal or other school administrators to observe a lesson taught outdoors**. In this way, he or she can be assured that **academic requirements** are being met and that you are confident in your abilities to teach outside. Even if they are unable to observe, principals will still be impressed that you are confident enough to invite them to observe.

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[16] Consult your school's already established protocols for student safety. Also, other organizations that conduct outdoor youth programs may have good examples of protocols to draw from. For example, Girl Scouts offers Safety-Wise at www.girlscouts.org/for_adults/leading_advising/ and Boy Scouts offers the online guide Guide to Safe Scouting at www.scouting.org/nav/enter.jsp?s=ba.

[17] The Center for Disease Control (CDC) has information on the risks associated with diseases such as West Nile and rabies on their Web site at www.cdc.gov. Also, contact your local Department of Natural Resources (DNR) non-game office to find more information about venomous animals found in your area and the actual level of risk they pose.

[18] Summaries of the study, Closing the Achievement Gap; Using the Environment as an Integrating Context for Learning (EIC), can be downloaded at www.seer.org.

[19] The Georgia Department of Education provides information on School Improvement Plans at www.doe.k12.ga.us/support/improvement/about.asp.

- Show the **potential for overall school improvement** that an outdoor classroom can bring. For example, outdoor classrooms can offer beautification, bring in community support in the form of volunteers and make the school a more attractive choice for parents to send their children.

Teachers

- Survey teachers to find out their **needs and obstacles** in regards to outdoor classroom use. **Remember, an outdoor classroom is no good if it is not being used!**[20]

- Schedule a Professional Learning Unit (PLU) accredited **environmental education training** for teachers. The Web site www.EEinGeorgia.org maintains a directory of several excellent multi-disciplinary curricula and training programs that meet state and national learning standards.[21]

- Incorporate environmental education training into the **Teachers' Professional Learning Plan** offered at your school.[22]

- Invite a local environmental education provider to lead a lesson or activity in the outdoor classroom so that teachers can **see a first hand example** of how exciting and successful teaching outdoors can be. Many environmental education providers can provide customized activities that correlate to cross-curricular state academic requirements.

- Recruit parent or community volunteers who are willing to help **chaperone** students outside.

- Provide teachers with a clearly written **safety protocol** for the outdoor classroom. See the safety protocol listed for administrators earlier in this chapter.

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[20] See Appendix D "Outdoor Classroom Needs and Interests Survey for Teachers".
[21] The Georgia Department of Education provides information on Teacher Professional Development at www.doe.k12.ga.us/support/improvement/about.asp.
[22] In partnership with Georgia Department of Education's Georgia Learning Connections Program, the Web site www.EEinGeorgia.org offers free environmentally themed lesson plans that are designed to address and assess Georgia's academic standards.

- Offer **pre-made, tried and true lesson plans** that are **correlated to state academic standards** for teachers to **"grab and go."** Some schools have centrally-located backpacks that have all materials ready for leading an outdoor excursion.

Groundskeepers

- Design your outdoor classroom with **minimal maintenance** needs in mind.

- **Survey groundskeepers** to assess their interest and the skills and resources they are willing to share for the success your outdoor classroom.

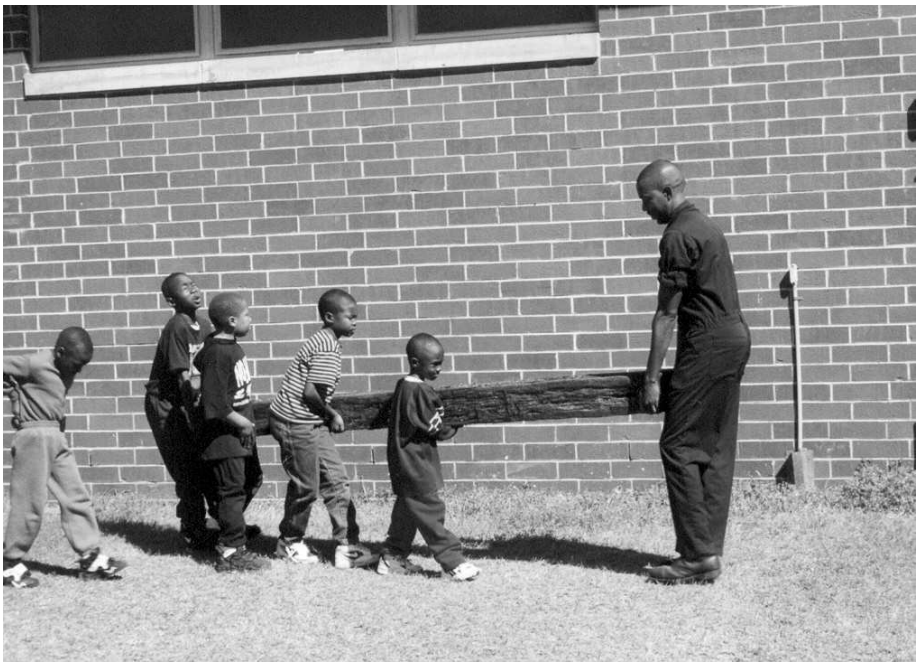
- Discuss your outdoor classroom plans with your school's groundskeepers to **negotiate and clarify any responsibilities** they are willing to assume in regards to the outdoor classroom.

- Assist your groundskeepers by **scheduling regular workdays for volunteers** to do maintenance on the outdoor classroom.

Students

- Recruiting students to help with the **initial site assessment** outlined in the previous chapter "Starting Where You Are" can be an excellent way to build interest in creating an outdoor classroom. As stated before, the site assessment can be **easily adapted to meet academic standards** across a variety of disciplines. It is also an excellent way to start the experience of teaching outdoors **before** the actual outdoor classroom has been built.

- Make sure students have some **input in the design** of the outdoor classroom and that they participate in its construction. This will foster feelings of ownership, which will in turn help **prevent possible vandalism** in the future.[23]



Parents

- Conduct an **annual survey of parents' resources and skills** that they are willing to donate to the outdoor classroom project.

- Inform parents about the **educational benefits of an outdoor classroom**. Please refer

[23] Try holding a contest to have students name the outdoor classrooms, plus each of its components.

to this point under the "Administrator" section of this chapter for more information on how to do this.

Community Members and Volunteers

- Make it easy to volunteer by keeping a **centrally located and easily accessible maintenance calendar** and scheduling regular workdays for your outdoor classroom. Include evening or Saturday workdays for volunteers with full-time jobs.

- Keep the local community informed about your project through **regular press releases** about donations needed and volunteer opportunities.

- **Make volunteering for the outdoor classroom fun!** Provide refreshments and good places to rest. Use themes, such as seasons, planting and harvesting to make working in the outdoor classroom feel more like a festival than a chore. Sometimes just **phrasing it right** can make all the difference[24].

Suggestion…

Hold an annual festival in your school's outdoor classroom. This will help institutionalize the use, maintenance and recognition of your outdoor classroom. The festival can involve all or part of the school, as well as the community.

[24] One school has declared that they never weed; instead they "feed the chickens." Volunteers and students love pulling up weeds out of the habitat gardens to feed to their school's small flock of domestic birds. If your school can't have domesticated animals, consider feeding a compost bin of earthworms and keeping track of how fast it takes for your weed pile to be composted.

Chapter 6: Funding Your Plan

Funding has long been a critical issue for Georgia's outdoor classrooms. The Georgia Outdoor Classroom Grant provided the start up for over one thousand outdoor classroom projects from 1993 until 2003, when the state Department of Education reallocated the money due to budget cuts. This grant, along with the tireless efforts of teachers, volunteers and environmental educators has made Georgia a national leader in terms of number of outdoor classrooms.

Finding money for an outdoor classroom can be difficult, but it's certainly not impossible. Here are some tips on how to fund your plan:

Plan For a Zero Budget

- Remember that using your current school grounds to teach is already **available at no cost**.
- Assess what resources and materials **are already available** to you.
- Design your outdoor classroom to be as **inexpensive to maintain** as possible. Be sure to think about how to institutionalize the use of any expensive items, such as greenhouses, to help ensure the continued funding that will be necessary to maintain them.

Start At the Local Level[25]

- Send out a **survey to parents** to find out what skills and resources they would be willing to donate to your outdoor classroom. Update this survey annually.
- Contact **local businesses** about donations or funding opportunities. Plant nurseries, lawn and garden centers and hardware stores in your area are often willing to donate to a good cause in their community, especially if they are acknowledged publicly for it.
- Create **a simple brochure and standard solicitation letter** on school letterhead that can be used by anyone to be able to easily explain your project and ask for donations.
- Contact your local nature center to find out if there are any **plant rescue groups** in your area. These groups dig up native plants in areas slated for construction and are always on the lookout for a good place to transplant them.
- Check with local construction companies to see if they have **extra building materials** they can donate.

[25] Refer to Appendix B "Possible Sources for Volunteers, Donations and Funding."

- Run a regularly **updated wish list** for your outdoor classrooms in your school newsletter, website or community paper.

- Incorporate **fundraising activities** into the long-term plans for your outdoor classroom. For example, selling garden crafts, wildflower seeds, plant sales, recycling drives, etc.

Grants and Corporate Sponsorship

- Visit www.EEinGeorgia.org and the **Outdoor Classroom Council** link at www.eealliance.org for an up-to-date list of grants available.

- Receive **monthly updates and news** by signing up for the e-news at www.EEinGeorgia.org.

- Many large **corporations** are resistant to receiving several requests for small sums. Before approaching corporate funders, contact nearby schools to see if they would be interested in joining you in **soliciting for funding as a group**. A corporation may be much more willing to give money for outdoor classrooms to a block of schools, or a school district, than a single request.

But most importantly…

Keep copies of all your fundraising efforts: parent surveys, grants, fundraising letters, contact information of donors both small and large, for others to reference later. This will help you keep track of who you have asked for what, and will make it easier for new outdoor classroom champions to find the resources they need.

Chapter 7: Building Your Outdoor Classroom

This chapter has been placed towards the middle of this guide for a reason. With busy schedules and a desire to get projects rolling, many teachers and volunteers jump directly to building an outdoor classroom as their first step without first doing much in the way of planning. **We strongly advise against this**, especially for larger projects.

If you have taken the time to work through the previous chapters, GWF's research shows that your outdoor classroom is **more likely to last longer and be better utilized**, than if you do not. Successful, comprehensive outdoor classroom projects all have two elements in common: careful planning to incorporate the outdoor classroom into regular use and maintenance and flexibility for shifting plans as needed.

If you have followed the previous suggestions, you should **already have a plan for** an outdoor classroom **that reflects the needs and wishes** of your students, other teachers, your administrators and your school grounds staff. Your plan should also reflect **the geographic reality of your schoolyard,** taking into account slope, sun, soil conditions and your regional native flora and fauna. You should be ready to build an outdoor classroom that will be built to last and well used.

Make Sure You Have Followed the Previous Chapters of this Guide!

- Make sure you have **administrative, teacher, student, parent, community and facilities staff support** of your project. This includes surveying each group for their needs and wishes for the outdoor classroom.

- Make sure you have completed a **site survey** of your schoolyard so that you plant and construct wisely.

- Make sure you have informed your school and school district about your plans to help **prevent future land-use conflict**.

- An **ideal** outdoor classroom plan should call for:
    - Easy and minimal **maintenance**
    - Integration into **academic use with ties to stated standards for all grades**
    - Maximum **accessibility** for people with various abilities
    - Limited **funding** needs
    - Putting "the right plants in the right places" to provide native **habitat** for wildlife
    - A flexible **timeline** for building

Active Participation Encourages Buy-In

- Plan to **involve as many students, at an age-appropriate level, as possible** in the actual construction of the outdoor classroom. Older students can do some of the heavier work, such as turning the soil to create garden beds and placing benches. Younger

students can plant seedlings, scatter wildflower seeds or mulch new plantings. Students are less likely to vandalize or accidentally trample work they have done themselves, especially if they have enjoyed the experience.[26]

- Invite **parents and community members** as well as the school to participate in the building of the outdoor classroom. Advertise the date in newsletters, school websites and community newspapers and create an easily accessible volunteer sign-up list.

- Involve adults in any **heavy construction projects**. Invite community groups to volunteer in the work.[27]

- Incorporating well-planned and attractive student or community **art** into the outdoor classroom can also increase feelings of ownership and decrease the potential for vandalism.

Habitat Gardening Tips[28]

- Make sure planting areas have **clearly defined borders** to prevent accidental trampling and/or mowing. Donated railroad timbers, bricks or fallen tree branches (stripped of smaller branches) make excellent free edging material.

- Garden areas should have **clearly defined paths** for maintenance personal, volunteers and students to be able to access plantings for maintenance and study. Paths should be as **level** as possible and **not mulched**, as mulching makes paths less accessible for people with motor disabilities.

- Consult a landscape architect or Master Gardener to help you **place plantings in the best possible locations** in regards to sun and shade, levels of moisture, and types of soil and slope. You should be able to tell from your completed site survey what the growing conditions are for different areas of your schoolyard. "Putting the right plant in the right place" will help ensure the time and money you invest in planting will be well spent.

    - Make wise decisions when **selecting plants**. When choosing and placing plants, be sure to take into account:

    - Using plants that are **native** to your region[29] or **hardy, non-invasive plants.**[30]

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[26] Grade-level gardens are a good way to divide maintenance tasks and encourage student ownership.
[27] See Appendix B for a listing of suggested community groups to invite.
[28] For more information on general gardening tips, contact your local extension service or see Appendix C.
[29] The GWF Web site contains resources for habitat gardening, including a database of native plants at http://www.gwf.org/habitats.htm. "Invasive" means the plant spreads aggressively outside gardens to natural areas out-competing native vegetation and choking out habitat for wildlife. Consult the GWF Web site or the Georgia

- The proper **climate and season for planting**. For example, trees, shrubs and wildflower seeds need to be planted during the cooler seasons of fall and winter. Vegetables, annual flowers and herbs have specific soil temperature and moisture requirements for planting.[31]

- **Blooming cycles** or the time it takes for plants to **mature**. Choose plants that will **mature or bloom between the fall and spring** so that your students get to see the plantings when they are the most interesting.

- The elements of **habitat** (food, water, shelter, places to raise young) provided by your plantings. Your completed survey of what wildlife is found around your school or in your area will let you know what kinds of habitat to provide.

- Create **signage** not only to identify plantings, but also to help explain what is happening during seasons when your plants are dormant. A sign that tells viewers that the wildflower patch is currently "sleeping through the winter but will be back with a surprise in the spring" will help others understand and forgive your garden when it is "ugly".[32]

Native Plant Society at www.gnps.org for lists of native plant alternatives., out-competing native vegetation and choking out habitat for wildlife. Consult the GWF Web site or the Georgia Native Plant Society at www.gnps.org for lists of native plant alternatives.

[30] Please note that not all exotic plants are invasive and may be an excellent selection for your plantings. A mix of seasonal annual flowers or vegetables can provide color and interest for a native plant garden during dormant seasons.

[31] Consult your local extension service for a vegetable, herb and ornamental flower planting calendar for your region.

[32] Garden signs make an excellent art project for students. Hint: the more interesting in design and information your signs are, the more people, especially your students, will want to read them. Signs that incorporate images will help young students, students who have trouble reading or ESOL students understand your garden as well.

Chapter 8: Institutionalizing Use & Maintenance of Your Outdoor Classroom

As stated earlier in this guide, **even the most exciting and dynamic outdoor classroom is of little worth if it is not used and maintained**. Making your outdoor classroom a **regular part of school activity**, instead of just an "extra," will help ensure that it will be around for many years.

Much of the planning for institutionalizing the use and maintenance of your outdoor classroom should begin **before** any significant construction is done. And because schools are places of constant change, **periodic assessment** of your success in these efforts should be conducted to meet your school's evolving needs. The following suggestions should help ensure your outdoor classroom becomes a successful teaching tool for your school long after the initial excitement of its first year.

Outdoor Classroom Leadership

- Your outdoor classroom should have appointed **leaders** with clearly defined oversight responsibilities.

- **Rotating leadership** positions and **delegating** smaller, finite tasks can help lessen the duties of those in a leadership position and involve more people in your project.[33]

- A **diverse outdoor classroom team or committee**, one that includes all or as many of the groups involved in your outdoor classroom as possible, will help provide a diversity of skills and **streamline communication** between groups at your school.

- Make an easily accessible and centrally located **list of contact people** for others to reference. Keep others informed on whom to contact to get involved.

Make Your Outdoor Classroom a Cross-Curricular Teaching Tool

- Before you start construction on your outdoor classroom, make sure you have **completed the needs assessment** of teachers and administrators as outlined in the first chapter of this guide.

- Construct your outdoor classroom **to fit the needs** of teachers and administrators so that they can successfully use it as **an effective teaching tool**.

- The outdoor classroom can be an excellent tool for teaching any subject, much like a computer. **Make sure teachers at your school know how to use the outdoor classroom** and are comfortable doing so. Talk to your school administrators about sponsoring **regular teacher trainings** on how to use the outdoor classroom to meet academic

[33] Refer to the list of skills and resources you created in the chapter "Making a Plan" to help you know who you will need to recruit.

standards. The website www.EEinGeorgia.org provides a comprehensive list of readily available trainings and curricula in your area.

- Contact your local nature center or environmental education provider to arrange for a **demonstration of activities** for your outdoor classroom. If possible, have the visiting educator provide copies of their materials for teachers to reference. They can also be an excellent resource in regards to addressing common outdoor safety concerns or questions about local ecology.

- Enlist **volunteer support** to help **chaperone students while outside**. Many teachers fear maintaining control of their students in an outside environment. Scheduling a Teacher's Assistant (TA), parent volunteer or class "grandparent" to accompany a class may help teachers feel more comfortable going outside.

- **Continue** to provide environmentally-based **teacher trainings** at least **annually**, so that new teachers know how to get involved.

- Encourage teachers in all academic disciplines to include regular use of the outdoor classroom into their lesson plans. Teachers can **use their pre-existing curriculum** and, with generally only minimal modification and a little creativity, use the natural environment to cover the same material in what can be a much more exciting and inspirational manner.[34]

- Enlist **administrative support** to provide **resources and time** for teachers to include the outdoor classroom in their **academic planning**. Remember, this will help ensure that the money and time your school has invested in the outdoor classroom will be put to good use.

[34] For assistance in how to use your outdoor classroom to meet academic standards, see Appendix A, contact a local environmental education provider (which can be found on the website www.EEinGeorgia.org) or consult any one of a number of nationally recognized environmental education curriculums such as Project WET, Project Wild, Project Learning Tree or National Wildlife Federation's Schoolyard Habitats. Find out more about these curricula on the previously mentioned website.

- **Avoid relegating the outdoor classroom to just one academic subject**, such as science. Many academic standards can be easily taught using the natural environment, regardless of the topic or grade level.

- If possible, create **different areas that facilitate specific topics**. For example, a "history garden" might highlight plants that are significant to various periods in history for a social studies class. A musical outdoor classroom might contain natural materials to create musical instruments, such as reeds and dried seedpods.

- **Reward teachers** for their involvement with the outdoor classroom. Some examples might include getting to wear jeans on the days they use an outdoor classroom, or public acknowledgement by the school administration or PTA for their participation.

Incorporate Student Activities into Maintaining the Outdoor Classroom

- Have **different classes adopt different areas** of the outdoor classroom to maintain.

    - Divide up maintenance by **age group** to help keep working in the outdoor classroom "cool." For example, third graders who are in charge of reseeding the wildflower patch can look forward to maintaining the pond in fourth grade.

    - To further divide the labor, individual students in a class can **"adopt" a tree or plant to study and maintain**. This will encourage student ownership of the outdoor classroom.

- **Student clubs**, such as 4-H, scouts or environmental clubs can make the maintenance of the outdoor classroom their main project.

- Encourage the use of the outdoor classroom as **a setting for other activities**, such as eating lunch, performances or recitals, or reading time.

- Enlist students' help with **generating financial support**. For example, students can collect and sell seeds or plants, make nature crafts or paint bricks in honor of financial supporters.

- Make sure that students always have **a way to contribute input** to the design and use of the outdoor classroom. A multi-phased plan that can be adapted to include student ideas will give generations of students a chance to impact and become part of the outdoor classroom.

Make Volunteering Easy and Fun

- Gather and organize an annually updated **skill bank** of parents and volunteers.

- Create a centrally located **calendar of workdays and events** for the outdoor classroom. Advertise this calendar to the local community as well as the school. Plan ahead for possible rain dates.

- As much as is possible, chose a **regular day and time** for the workday, such as every third Saturday from 10-12.

- Bring **volunteer sign-up sheets** to **school open houses and other school events** where parents and other community members are present.

- **Vary the activities** your volunteers do. No one wants to weed every time they volunteer!

- Provide **babysitters** (such as older students or parent or teacher volunteers) to keep young children engaged and out from underfoot. This will allow parents to commit their attention to working in the outdoor classroom. Young children can do craft projects or play games that relate to the outdoor classroom so that they do not feel excluded.

- Frame **regular maintenance chores as a fun activity**. For example, hold contests to see who can pull the most weeds or invite volunteers and students to paint designs on garden structures or have theme days based on seasons or other natural occurrences.

- **Take care** of your volunteers:

    - Provide **drinking water** and, if possible, some simple **refreshments.** Many local grocery stores will often donate refreshments to volunteer efforts.

    - Provide **shady places** for people to rest.

- **Recognize your volunteers** in school and community newsletters, at awards banquets or special events such as a volunteer breakfast hosted by your school.[35]

- Solicit and incorporate (when appropriate) **feedback** from your volunteers on outdoor classroom development.

- Keep your school and your community **regularly informed** on events surrounding your outdoor classroom.

- Invite **community groups** to assist with workdays or special projects.[36]

- Create a **volunteering schedule** for **summer maintenance**. For example, an individual or family can sign up to take turns caring for the outdoor classroom for one week each during the summer. Avoid making summer maintenance one person's responsibility.

But most importantly…

Make an easily accessible **maintenance guide** for your outdoor classroom as you go. In this way, future outdoor classroom leaders and volunteers will know how and when to perform maintenance tasks. Keep this guide, along with other outdoor classroom records, in a central location such as the media center and make sure others know where it is. Update it regularly!

[35] Nominate your star volunteers for the "Outdoor Classroom Volunteer Award" given annually at the state conference of Environmental Education Alliance of Georgia (EEA). Information is available for this at www.eealliance.org/conference.htm

[36] See appendix B for a list of suggested community groups that can help with your outdoor classroom.

Chapter 9: Evaluating the Success of Your Outdoor Classroom

If you have followed this guide, you will have done a great deal of work to create an outdoor classroom that will be used as an effective teaching tool for many generations of students and teachers at your school.

Of course, each school is different, as well as a place of constant change. Students and parents pass through, teachers and administrators transfer locations and educational requirements are constantly revised. One way to make sure that your outdoor classroom continues to successfully serve your school is to keep records and conduct periodic evaluations. The following are some suggestions for finding out whether your outdoor classroom is successfully meeting your school's needs.

Academic Success

- Create an **outdoor classroom log** for teachers to note use and activities conducted, along with a place to write suggestions or ideas. Keep this log in a central location so that teachers can easily access it. The log can also serve as evidence to your school administrators on how the outdoor classroom is being used.

- Keep track of **data** (anecdotal or actual statistics) that shows a correlation between **improved academic performance** and use of the outdoor classroom.[37]

- **Survey teachers** annually about their needs and thoughts regarding the outdoor classroom. Is the outdoor classroom functioning as an effective teaching tool? Why or why not? See Appendix D for a sample easy-to-use teacher survey form.

- Continue to assess the needs and thoughts of all outdoor classroom users and make changes accordingly. An easy way to do this is by putting out a **suggestion box.**

Site Sustainability

- Assess your outdoor classroom once a year for any needed **repairs or improvements**. Be sure to check:
    - Signs of erosion

[37] The State Education and Environment Roundtable (SEER) provides some good assessment strategies for "Using the Environment as an Integrating Context for Learning" (EIC) at www.seer.org/pages/resources.html

- Health of plantings
- Conditions of structures
- Definition of paths and garden beds
- Litter
- Vandalism
- Nearby safety hazards
- Signs of wildlife
- General accessibility

- You will need to **change your outdoor classroom** as time passes to accommodate for all of these factors as time passes. Remain flexible and don't be afraid to change the plan.

- **Integrate** the **needed repairs and improvements** into the long-term plans for your outdoor classroom. Schedule your workdays and inform others of needed donations accordingly.

But most importantly…

Remember that teachers learning how to use the natural environment to teach effectively is **more important** than building or installing new outdoor classroom features. Providing continued training and resources to teachers is one of the best ways you can ensure that your outdoor classroom, whatever its condition, will be used.