



# The School Grounds for Learning Project

An initiative funded by NOAA-BWET and supported by a partnership between the U.S. Fish & Wildlife Service and MAEOE, in cooperation with MSDE and MD DNR, with the support of national and regional partner organizations and topical experts, this project will provide professional development opportunities and comprehensive online project instructional resources to enable students, teachers, administrators & school facilities personnel to effectively plan, utilize & sustain a variety of environmental projects on school grounds:

**Whole site planning**

**Projects to provide habitat for wildlife**

**Projects to improve water quality**

**Projects to support a healthy school environment**

**Projects to reduce environmental impact and cost;**

**Projects to incorporate natural elements to encourage outdoor learning & discovery**

***This is a three-year project with resource development continuing through the end of 2016. Online resources will be posted on the NOAA Bay Backpack website beginning in 2016. Currently, new environmental literacy & school grounds for learning materials are posted on [www.maeoe.org](http://www.maeoe.org).***

# What's Currently Available:



**MAEOE**

Maryland Association for Environmental  
& Outdoor Education

Your Search Terms

Search



MAEOE

About

Professional  
Development

Green Schools  
& Centers

Environmental  
Literacy

School Grounds  
For Learning

Get Involved

## ENVIRONMENTAL LITERACY

### DEFINITION ENVIRONMENTAL LITERACY



In recent years, the term "environmental literacy" has become increasingly prevalent, but how exactly is environmental literacy defined?

### NATIONAL ENVIRONMENTAL LITERACY



Our future relies on a well-educated public to be knowledgeable and active stewards of the environment, yet the U.S. public suffers from a tremendous environmental literacy gap that appears to be increasing rather than decreasing. Learn about efforts across the country to support the development of environmentally literate students and citizens.

### MID-ATLANTIC ENVIRONMENTAL LITERACY STRATEGY (MAELS)



Developed by education experts, the Mid-Atlantic Elementary & Secondary Environmental Strategy (MAELS) calls upon federal, state & non-governmental partners to work together to ensure that educators and schools across the region are provided with the proper tools, training & resources to support student environmental literacy and ensure that school buildings, grounds & operations support positive environmental and human health outcomes.

### MARYLAND ENVIRONMENTAL LITERACY



In 2011, Maryland became the first state in the nation to pass an environmental literacy high school graduation requirement mandating that every local public school system in the state must now provide a comprehensive, multi-disciplinary environmental education program. Learn more about Maryland's environmental literacy standards & graduation requirement as well as current efforts to support effective environmental literacy plan implementation in schools.

### E-LIT 101: TOOLS TO EXPLAIN ENVIRONMENTAL LITERACY



Effective communication of requirements, resources and expectations is critical for successful environmental literacy plan implementation, yet the concept of environmental literacy is still unfamiliar to many people. These materials have been designed for use as an introduction or refresher for individuals, or as training tools to easily familiarize others with environmental literacy.

#### ENVIRONMENTAL LITERACY MENU

- Definition of Environmental Literacy
- National Environmental Literacy
- Mid-Atlantic Environmental Literacy Strategy
- Maryland Environmental Literacy
- E-Lit 101 Training Tools

**A comprehensive  
environmental literacy  
section, covering local,  
regional & national E-Lit  
and offering a toolbox of  
E-Lit resources**



## E-LIT 101:

### TOOLS TO EXPLAIN ENVIRONMENTAL LITERACY

In recent years, initiatives to promote environmental literacy have blossomed across the country, yet the concept is still unfamiliar to many people, including those who are integral to the success of environmental literacy initiatives. Effective communication of requirements, resources and expectations is critical for successful environmental literacy plan implementation. The materials in this toolkit have been designed to provide a fundamental understanding of the concept and implications of environmental literacy. These materials can be used as an introduction or refresher for individuals, or as training tools to easily familiarize others with environmental literacy initiatives, resources and implementation support.

#### E-Lit 101 Toolkit Materials:

- Environmental Literacy 101 Training Presentation PowerPoint
  - [Environmental Literacy 101 PowerPoint](#)
  - [Environmental Literacy 101 PowerPoint Reading Notes](#)
- Environmental Literacy Overviews: Downloadable One-Pagers
  - [National Environmental Literacy Overview](#)
  - [Mid-Atlantic Environmental Literacy Overview](#)
  - [Maryland Environmental Literacy Overview](#)
- [No Child Left Inside "Get 'Em Outside" Video](#)
- [Annotated Bibliography of Original Research Supporting Outdoor Learning & Play](#)

#### ENVIRONMENTAL LITERACY MENU

- [Definition of Environmental Literacy](#)
- [National Environmental Literacy](#)
- [Mid-Atlantic Environmental Literacy Strategy](#)
- [Maryland Environmental Literacy](#)
- [E-Lit 101 Training Tools](#)

**“E-Lit 101” Toolbox: resources for anyone to easily learn and be able to explain E-lit to others; downloadable E-Lit one-pagers**



## SCHOOL GROUNDS FOR LEARNING PROJECT

The *School Grounds for Learning Project* is a new initiative funded by the NOAA-BWET grant program and supported by a partnership between the U.S. Fish & Wildlife Service and MAEOE, in cooperation with the Maryland State Department of Education and the Maryland Department of Natural Resources. With the invaluable support of national and regional partner organizations and topical experts, this exciting project will provide professional development opportunities and comprehensive online resources featuring detailed information and instructions to enable students, teachers, administrators & school facilities personnel to effectively plan, utilize and sustain a vast variety of environmental projects on school grounds including:

- Whole site planning
- Projects to provide habitat for wildlife
- Projects to improve water quality
- Projects to support a healthy school environment
- Projects to reduce environmental impact and cost;
- Projects to incorporate natural elements to encourage outdoor learning & discovery

These dynamic resources are being designed to facilitate the effective hands-on implementation of [environmental literacy](#), the pursuit of [state Green School certification](#) and [U.S. Green Ribbon School](#) status, and the development and continued use of high quality, sustainable indoor and outdoor learning environments across the Mid-Atlantic region in keeping with the goals of the [Mid-Atlantic Elementary & Secondary Environmental Literacy Strategy](#).

Learn more about the School Grounds for Learning Project:

- [Who is developing School Grounds for Learning Project resources?](#)
- [Who is the target audience for School Grounds for Learning resources?](#)
- [What is the timeline for all of the online resources to be available?](#)
- [Why do we need the School Grounds for Learning Project?](#)
- School Grounds for Learning Project Overview: [Downloadable PDF](#)
- [School Grounds for Learning Photo Gallery](#)

**A School Grounds for  
Learning Project  
Overview Section**

# Resource & Training Center

A comprehensive **Resource & Training Center** is currently being formatted for posting, featuring:

- **Professional Development Resources:** *Calendar, Jobs, EE Certification, State Resources (Mid-Atlantic), School Grounds for Learning Trainings, etc.*
- **Green Schools & Centers Resources (State & National)**
- **Environmental Literacy Resources**
- **Individual Project Resources** *(for further research past initial project instructions)*
- **Resources by State (Mid-Atlantic)** *(e.g., state EE orgs, etc.)*
- **Environmental Education Resources**
- **Scientific Libraries**

# School Grounds For Learning Projects

*Project sections are under development through Fall 2016. Each project section will include info on site assessment, design implementation, site management, and student involvement.*

## **Projects to Provide Habitat for Wildlife:**

Tree & Woodland Projects, Wetlands, Native Plants/ Invasive Species, Meadows, Streams, Grow Out Stations, Habitat Features

## **Projects to Improve Water Quality:**

Rain Gardens, Bio-Retention & Storm Water Management, Green Roofs & Living Walls

## **Projects to Support a Healthy School Environment:**

Air Quality Preservation, Farm to School Projects/Programs, Green Cleaning & Classroom Supply Procurement; Integrated Pest Management (IPM); Physical Fitness/Outdoor Time.

## **Projects to Conserve Resources: Reduce Environmental Impact & Cost:**

School Energy Efficiency & Alternative Energy; Building Design & Performance; Waste Reduction & Recycling; Improved Water Quality, Efficiency & Conservation; Responsible Transportation: Carpooling, Walking & Biking Programs

## **Projects to Encourage Outdoor Learning and Discovery:**

Nature play/discovery spaces; Outdoor Classrooms

# Tree & Woodland Projects

Just a few hundred years ago, expansive forests covered 95% of the land surrounding the Chesapeake Bay and its tributaries. Today, less than half of these woodlands remain. Over the past 100+ years, human activities have altered the watershed's forests, reducing tree cover and fragmenting forests that still exist. These fragmented forests are less resilient to disturbances and more prone to negative influences like wildfires, overabundant deer foraging and invasive species.

**Why are trees and woodlands valuable?** Trees and forests are critical to the health and welfare of the Bay watershed and its inhabitants. Woodlands act like giant sponges, absorbing pollutants and filtering runoff before it reaches our rivers, streams, and drinking water. Root systems hold soil in place, stabilize stream banks and reduce erosion. In addition to producing the oxygen we breathe, tree cover cools the air, counteracting the decline in air quality in overheated urban areas. Well-managed forests can also help mitigate climate change by sequestering carbon in tree branches, trunks and roots. Forests provide food, shelter, nesting sites and safe migration paths for diverse wildlife. They also contribute billions of dollars each year to the region's economy: Forestry is the second largest industry in Pennsylvania and Virginia and the fifth largest in Maryland, supporting many of the region's small cities and towns. Forests also increase property values, lower energy costs and provide vast recreational opportunities.

**Take action!** Retaining and expanding forests is a cornerstone of restoration efforts: Each of the Chesapeake Bay states is relying on substantial increases in forest cover to meet restoration goals. *Every effort makes a difference!* Do you know that, according to the U.S. Forest Service, 100 trees remove 53 tons of carbon dioxide and 430 pounds of air pollutants and catch about 139,000 gallons of rainwater per year? Do you know that strategically placed trees save up to 56% on annual air-conditioning costs and evergreens that block winter winds can save 3% on heating costs? Do you know that just one oak tree can support 534 butterfly & moth species? Whether you're considering tackling a multi-acre forest restoration project, or simply planting a few trees, every tree planted or protected makes a difference!

## Tree & Woodlands Projects:

- [Assessing your site for an appropriate project](#)
- [Starter tree and woodlands projects](#)
- [Projects to enhance, expand, manage existing woodlands](#)
- [Forest buffer projects: streamside stabilization through planting](#)
- [Permaculture: Edible Food Forests](#)
- [Mythbusters, Cautionary Tales & Secrets of Success](#)

## Resource & Training Center:

- [Tree & Woodland Project Resources](#)
- [Main Resources & Training Center](#)
- [Case Studies](#)



# Specific Project (e.g., Tree Micronursery)

## Introduction to (Specific Project):

### Assessment:

- [Assessing your site for a specific project](#) (Links to main assessment page for X project category)
- (Specific Project tools and tips if applicable)

**Design:** *How-to instructions to design project including variations of project & applicable templates*

**Implementation:** *Instructions & resources for successful implementation/ installation, applicable templates*

### Site Management:


- Maintenance
- Safety & Risk Management (if applicable)
- Regulations (general and where to look for state/local regulations)\*\*
- Preventing & overcoming common barriers & challenges

*\*\*This page must remain applicable to a broad multi-state audience. More detailed info in Resources section.*

## Resource & Training Center:

- [X Project Category Resources](#)
- [Main Resources & Training Center](#)
- [Case Studies](#)





We are making every effort to ensure that project information is applicable across the Mid-Atlantic region. A sheet listing the project types is available to suggest resources. Thank you!

Know of resources you want to recommend, but don't have the info on hand?  
Don't worry, just email us at: [schoolgrounds@maeoe.org](mailto:schoolgrounds@maeoe.org)