



**Grades K-1:** Familiarize themselves with the ways they interact with soil on a daily basis. Differentiate between living and nonliving components of soil. Realize the connection between soil and items such as food, furniture, etc. Explain the role of parent materials in soil formation. Recognize that soils can be many different colors due to rock and mineral content.

**Grades 2-3:** Identify the connection between the five senses and the comfort of their living environment. Recognize that many living organisms make their home in soil. Realize the connection between soil and their daily activities. Acknowledge that healthy soil is directly related to their own healthy lifestyles. Identify ways to conserve and improve soil health.

**Grades 4-5:** Recognize that millions of organisms are living in the soil around them. Relate classifications of soil organisms to their function within the soil. Appreciate the benefit of soil and soil organisms to humans. Identify the structure and function of soil horizons. Investigate soil survey map to determine local soil types. Comprehend the factors involved in soil formation.

**Grades 6 and up:** Explain the role of soil microbes. Distinguish the difference between types of soil microbes. Recognize the involvement of soil in most aspects of daily life. Comprehend the value of healthy soil. Identify the structure and function of soil profiles. Summarize the usefulness of a soil profile as a tool to determine soil fertility. Describe the horizons within a soil profile.



## Earth Day and Environmental Awareness Month



Our office provides **FREE** class sets of age-level appropriate activity booklets for teachers to supplement environmental awareness lessons and to celebrate Earth Day on April 22.

Booklets are available while supplies last. E-mail [dfoster@co.cumberland.nc.us](mailto:dfoster@co.cumberland.nc.us) or call (910) 484-8479 option #3.

We will begin taking orders on March 1.



Designed for educators of children ages 3-7, **Growing Up WILD** builds on children's sense of wonder about nature through outdoor exploration and 27 field-tested lessons that include over 400 experiences to share with students. These experiences involve concepts in science, math, vocabulary, art, music and movement, health and safety, and nutrition, and other subjects. The curriculum is aligned with NAEYC standards, the Head Start Child Development and Early Learning Framework, and the USDA's MyPlate guidelines for child nutrition.

Growing Up WILD professional development training is widely available through Project WILD State Coordinators and Growing Up WILD Training Partners. For more information on becoming trained in Growing Up WILD, visit [www.pwgrowingupwild.org](http://www.pwgrowingupwild.org).

## Environmental Education Loan Library

Books, DVDs videos and activity guides are available free of charge for a 1-2 week loan period. Check available material list at: [co.cumberland.nc.us/departments/soil-water-group/soil-water/education/loan\\_library](http://co.cumberland.nc.us/departments/soil-water-group/soil-water/education/loan_library)

# Classroom Conservation

## WETLANDS ARE WONDERFUL!



*Essay • Poster*

*Computer Designed Slide Show*

*Computer Designed Poster*

*Public Speaking*

*Conservation Teacher of the Year*

*...and many more!*

The NC Association of Soil and Water Conservation Districts annually administers several education contests at the district and area levels, with area winners advancing to state competitions. The theme for 2019-2020 is "Wetlands are Wonderful."

Detailed information regarding the association's education contests including rules and judging score sheets is included in the Contest, Award & Workshops Handbook found at:

**NC Department of Agriculture Education Programs & Contests Contests, Awards, Workshops & Grants Handbook 2019-2020**

For more information on any of the education contests contact Donna Foster at (910) 484-8479, option 3 or [dfoster@co.cumberland.nc.us](mailto:dfoster@co.cumberland.nc.us).

# Cumberland SOIL & WATER

CONSERVATION DISTRICT  
[co.cumberland.nc.us/soil\\_water](http://co.cumberland.nc.us/soil_water)

## Board of Supervisors

C. Wayne Collier, Jr.  
*Chairman*  
Clifton McNeill, Jr.  
*Vice Chairman*  
Wingate Collier  
*Secretary/Treasurer*  
Reuben Cashwell  
*Member*  
Monique McMillan  
*Member*

## Cumberland SWCD Staff

Mitchell B. Miller  
*Soil & Water Conservationist*  
[mitchell.miller@nc.nacdnet.net](mailto:mitchell.miller@nc.nacdnet.net)

Donna Foster, SWCD  
*Administrative Program Officer*  
[dfoster@co.cumberland.nc.us](mailto:dfoster@co.cumberland.nc.us)

## NRCS Staff

Darryl E. Harrington  
*Supervisory Soil Conservationist*

## Assisting the District

Natural Resources Conservation Service  
Farm Service Agency  
Fayetteville/Cumberland Parks & Recreation  
N.C. Cooperative Extension  
N.C. Forest Service  
N.C. Wildlife Resources Commission

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Bldg, 14<sup>th</sup> & Independence Ave. SW, Washington, D.C. 20250. USDA is an equal opportunity provider and employer.



## Have you eaten any soil lately?

Through grade level appropriate activity booklets, students learn the connection to the food we eat each day back to the soil. For as long as supplies last, teachers may contact our office to request a free class set of booklets.

### Activity Booklet Topics

**Grade K-1** Discern that soil is necessary in the growth/production of the food we eat. Make a distinction between food that originates from plants versus animals. Recognize and utilize their ability to grow their own healthy food wherever they live.

**Grade 2-3** Distinguish between food that originates from plants and food that originates from animals. Become familiar with the five food groups and the role they play in human health. Recognize the role healthy soil plays in the availability of healthy food.

**Grade 4-5** Identify the five food groups and the nutritional benefits associated with each group. Comprehend the amount of food produced and consumed in the United States annually. Recognize their ability to grow their own healthy food.

Gain an appreciation for the number of people and amount of work involved in bringing food from the farm/ranch to the table.

**Grade 6 & up** Comprehend the importance of good nutrition. Relate arable land to carrying capacity in terms of food production. Compare food production to world population. Evaluate nutrient supply in ecosystems. Become familiar with commodities produced in the United States.



## Soil Lessons in Your Classroom

**We offer several soil lesson presentations.** I will be happy to work with you to bring a lesson to your class that will enhance and reinforce the study of soil for your students.

**K and 1<sup>st</sup> grade students** become "Soil Scientists" as they explore the properties of soil: composition, capacity to retain water, color, texture and ability to support life.

**2<sup>nd</sup> and 3<sup>rd</sup> graders** will learn how soil is formed from the five soil forming factors. They learn about soil particles, soil properties and create their own soil profile through a soil smudge activity.

**4<sup>th</sup> and 5<sup>th</sup> graders** will be amazed at the power of a raindrop and find out what "Best Management Practices" are and how "BMPs" help prevent soil erosion.

**6<sup>th</sup> grade and up** will marvel at soil and cell phones, soil texture, soil types and more.

Contact our office for more information about these hands-on soil lessons for your class. Yes, students will get 'soiled'! The lesson is complete with free activity books about soil and handouts for you to reinforce the lesson. All lessons are based on NC Standard Course of Study and Grade Level Competencies.



## Request a presentation for your class.

Students will receive age-level appropriate activity books to reinforce the lesson for "Where Does Your Water Shed?"

## NC River Basin Maps & Resources

[www.eenorthcarolina.org/riverbasins.html](http://www.eenorthcarolina.org/riverbasins.html)

Order Class Sets: [www.eenorthcarolina.org/riverbasins-orderform.html](http://www.eenorthcarolina.org/riverbasins-orderform.html)

Learn about watersheds, the water cycle, discover oceans and water conservation with this interactive site: [www.discoverwater.org/](http://www.discoverwater.org/)

## Where Does Your Water Shed?

**Grades K-1** Students will learn how to define a watershed, will be able to explain the flow of water through a watershed, and will learn to realize the importance of watershed conservation.

**Grades 2-3** Students will observe and participate in water being shed, evaluate the effect of pollutants on a watershed, and discuss the correlation between their habits and drinking water quality.

**Grades 4-5** Students will learn how to define watersheds, evaluate the structure of a watershed with the use of topographical maps, and explain the roll of runoff in the transport of sediment and pollution.

**Grades 6 & up** Students will learn to define watersheds, evaluate the interaction between the water cycle and the watersheds, and explain the role of top soil and runoff water in the "Dust Bowl".



### Project WET (Water Education for Teachers)

<http://www.projectwet.org/> Project WET is an interdisciplinary water science education program for formal and non-formal educators or leaders of K-12 students. It promotes awareness, appreciation, knowledge, and stewardship of NC waters. The keystone is the new, updated Curriculum & Activity Guide. Hands-on activities correlate to the NC Standard Course of Study.

The guide is only available through a 6-hour workshop, which serves as Criteria I for the NC Environmental Education Certification and six contact CEU hours for teachers.

Contact Holly Denham, North Carolina Project WET Coordinator, at (919) 707-9009 or [Holly.Denham@ncdenr.gov](mailto:Holly.Denham@ncdenr.gov).

### Investigating Your Environment (IYE) Workshop

Each summer the North Carolina Forest Service offers educators a chance to explore the environment with innovative learning activities suitable for integration into any school curriculum.

Contact Kevin Pittman at (919) 553-5651 or [Kevin.pittman@ncagr.edu](mailto:Kevin.pittman@ncagr.edu) for more information.

## Envirothon School for Advisors/Teachers

The Envirothon is the most widely recognized hands on environmental education program in the nation. Middle and high school students immerse themselves in a year-long learning process that combines in-class curriculum with hands-on field experiences facilitated by resource professionals such as soil scientists, foresters and wildlife specialists. In order to compete at area level, you only need five students to start your own team.

Training culminates in a competition where teams are tested in five subject areas: Soils/Land Use, Aquatic Ecology, Forestry, Wildlife, and a current environmental issue. Scores determine winning placements.

"Envirothon students often become serious stewards of our natural resources and advocates for a healthy planet," said John Peeler, North Carolina's Envirothon Committee Chair. "What bigger legacy can we leave?"

Contact Sandra Weitzel at (919) 218-8978 or [Sandra.weitzel@ncagr.edu](mailto:Sandra.weitzel@ncagr.edu) for more information.



### NC Food, Land, & People Facilitators (FLP) Workshop

*A Curriculum for Grades K-12*

<http://www.foodlandpeople.org/>

NC Food, Land & People is a national agricultural and environmental education program, which seeks to inspire and educate children and adults about the critical role of American agricultural in sustaining our food supply and conserving our environment for future generations. The program has developed a curriculum of fifty-four lesson plans that show the interdependence of food production, land management and human needs. These lesson plans have been correlated to the new K-12 science objectives for NC.

Contact Sandra Weitzel at (919) 218-8978 or [Sandra.weitzel@ncagr.edu](mailto:Sandra.weitzel@ncagr.edu) for more information.



<https://www.plt.org/> Project Learning Tree®

(PLT) is an award-winning environmental education program designed for teachers and other educators working with students in kindergarten through grade twelve. PLT uses the forest as a "window" into the natural world, helping young people gain an awareness and knowledge of the world around them, as well as their place within it.

PLT is a source of interdisciplinary instructional activities and provides workshops and in-service programs for teachers, foresters, park and nature center staff, and youth group leaders. To receive information on where this workshop is being conducted in your area please call Chris Carlson at (919) 857-4819, or the NC PLT State Coordinator Renee Strnad at (919) 515-5518.