

2011-2012 Resources for Educators

Conservation in the Classroom

An Environmental Education Newsletter for Educators in Cumberland County
Provided by Cumberland Soil and Water Conservation District

Visit our website at: www.co.cumberland.nc.us/soil_water/



Food, Land & People Workshop participants pause for a photo with John Gillis before boarding the wagon for a tour of Gillis Hill Farms.

Cumberland SWCD was a co-sponsor of the Area VII NCASWCD Project WET / Food, Land and People (FLP) Educator Workshop which was held in Fayetteville on June 27, 28 & 29, 2011 at the John E. Pechmenn Fish & Education Center. Fifteen educators from Cumberland, Robeson and Hoke Counties received continuing education credits, curriculum and resources that help educators and students in grades PreK-12 to better understand the interrelationships among agriculture, the environment and the people of the world. Kay Bullard of Cumberland SWCD and Joanna McPhatter of Robeson SWCD were facilitators for the NC Division of Soil and Water Conservation's signature education program. Holly Denham, NC Project WET Coordinator for NCDENR Division of Water Resources, was facilitator for Project WET. Guest presenters for FLP were Chris Earp of House of Raeford Farms; Candy Underwood and Krista Caison of Cumberland County Cooperative Extension; Terry Lengel, beekeeper; Cyndy Murphy of Great Harvest Bread Company and John Gillis of Gillis Hill Farms.

Other sponsors were: Area VII Association of Soil and Water Conservation Districts, Cumberland and Robeson SWCDs, Cape Fear Farm Credit, Robeson Farm Bureau and Harris Teeter of Fayetteville.

Angela Adams, CCS Science Curriculum Specialist for K-5 and CCS teachers Ashley deGrasse and James Kline were participants.

One of the top priorities for Cumberland Soil and Water Conservation District is to offer support to educators in the field of conservation education in all grade levels at public, private and home schools in Cumberland County.

Classroom
Resources

Free
Loan Library

Lesson Presentations

Teacher Workshops

Envirothon Team
Training

Student Scholarship to
Resource Conservation
Workshop at NCSU

Kay Bullard
District Manager
Education Coordinator
kbullard@co.cumberland.nc.us
484-8479 Opt. #3

**Cumberland
Soil and Water
Conservation District**

BOARD OF SUPERVISORS

Robert "Bob" White
Chairman

Reuben Cashwell
Vice Chairman

Wingate Collier
Clifton McNeill
Jerome Person

DISTRICT PERSONNEL

Kay B. Bullard
District Manager
kbullard@co.cumberland.nc.us

Larry Simpson
District Technician
larry.simpson@nc.nacdnet.net

DISTRICT WEBSITE
www.co.cumberland.nc.us/soil_water/

NRCS PERSONNEL
Renessa Brown
District Conservationist
David Faircloth
ATAC Technician

ASSISTING THE DISTRICT
Natural Resources
Conservation Service
Farm Service Agency
Fayetteville / Cumberland
Parks & Recreation
NC 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, 14th & Independence Ave. SW, Washington, D.C. 20250. USDA is an equal opportunity provider and employer.

DISTRICT WEBSITE

www.co.cumberland.nc.us/soil_water/

Resource Conservation Workshop SCHOLARSHIP

Each year Cumberland Soil and Water Conservation District awards the Resource Conservation Workshop (RCW) scholarship to a high school student from Cumberland County. This scholarship pays for registration, lodging, food and travel.

The RCW is a week-long study, including hands-on participation in a wide range of conservation topics, held on the campus of North Carolina State University. One of the main objectives of the RCW is to expose students to career opportunities in the management of natural resources.

If you know an outstanding student (9th, 10th or 11th grade) who has demonstrated an interest in natural resource conservation and would like to nominate him or her for this opportunity, please contact our office by March 1, 2012 for an application.

Deadline for applications is April 1, 2012.



Cameron Phipps

Cumberland Soil and Water Conservation District awarded its 2011 Resource Conservation Workshop scholarship to Cameron Phipps, a rising junior at Cape Fear High School. Cameron and other North Carolina high school students were housed at N.C. State University June 26 through July 1, 2011 to learn about environmental conservation and compete for a chance to win a college scholarship.

The program exposes students to careers in natural resource management and the opportunities available at colleges like NCSU.

During the week the group toured a water treatment plant, visited an educational forest, saw some of the university's conservation projects and met representatives from natural resource management agencies. Students take an exam at the end of the week to test what they have learned and determine scholarship winners. .



Growing Up WILD workshop participants at the Agriculture Center

Story on page 4 ☺

RAIN BARRELS GO TO SCHOOL!

Incorporating rain barrels on school property and within community gardens is inexpensive and full of educational opportunities. Cumberland SWCD sells rain barrels for \$35 each and donates a free barrel to each school that purchases a barrel. Several Cumberland County Schools purchased rain barrels during the 2010-11 school year. Read on to find out how two schools are using rain barrels to collect water for their projects and teach students about water conservation.

The community garden at Pauline Jones School of Math and Natural Science was conceived in response to the acquisition of an adjacent piece of property by the Cumberland County Schools Board of Education in January 2009. In cooperation with the Cumberland County Schools Grounds and Maintenance Department, Sustainable Sandhills, and Cape Fear Botanical Garden coordinators Heather Kaiser and Joy Pitts were able to develop the garden plan as part of the school's participation in the Green Schools Initiative of Cumberland County Schools. Early partnerships with Cumberland County Solid Waste Department, Evans Methodist Church Boy Scout Troup, and Methodist University allowed them to build the area up with rich compost material, test the soil, and plant the first flower bulbs, tomatoes, gourds, and flowering cabbages for a spring/summer 2009 crop.

After a successful year of cutting energy costs, they were awarded with a rebate that was used to proceed into the next phase of the garden. During the 2009-2010 school year their partnerships expanded to include Fayetteville State University, Bell's Seed Store and a number of landscaping companies. Benches, decorative arches, fruit trees, decorative grasses, blueberry bushes, strawberry plants, and everbearing azalea bushes were among the additions to the community garden in this phase. Students in third grade planted and cared for cabbage plants in the community garden from March until June 2010 as part of a Bonnie Plants annual competition. In April 2010 the community garden was featured as the first stop on the Sustainable Sandhills Urban Farm Tour.

Heather Kaiser, Science Lab teacher, said, "The garden project continues to grow thanks to our partnerships and grant funded sources. Our berry bushes and fruit trees are already producing luscious blueberries, figs, and even our first golden delicious apple. This was really exciting for students attending the first ever science summer camp during July 2011. We have been able to add six rain barrels that allow us to reclaim water in our efforts to 'go green'. It is our plan to continue growing responsible citizens by growing gardens at our school." Over the next five years Mrs. Kaiser will continue to champion this effort with the support of the Burroughs Wellcome Career Award for Math and Science Teachers she received.



Heather Kaiser fills a bucket to water the school's garden plants. Six rain barrels catch rainwater runoff from the roof of Pauline Jones Elementary School of Math and Natural Science.



Ashley Long of Grays Creek Middle School

Ashley Long, Grays Creek Middle School Agriculture Education teacher and FFA advisor, purchased a barrel and received a free barrel from the District to provide water for the school's green house.

Miss Long plans to use the barrels to harvest rain water runoff from the green house. She is dreaming of a winter produce garden in raised beds where her Agriculture Education students will plant and grow winter produce items. "I'd like for my students to donate the food they grow to a local food bank."



EXPLORING NATURE WITH YOUNG CHILDREN

Cumberland Soil and Water Conservation District hosted training on "Growing Up WILD: Exploring Nature with Young Children" on August 10, 2011. Nineteen early childhood educators attended.

Presenter for this free training was Mike Campbell, Coastal Outreach Educator for the North Carolina Wildlife Resources Commission.

Growing Up WILD is an early childhood education program that builds on children's sense of wonder about nature and invites them to explore wildlife and the world around them. Through a wide range of activities and experiences, *Growing Up WILD* provides an early foundation for developing positive impressions about nature and lifelong social and academic skills.

Each participant received a copy of the *Growing Up WILD* activity guide that features 27 field-tested, hands on, nature-based activities that support developmentally appropriate practice allowing children to learn at levels that are individually, socially and culturally appropriate.

Growing Up WILD is a program of the Council for Environmental Education and is coordinated and delivered by a network of representatives from sponsoring wildlife, natural resources, and educational agencies at state and local levels.

Right: Pam Vivian , DENR Environmental Specialist and Linda Silva of Elizabeth Cashwell Elementary explore the Agri-Center 's Inspiration Garden.



Below: Ashley deGrasse of Westarea Elementary displays her group's "Deep Blue Sea" habitat.



Celebrate in April!



Earth Day and Environmental Awareness Month

Our office will provide **FREE** class sets of age-level appropriate activity booklets for teachers to use to supplement environmental awareness lessons and Earth Day celebrations in April.

Booklets are available on a first-request basis for as long as supplies last.

E-mail kbullard@co.cumberland.nc.us or call 484-8479 Option #3

We will begin taking orders on March 1, 2012



ENVIROTHON

A Natural Resources Competition for Middle and High School Students!

WHAT IS THE ENVIROTHON?

The Envirothon is a hands-on environmental problem-solving competition for middle and high school students. The Envirothon program is an effective educational tool, capable of supplementing environmental education both inside and outside the classroom.

Led by a volunteer advisor, teams usually meet from late autumn until spring. Teams work collaboratively to develop their knowledge of soils, wildlife, aquatics, forestry and current environmental issues in preparation for Envirothon competitions. Team training may include field trips to natural resource sites, museums, or other areas of interest; listening to presentations given by natural resource professionals; and careful study of natural resource materials. Through these learning activities, teams increase their knowledge of and ability to understand complex environmental and natural resource issues. Curriculum resources are provided.

Envirothon is an excellent program for science clubs, FFA members, 4-H clubs, home-school groups. Call Kay at 484-8479 #3 to learn more about Envirothon and register a team.

TRAINING THE TEAMS

The District provides training workshops to assist advisors of Cumberland County teams in preparing their students for the Envirothon competitions. Local environmental educators, resource professionals and college professors lead workshops on each of the natural resource areas that are tested: Soils, Forestry, Wildlife, Aquatics and Current Environmental Issues.

Instructors for the 2011 training were: Roger Hart and Andrew Snyder, NC Forest Resources; Elizabeth Evans, Ft. Bragg Endangered Species Branch; Julie Beighley, Environmental Educator; Rebecca Wesbrooks, Southeastern Community College; Dr. David Lindbo, Dept. of Soil Science NC State University; Dr. Chana Witanachchi, DENR – Division of Soil & Water Conservation Soil Scientist and the staff of Clark Park Nature Center.

AREA VII ENVIROTHON

This is the first level of competition. The top seven teams (with a minimum score of 350 points) will be eligible to compete at the state event at Cedar Rock Park in April.

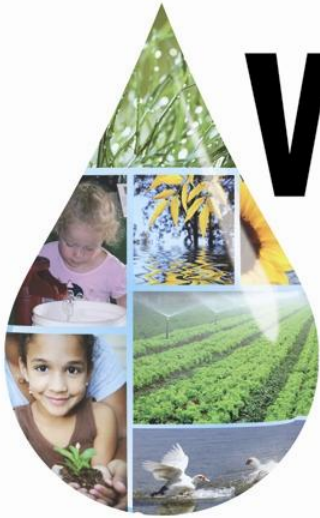
Lake Waccamaw State Park in Columbus County was the setting of this year's Area VII Envirothon competition on March 31, 2011. Thirty teams from Bladen, Columbus, Cumberland, Robeson and Sampson Counties competed for the opportunity to go to the State competition in April.

2012 Area Envirothon is March 29, 2012 at Lake Waccamaw.



Above: Cumberland home-school team, “**The Octopi**” of **H.O.M.E.**, placed fourth out of fifty-six teams at the NC Middle School Envirothon on April 30, 2011 at Cedarrock State Park, Burlington, NC. Teams from Cape Fear High School and Grays Creek High School represented Cumberland County in the high school competition.
Left: Dr. David Lindbo with Envirothon students at soil training.





Water

is life

Request one of these **FREE** PowerPoint presentations for your class. CD comes with a class set of age-level appropriate activity books to reinforce the "Water is Life" lesson for your students.

BEGINNER Grades K-1

Topics: Water in everyday life, states of water – solid, liquid, gas.

INTERMEDIATE Grades 2-3 Topics: Water cycle, groundwater, drinking water.

ADVANCED Grades 4-5 (May also be used with older students)

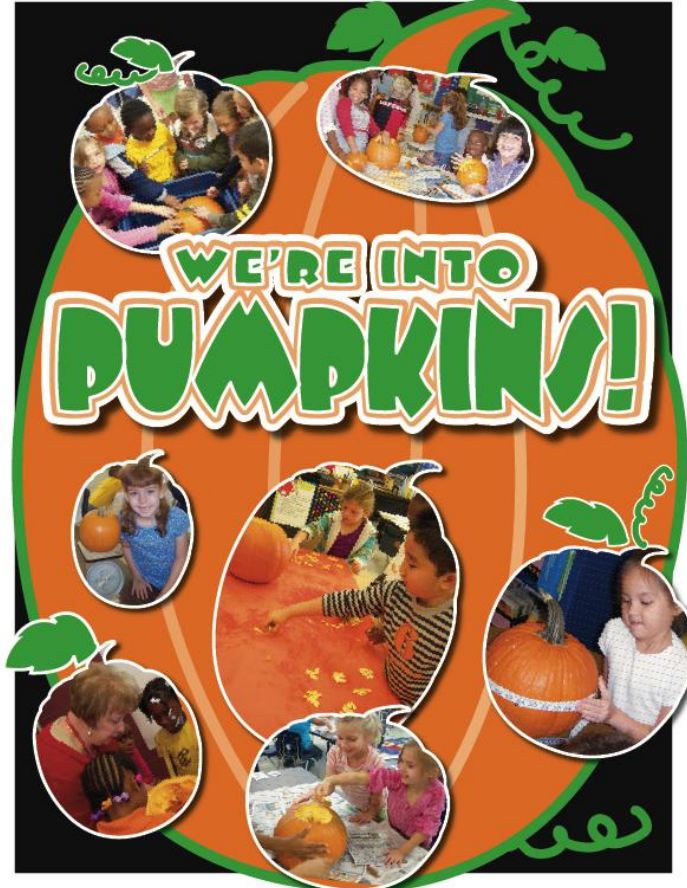
Topics: amount of water on Earth, watershed, stormwater runoff, and drought/floods.

SOIL RESOURCES FOR 6th GRADE +

Teachers: call our office to request a **FREE CD** with a PowerPoint presentation to compliment the **FREE student booklets**. CD includes a Soils Jeopardy Game and Educators Guide.

DIG IT! TXT FRM UNDR URFT

Student booklets designed for grades 6 and up. Topics covered: Soil and cell phones, soil texture, soil types and more.



Pre-Kindergarten – 6th Grade Teachers:

Contact our office to request your copy of this "Food, Land & People" lesson!

Students conduct a hands-on investigation of pumpkins and visit a pumpkin farm via a PowerPoint presentation. The FLP lesson, with handouts, is provided for you to expand the lesson... and the seasonal fun!

You will receive:

- * PowerPoint Presentation on CD;
- * Food, Land and People Lesson ; and
- * Reproducible Handouts to expand lesson





Stewardship Lesson for Pre K- 5th Students

DIRT MADE MY LUNCH!

All the food we eat grows using the natural resources of soil, water, light and air. Many people work hard to grow food, harvest it, prepare it, and bring it to us. This stewardship lesson, "Food for the Future" will encourage PreK-5th grade students to think about where all that delicious food comes from! The forty-five minute lesson includes a PowerPoint presentation and grade level appropriate activity books. Call our office for more information.

Environmental Education

LOAN LIBRARY

All loan library materials are available free-of charge for a 1-2 week loan period. Click on Loan Library and see the list of books, DVD's, videos and activity guides at our website:
http://www.co.cumberland.nc.us/soil_water/education.asp

SOIL LESSONS

THAT COME TO YOUR CLASSROOM!

Dirt is that stuff you bring in the house on the bottom of your shoes! It's really misplaced soil. Soil is the wonderful interface of air, minerals, water and organic matter that covers our land and grows plants. It's one of the four essentials for life!

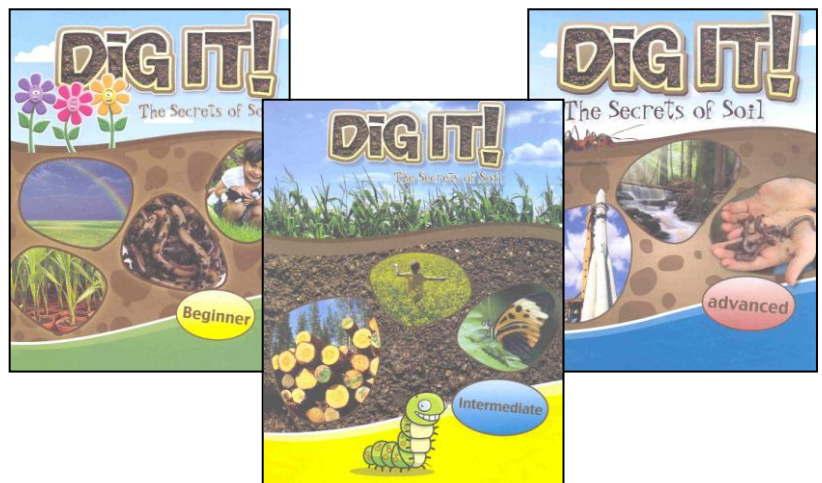
We offer several soil lesson presentations. I will be happy to work with you to bring a lesson to your class that will enhance and reinforce the study of soil for your students.

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 (while supplies last) 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.**

1st grade students become "Soil Scientists" as they explore the properties of soil: composition, capacity to retain water, color, texture and ability to support life. (1 hour)

3rd graders will learn how soil is formed when "Chef Soil" cooks up a batch of the five soil forming factors. They learn about soil particles, soil properties and create their own soil profile through a soil smudge activity. (1 hour)

5th 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. (45 minutes)





Cumberland Soil and Water Conservation District

301 East Mountain Drive, Suite 229
Fayetteville, NC 28306-3422
910-484-8479 Option #3

MISSION STATEMENT

The mission of Cumberland Soil and Water Conservation District is to take available technical, financial and educational resources and administer programs designed to encourage individual responsibility to conserve, improve and sustain our soil and water resources for future generations.

STEWARDSHIP ATTITUDE

A major goal of the District is educating and informing the public. We are committed to helping landowners understand and succeed at land stewardship. We also recognize that the future of our natural resources depends on nurturing an attitude of stewardship in the minds and hearts of children.

