

Professional Development Opportunities

[\(Download printer-friendly pdf version\)](#)



- [Earth Science Week](#)
- [Chemistry Week](#)
- [The NCCAT Experience](#)
- [The Science House, NC State University](#)
- [Science Olympiad Coaches Workshop](#)
- [North Carolina Museum of Natural Sciences](#)
- [Project Learning Tree](#)
- [Toyota TAPESTRY Grants](#)
- [APS Careers in Physiology Brochure](#)

Earth Science Week

October 12-18, 2003. We are happy to announce a new theme, "Eyes on Planet Earth: Monitoring Our Changing World", which focuses on the many ways that geoscientists study and record our dynamic Earth's systems. Learn about Earth Science Week activities online at <http://www.earthsciweek.org>.

Chemistry Week

The North Carolina Section of the American Chemical Society has two events occurring over National Chemistry Week which teachers should take advantage of and encourage their students to attend.

There is a Chemistry Stage Show and Exhibit as part of the "Healthy Farms and Healthy Families" tent at the North Carolina State Fair. The State Fair runs from Oct. 17th-26th and tickets go on sale September 6th at a reduced cost to the public on-line.

Demonstrations will be performed both on stage and in the exhibit area. These will explore the states of matter in ways that will include the use of cryogenic materials like liquid nitrogen and dry ice. Properties like compressibility, fluidity and density will be demonstrated among other properties of matter. Hands on activities will be done in the exhibit area too. Chemists from academics, industry and government labs will be on hand to discuss careers in chemistry.

We will again be holding a special "Chemistry Day" event at the Museum of Natural Sciences in Raleigh in honor of National Chemistry Week (NCW). This year the event will be on Sunday, Oct. 26th from 12-5 pm. Amanda Harper can give you better information on this event.

The ACS is the world's largest professional organization of scientists. There are more than 150,000 members world wide and nearly 5,000 members divided among 6 Local Sections that are either entirely or partly in North Carolina. The Society's members include not only chemists in academics, industry and government, but also chemical engineers, biochemists, medical doctors and scientists in almost any area where studying the chemical reactions specific to a discipline is important.

Teacher Renewal Seminars: The NCCAT Experience

The North Carolina Center for the Advancement of Teaching, NCCAT offers a full continuum of professional development for teachers from support to beginning teachers to renewal seminars designed to give teachers creative experiences, opportunities for research or scholarly pursuits, and fresh vitality for the important career of education. Teachers of all grade levels and subjects who have been employed full-time in North Carolina public schools for at least three years may choose any seminar of interest. There is no cost to the teacher, but a brief essay and a recommendation from your principal are required. All professional development offerings are available on the NCCAT web page - www.nccat.org.



Brief descriptions of upcoming seminars that might interest our NCSTA members:

Beaches: Yesterday, Today, and Tomorrow, September 15–19: Salter Path

If our students are going to grow into wise citizen-stewards of North Carolina's cherished coastline, their understanding of the beach has to go deeper than sands, tans, and seafood restaurants. Teachers at all grade levels and subjects are invited for this week of exploring the world of the barrier islands. Investigate changing beach environments, including the consequences of natural phenomena (such as wind and waves) and human manipulation. Study barrier island ecology from sound to sea. Obtain a greater understanding of coastal life, history, and culture through the songs and stories of local residents.

Songs and Tales of Whales and Sails, September 15–19: Salter Path

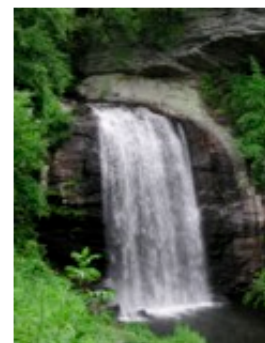
Our imaginary voyage of discovery begins aboard a nineteenth century whaling ship. Get under way with sailors' tales, chanteys, and a view of shipboard life from those who first observed, hunted, and experienced these leviathans of the deep. Learn about whale types, whale oil, whale bone, ambergris, and the controversial commercial use of whales. Explore the natural habitat of the North Carolina shore and ride on the Mystery Boat. From Moby Dick to the works of Roger Payne we will explore the literature, science, poetry, and music of whales. (Two participants to a room.)

Stargazing: Majesty and Mystery of the Night Sky, September 15–19: Cullowhee

Join us for a week with faculty from the Morehead Planetarium as we emphasize practical stargazing with the naked eye. Learn about the celestial sphere, how the sky seems to move and change, how to identify many bright stars and constellations, why we have seasons, and the cycles of the moon and planets. Explore phenomena such as eclipses, meteors, comets, and satellites. Master the basics of how to choose and use a telescope as we move to a dark outdoor site to view the evening sky. Hands-on activities will awaken us to the awe and mystery of the cosmos.

The Mountain, September 22–26: Cullowhee

Join staff members from the North Carolina State Museum of Natural Sciences of Raleigh as we examine the mountain as symbol and explore it as physical reality. We will experience the ecology of fall migration, learn about birds and butterflies, and acquire skills to help take the wonders of the natural world back to our classrooms. Hikes are planned for several mountains in Western North Carolina, including an overnight experience at Mount LeConte in the Great Smoky Mountains National Park. This seminar will be physically challenging and requires endurance, good health, and a philosophical attitude about the weather.



Mountain Land, Mountain People, September 24–28: Cullowhee

Southern Appalachian mountain people have close ties with the land. In fact, it is common to find that members of families were buried on the few rocky acres where they lived and worked their entire lives. This seminar will provide rich information for teachers of North Carolina social studies, music, and language arts. We will read and discuss firsthand accounts of the lives of mountain people and travel into the hills, coves, and hollows to meet those who live on and work their land. We will learn about the Cherokee people by visiting the Museum of the Cherokee Indian and touring the Oconaluftee Indian Village. We will spend a day immersed in mountain culture as

we experience the Mountain Heritage Day festival at Western Carolina University. Our week will be filled with mountain music and storytelling.

New Neighbors: Latinos in North Carolina, September 29–October 3: Cullowhee

In the last decade, North Carolina has experienced a large migration of Spanish-speaking people into the state. Most of these immigrants are from Mexico. In this seminar learn about the culture, customs, and societal expectations of our southern neighbors and discover how they have begun to meld with and influence North Carolina communities. Learn how recent political and economic occurrences in Mexico have contributed to this migration. Sample the food, music, dance, and art of Mexico. Explore current issues and concerns of Latinos in North Carolina with particular focus on ways to include and serve Spanish-speaking students in the classroom.

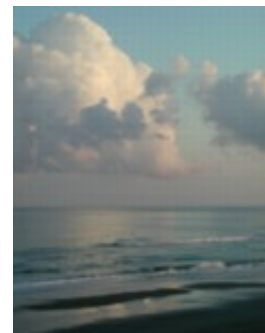
The Heart of Teaching (Especially for WNC teachers) October 24–26, 2003

2004: January 23–25, April 23–25, July 23–25, October 22–24 Dates for the 2005 sessions will be announced later.

NCCAT is pleased to invite career teachers from the western counties of North Carolina to participate in a two-year program of sustained exploration of the heart and soul of teaching. During four weekend mini-seminars each year, a group of dedicated colleagues will be guests at our Cullowhee campus to share stories, reflect on their personal and professional lives, and call upon the inspiration of poetry and the arts. Together we will take heart: reconnect with our deep passion and joy in teaching. This seminar is open to all public school teachers who live within a four-hour driving radius of Cullowhee and who can commit to attend eight three-day mini-seminars over the two-year period.

Island People, Island Culture, October 27–31: Ocracoke

The people of the island of Ocracoke have close ties to each other and to the waters that surround the island. Many Ocracokers have spent their entire lives on the island and developed bonds that contribute to a unique culture. Participants in this seminar will read, listen to, and discuss firsthand accounts of the lives of native islanders from historical, geographical, educational, political, and environmental perspectives. Walking tours of the island and visits to nearby Portsmouth Island, the Ocracoke School, and the homes of Ocracoke families will illuminate how human culture shapes and is shaped by the natural environment. Island history, values, and stories will be central themes in this seminar. (Two participants to a room.)



Teacher Scholars in Residence, November 10–14: Cullowhee

The Teacher-Scholar program offers educators an excellent short-term residential experience for study and research. Individual teachers or teams of up to four educators who seek time and space for collaboration are invited to apply. Preference is given to teachers with outstanding proposals who are applying to the program for the first time. For more information dial 800-922-0482 or e-mail tscholars@nccat.org.

Science's Time Machine: How Scientists and Writers Tell the Story of Life, November 17–21: Cullowhee

The story of evolutionary change through time has intrigued scientists and inspired writers for centuries. Consider this topic from many perspectives as we “time-travel” through the ages. Become modern evolutionary biologists seeking out connections among species as we conduct experiments in UNC-Chapel Hill’s state-of-the-art traveling science laboratory. Explore evolutionary themes in popular fiction and film, then make literary records of our own inquiries and ideas. Venture into the mountains of western North Carolina looking for traces of a tropical climate 40 million years in the past. Travel to Dayton, Tennessee, site of the famous Scopes “Monkey Trial” of 1925, for a historical tour. Science teachers and non-science teachers will enjoy this interdisciplinary seminar.

Contemporary Potters of Western North Carolina, December 15–19: Cullowhee

Pottery plays an integral role in the craft history of North Carolina, from the folk potters of Seagrove to the contemporary potters of the western mountains. This seminar will combine studio

work in clay along with a comprehensive examination of contemporary pottery from western North Carolina. Studio work will include basic techniques in hand-building and wheel-throwing. Glazing and firing will complete our pieces. Based on these pottery experiences, participants will then compare their understanding of this art form to the larger realities of contemporary pottery, its changing history, technology, and culture. We plan visits to a nationally recognized craft guild shop and several galleries in and around Asheville. Renowned potters will discuss the practical and personal aspects of the pottery industry.

Diversity Education: Exploring Cultural Heritage Online, February 15–19: Cullowhee

What resources are available online in North Carolina to teach in today's diverse classroom? How can those documents, photos, and recordings enrich our instruction? This seminar is curriculum-focused to assist teachers in embedding knowledge of many peoples into the daily content of the classroom in grades K–12. Find exhibits, traveling trunks, road shows, and staff development programs that will help you teach the critical role diversity plays in a healthy democracy and the skills necessary for its maintenance.

Nuevas Fronteras: Latinos in North Carolina, February 15–19: Cullowhee

Since 1990 the Latino student population in North Carolina has increased by 441 percent. How can we as teachers best serve our growing population of Spanish-speaking students and what can we learn from them? Knowledge and appreciation of a culture are the first steps to successful communication and interaction. Come and experience the art, music, and cuisine of Latin American cultures. Learn about the folklore and festivals that shape the Latino sense of community as well as the political and economic factors that contribute to Latino migration. We also will explore various strategies for teaching in a culturally responsive way. Come explore with us the Latino roots of our new neighbors.

Optimal Health, February 23–27: Cullowhee

What is the link between what we eat and how we feel? Recent research suggests that people with different mental and physical constitutions require different types of foods, exercise, and relaxation techniques to stay healthy, wealthy, and wise. Come examine the links between our Mind-Body Type and how we manage stress, money, and relationships. Expand your knowledge of different learning styles and generate a wealth of strategies to instill more harmony in your classrooms.

Teacher Scholars in Residence, February 23–27: Cullowhee

The Teacher Scholar program offers educators an excellent short-term residential experience for study and research. Teachers pursuing projects of outstanding intellectual or artistic promise are invited to apply. Teams of up to four educators who seek time and space for collaboration also may apply. Preference is given to teachers with outstanding proposals who are applying to the program for the first time. For more information dial 800-922-0482 or email tscholars@nccat.org.

How do I apply?

Take advantage of these unique professional development opportunities! Visit the NCCAT Website at www.nccat.org to download an application or call the NCCAT Teacher Services at 1-800-922-0482. January through April seminars have been filled, but you can be placed on a waiting list with an application. Registration for May through August seminars begins on February 3 for teachers who have never attended an NCCAT renewal seminar and on March 3 for NCCAT alum. If you have any questions about particular seminars, please feel free to call Renée Coward, NCCAT representative and NCSTA member.

Teacher and Student Programs at The Science House

GIS in the Classroom: Join us Saturday, September 20 for a workshop to provide teachers with a basic overview to Geographic Information Systems technology. As the importance of the earth/environmental science curriculum in North Carolina grows, computer applications that support these sciences



grow as well. The GIS software applications are visual mapping techniques to enhance the way that scientists, community planners, and business professionals examine data. GIS is a tool that will allow analysis of information in a different and powerful fashion. For middle and high school teachers. Register now at <http://www.science-house.org/workshops/gis.html>

Keys to Lab Safety: Are your science labs or classrooms safe for teachers and students? Are your chemicals stored properly? Are emergency procedures in place at your school? How can you be sure? Join us on Saturday, October 25th, at The Science House as we discuss the Keys To Lab Safety. Come prepared to create or improve upon your school science safety plan. Take home the Total Science Safety software by JaKel, Inc. containing checklists, safety procedures, and legal information. Make your classroom, your school, or your school system as safe as it can possibly be! To register visit the workshop web page <http://www.science-house.org/workshops/safety.html>

Bring the Science House Teacher Workshops to Your School

The Science House also provides one or two-day programs to update and refresh teachers' mathematics, science, and Internet skills. These workshops have been taught many times in schools across North Carolina. Our workshop participants learn skills and activities that they can immediately use in their own classrooms. We especially emphasize programs to help meet teacher technology competencies. Each workshop can be tailored to fit local needs. Please visit the workshop web page (www.science-house.org/workshops/) for more information on our workshop or contact Scott Ragan (scott_ragan@ncsu.edu) at The Science House or call (919) 515-6118.

Science Olympiad Coaches Workshop

Workshops for all coaches will be held at NC State University on October 17-18, 2003 and at UNC-Asheville on September 26-27, 2003. The workshop at UNCA is limited to the following counties in regions 7, 8 and 9. The workshops will run Friday starting around 5 pm until around 9 pm with dinner provided. On Saturday they will run from 9 am until around 4 pm with lunch and refreshments provided in the morning. The workshops will have different sessions for the less experienced and the more experienced coaches. Learn more at http://www.tx.ncsu.edu/science_olympiad/2003coachesworkshops.html.

North Carolina Museum of Natural Sciences

Join the NC Museum of Natural Sciences this summer for explorations of some of North Carolina's incredible natural areas as we learn about topics from salt marshes to mountain salamanders to Museum collections and exhibits (see trek descriptions below)! Our teacher treks are open to all manner of educators from classroom teachers to park rangers and anyone else that teaches children or adults about the natural world. To register, visit our web site at www.naturalsciences.org and download the registration and application forms in the Education section. All museum educator treks meet various criteria for the Environmental Education Certification Program through the NC Office of Environmental Education. Registration for these treks is on a first-come, first-served basis, so register early. For more information, contact Mike Dunn at mike.dunn@ncmail.net.



Geology Adventure, Wake County, NC

Saturday, September 13, 2003, 9:00 a.m.- 5:00 p.m., Cost: \$15

At the Museum, the curator of geology and other Museum educators teach you how to identify rock and mineral samples. Next you'll investigate the teaching possibilities of the Museum's geological exhibits. Then practice your identification skills in the field and explore a variety of

geologically interesting sites in Wake County. Take-home materials include a jeweler's loupe and a classroom set of rock samples.

Highs and Lows of Pilot Mountain, Pilot Mountain State Park, Surry County, NC
Saturday, September 13, 2003, 8:00 a.m.- 7:00 p.m., Cost: \$15
Explore the varied landscape of Pilot Mountain State Park from the lowlands along the Yadkin River to the top of the mountain. Museum and park staff will lead you on a morning canoe trip to explore the diverse natural communities and historic highlights along this less traveled portion of the park. We will end the day at the top of the mountain, comparing the geology and plant and animal communities that span this diverse North Carolina treasure.

For more information on teacher treks and other museum services, visit our web site at www.naturalsciences.org or contact Mike Dunn at (919) 733-7450 ext 620 or Mike.Dunn@ncmail.net

Project Learning Tree Workshops

Project Learning Tree (PLT) is a hands-on, interdisciplinary curriculum for students in grades PreK-12 that uses trees as a "window" into natural and built environments. Anyone who works with youth or has an interest in educating others about the environments around us may attend PLT workshops.



September 9-10, 2003, 9am - 3pm &
9am - 1pm (must attend both sessions), Bladen County, [Turnbull Creek Educational State Forest](#), Elizabethtown, NC PreK-8 (10 hours) To Register: [Turnbull Creek ESF 910-588-4161](#)

September 20, 2003, 9am - 4pm PreK-8 Workshop
[Clemmons Educational State Forest](#) and [Cooper Elementary](#) Clayton, NC
To Register: [Clemmons ESF Rangers 919-553-5651](#) clemmons esf@mindspring.net
A simple homework assignment will allow educators to earn 1.0 CEU credit for attending this workshop. Likewise - homework must be completed by participants to fulfill the 10-hour PLT Component I requirement for the North Carolina Environmental Education Certification Program.

October 2, 2003, 9:30am - 4:30pm PreK-8 Workshop Weymouth Woods - [Sandhills Nature Preserve](#) Southern Pines, NC (Moore County)
To Register: [Weymouth Woods 910-692-2167](#) kim.hyre@ncmail.net
A simple homework assignment will allow educators to earn 1.0 CEU credit for attending this workshop. Likewise - homework must be completed by participants to fulfill the 10-hour PLT Component I requirement for the North Carolina Environmental Education Certification Program.

October 21, 2003, 9am - 4pm PreK-8 Workshop [Kerr Lake State Recreation Area](#) (Satterwhite Point Community Building) Henderson, NC
To Register: [Lori Fleming 919-841-4060](#) lori.fleming@ncmail.net
A simple homework assignment will allow educators to earn 1.0 CEU credit for attending this workshop. Likewise - homework must be completed by participants to fulfill the 10-hour PLT Component I requirement for the North Carolina Environmental Education Certification Program.

Remember-- all PLT materials are free of charge to participants! Six-hour workshops will count towards certification after completing a simple homework assignment. Have a group of 10 educators or more that you think would be perfect for Project Learning Tree?? Give Renee, PLT State Coordinator, a call at 919-515-5518 to talk about setting up a PLT workshop in your area or visit <http://www.ces.ncsu.edu/plt/>

What it is: Up to \$500,000 (50 grants of up to \$10,000 each) is available to teachers who propose innovative one-year projects that will enhance science education in their schools and a minimum of 20 “mini-grants” of \$2,500 each are available in 2004. Toyota will award a total of \$550,000 in grants under the TAPESTRY program in 2004.



Who is eligible: Open to K-12 science teachers. Middle and high school classroom science teachers who spend at least 50% of their classroom time teaching science and teach a minimum of two science classes are eligible. Elementary teachers who teach some science in a self-contained classroom setting or as teaching specialists are eligible. Applicants must have at least three years science teaching experience prior to the present year. These guidelines apply to the project director only. Project staff may be teachers from any discipline or may be non-educators.

How to Apply:

1. Obtain the Toyota TAPESTRY Proposal Cover Form and program rules by calling 1-800-807-9852 or visiting our website at www.nsta.org/programs/tapestry and downloading an application.
2. Design and plan a one-year long project that centers on environmental science, physical science applications (applied physics, chemistry, and technology) or literacy and science.
3. Projects should demonstrate creativity, involve risk-taking, possess a visionary quality, and model a novel way of presenting science.
4. Projects should involve hands-on activities, have an interdisciplinary approach and relate science to students' lives.
5. Write a proposal according to the TAPESTRY rules. Required proposal components include a signed and completed Cover Sheet, Summary, Description, Rationale, Potential Impact, Evaluation Plan, Project Calendar, Budget (up to \$10,000), Project Staff Vitae, and letters of support. For the mini-grants, you need to submit a Cover Sheet, Summary, Description, Budget and one letter of support.
6. Mail completed Toyota TAPESTRY Proposal Cover Form, and typed proposal to:
Toyota TAPESTRY Grants c/o NSTA
1840 Wilson Blvd., Arlington, VA 22201-3000

Deadline: Received at NSTA by January 16, 2004

Awards: Grants: Up to 50 grants of up to \$10,000 each will be awarded this year. In addition, a minimum of 20 “mini-grants” of \$2,500 each will be awarded.

Trips: The 50 project directors of the larger grants will be flown to Atlanta for the Awards Banquet held during the NSTA National Convention, April 1-4, 2004.

*** Cathy McClusky of East Wake High School is the NC Ambassador for the Toyota TAPESTRY program. She is willing to help any teachers interested in submitting a proposal. You may reach her at cmcccluskey@wcpss.net.*

APS Careers in Physiology Brochure

The American Physiological Society (APS) announces a new Careers in Physiology color brochure that is available to all interested teachers and students. The brochure explains what physiology is, what physiologists do, why physiology is important, and how to become a physiologist. It also contains short biographies of several physiologists who are employed in a wide variety of physiology careers.

This brochure is part of a new careers outreach program of The American Physiological Society and was produced in conjunction with a totally new careers website (<http://www.the-aps.org>; click on "Careers"). The new website has information available to students at different educational levels. Included on the web site are physiology experiments for students to try, biosketches of many physiologists involved in different areas of physiology, extensive information on careers in

physiology and other life sciences, awards available to students, resources specifically for minority students, and much more.

For your free copy of the new APS Careers in Physiology brochure, send your request to education@the-aps.org. Up to 300 copies are available free to teachers and for career fairs. For additional copies, the cost is \$10/100.



***Fully Funded 3 Week
Study Visits to JAPAN***
for educators: grades 1-12

Apply on-line: www.iie.org/pgms/fmf
Information: 1-888-527-2636, fmf@iie.org
Deadline: December 10, 2003
Fulbright Memorial Fund Teacher Program

[Current Issue](#) | [Archives](#) | [NCSTA](#)

The Science Reflector
Newsletter of the North Carolina Science Teachers Association
PO Box 1783, Salisbury, NC 28145
[Elizabeth Snoke](#), Editor