

NORTH CAROLINA MUSEUM of NATURAL SCIENCES

UTOTES

An exciting teacher education program designed to:

Increase the use of the environment in the teaching of all subjects

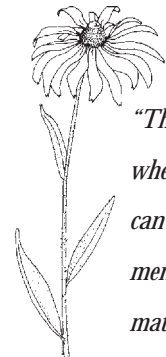
Positively influence attitudes of teachers and students toward living things

Develop site-based science leadership

Highlight and enhance areas on your school grounds that can be used to teach science in the outdoors



Students learn the importance of planting native plants



"The students seem more motivated when working on assignments when they can use the outdoors and their environment to complete written, reading, and math assignments."

— Fairview Elementary School



Learn how to attract birds and butterflies to your school grounds.

"My students now have a better knowledge of wildlife and improved observation skills."

— West Greene Elementary



Students engaged in bird study.

OPEN SEVEN DAYS A WEEK
Monday through Saturday: 9:00 a.m.–5:00 p.m.
Sunday: Noon–5:00 p.m.

ADMISSION IS FREE!



11 West Jones Street
Raleigh, NC 27601-1029


919.733.7450
toll free 1.877.4NATSCI
www.naturalsciences.org

Betsy Bennett, Director



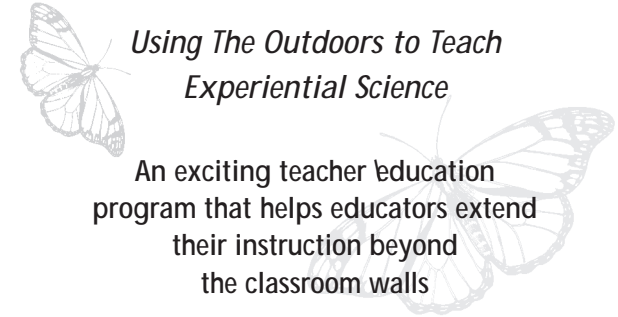
UTOTES is a program of the North Carolina State Museum of Natural Sciences. UTOTES was funded in part by the **National Science Foundation**.

Opinions expressed are those of the authors and not necessarily those of the foundation.

 A Division of the Department of Environment and Natural Resources. Dee Freeman, Secretary; Beverly Eaves Perdue, Governor. DENR Information 1.877.623.6748

NORTH CAROLINA MUSEUM of NATURAL SCIENCES

UTOTES



Using The Outdoors to Teach Experiential Science

An exciting teacher education program that helps educators extend their instruction beyond the classroom walls



Tagging a monarch butterfly

"I have become more aware of my environment and more compassionate of the living things around me. This shows in my teaching."

— G.R. Whitfield Elementary School

NORTH CAROLINA
MUSEUM of NATURAL SCIENCES

Why?

Just outside the walls of your classroom is an incredible educational resource—a world full of animals, plants, and their habitats. Living things have the power to motivate students and let them truly experience learning. Through the program Using The Outdoors to Teach Experiential Science (UTOTES), teachers gain confidence and knowledge about their local environment and experience hands-on educational strategies to use with their students. UTOTES will open your eyes to the hidden magic on your school grounds.



Initiated in 1991, this award-winning teacher education program has reached thousands of educators across North Carolina. UTOTES seeks to change the way teachers teach by having them:

- Increase use of the outdoors as a learning environment
- Learn group process skills to use in their teaching
- Integrate the curriculum through the use of science as a content area
- Participate in strategies that model an inquiry-based and/or experiential method of teaching

How?



A group of 16 to 24 staff members participates initially at each selected school. The year-long program includes six different teacher education workshops (including one for creating a wildlife habitat selected by the school). Topics may include: attracting butterflies and birds, identifying trees and wildflowers, observing and recording seasonal changes, wetlands on school grounds, integrating the outdoors into curriculum, and creating nature journals.

UTOTES Sessions:

- 1 **Initial Site Visit** — Meet with administrators, lead teachers and community representatives to explain program, discuss plans and schedule, examine options for habitat project, and assess grounds.
- 2 **Using the School Grounds as a Learning Environment** — Divide participants into cooperative-learning teams. Conduct activities focusing on plants and animals found on or around school buildings and grounds (i.e., mud daubers, spiders and their webs, butterflies and their caterpillars, native trees). Introduce nature journaling as a thread for the entire program and explore literacy connections appropriate to the school grounds environment. Discuss options for a wildlife habitat feature and set schedule for planning and installing the selected project.
- 3 **Nature in Winter** — Focus on seasonal changes since the previous workshop and where to look for signs of nature in winter. Activities include identifying and observing birds, locating and identifying animal tracks and signs, and creating indoor lessons designed around natural objects.
- 4 **The Magic of Spring** — Observe the emergence of spring by learning about bird nests, amphibian life cycles, wildflower identification, pollination, and sounds of nature (bird songs, etc.). Program evaluation takes place at this session or Session 5, whichever is completed last.
- 5 **Creating a Place for Wildlife and Learning** — Install habitat feature selected in Session 2 (Museum instructor, school staff, and students). Discuss maintenance tips and curriculum-correlated activities. Program evaluation takes place at this session or Session 4, whichever is completed last.
- 6 **The Museum (or local natural area) as a Resource for Teachers** — Travel to the N.C. Museum of Natural Sciences to learn about exhibits and programs, or travel to a natural area near your school for a field experience.

Continuing UTOTES:

Schools continue to develop outdoor habitats and increase their emphasis on outdoor experiential learning in consultation with Museum professionals and the network of UTOTES teachers. Schools are eligible for additional Museum programming such as Museum in the Schools resource boxes, local staff development opportunities, and consultations.

What?

UTOTES seeks to improve elementary science education by increasing confidence in using the outdoors as a teaching resource and by improving school grounds for hands-on learning. Educators can use existing and enhanced wildlife habitats on their school grounds to teach all subject areas.

UTOTES on-site project options include:

Butterfly gardens
Miniponds
Bog gardens
Bird feeding and observation areas
Classroom nature stations



Participating schools receive:

- Staff development (about 20 hours)
- Information about common plants and animals on school grounds
- Materials and instruction for creating selected wildlife habitats
- Site-specific suggestions for literacy connections
- Reference materials and field equipment for students
- Inspiration and support for using the outdoors to teach all subject areas
- Strategies for integrating technology and literacy into science curriculum
- Ideas for motivating students
- Leadership for conducting outdoor activities
- Ongoing connection with the staff and resources of the Museum

Who?

All elementary schools in North Carolina are eligible. For an application, see contact information below.

Criteria for selection include:

- Full commitment of the school administration and teaching faculty
- Evidence of business, community, and parental support
- Participation of at least one school administrator in all workshop sessions



Recommended Credits

This workshop series is recommended for two hours of renewal credit. Participants will receive a certificate of course completion. Please contact your local school district for prior approval.

North Carolina Environmental Education Certification Program

UTOTES has also been approved by the N.C. Environmental Certification Review Committee as an Eligibility Criteria I Instructional Workshop. For more information on the certification program, contact the N.C. Office of Environmental Education at 919.733.0711 or visit www.ee.enr.state.nc.us/.

For more information about UTOTES and other teacher education opportunities, please contact:

Mike Dunn
Coordinator of Teacher Education
N.C. Museum of Natural Sciences
11 West Jones St.
Raleigh, NC 27601-1029
919.733.7450, ext. 620
mike.dunn@ncmail.net
www.naturalsciences.org