



Daniel Stowe Botanical Garden

# Secondary Programs

Educator  
Guide

*2009 - 2010*

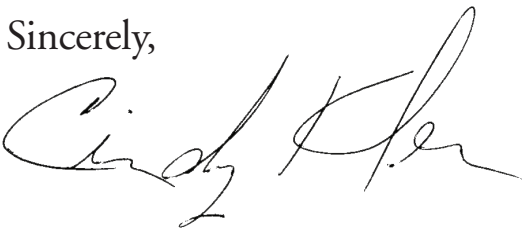


# Dear Educator,

**T**hank you for considering Daniel Stowe Botanical Garden as a place for your class field trip. Our beautiful gardens and outdoor environment provide an ideal 'living laboratory' that excites, inspires and engages students to learn about plants, nature and the environment. Our education programs offer fun, hands-on and innovative teaching techniques that address curricular standards and instill in students a knowledge and appreciation for nature.

If I can be of any assistance in your planning, please contact me or our Reservation Coordinator at 704 829-1252 to register your class (please register early as program dates fill quickly). I look forward to seeing you and your students here at the Garden!

Sincerely,



Cynthia D. Klemmer, Ph.D.

*Director of Education*

## **Education Department Contact Information:**

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## Guided Field Trips for Secondary Ed



**H**ands-on engagement is important for secondary students, too. The programs described below will ‘hook’ students with fun activities that also support required curricular elements. Programs are 1-1/2 hours in length—divided into two 45 minute segments to combine field experiences with hands-on activities and discussion. Bring your curriculum to life by bringing your students to the Garden and immersing them in a plant-filled experience!

*Cost:* \$125 per class

*Chaperones:* At least one adult chaperone required for every 10 children. Teachers/chaperones free up to a ratio of 1 teacher for every 5 students. Beyond a 1:5 ratio, a chaperone fee of \$6 per teacher/chaperone will be charged at admission/entry.

### Botany Basics

The Garden provides a great opportunity for hands-on botany! From the macro to the micro, students will experience the thrill of discovery and the exploration of diversity. Students will compare the flowers of monocots and dicots, dissect flowers, examine flowers under magnification to find the fruit (ovaries) and seeds (ovules), and record notes and sketch their findings in Garden journals. A Garden walk will extend the botanical experience as students look for specific examples of monocots,

dicots, and floral diversity to illustrate key aspects of the plant community.

*Key Concepts:* Botany, dissection, floral morphology, pollination, germination, sexual and asexual propagation

### Ecosystems and Adaptations

Plants have adapted to survive in a wide range of conditions and factors, both biotic and abiotic. Using the Garden’s Orchid Conservatory and abundant natural areas, students will discover what some of these factors are, the difference between a population and a community of plants, and how plants have adapted to survive in four different ecosystems: tropical, desert, woodland, and meadow. A fun scavenger hunt format will allow them to explore on their own to search out key adaptations and hypothesize about some additional ones based on their own observations.

*Key Concepts:* Ecosystems, tropics, deserts, woodlands, meadows, plant adaptations, biotic vs. abiotic, populations vs. communities

## Program Scheduling and Fees

### Registration

Registration fees are due at time of registration and must be paid in full at least two weeks prior to the program. Confirmation packets, including Chaperone Guides and pre-visit materials will be mailed upon receipt of registration fees.

### Self-Guided Programs

#### Scheduling:

Self-Guided programs provide for maximum flexibility, and can be scheduled Monday-Friday between 9 a.m. and 4 p.m.

#### Program Fees:

\$3 per student; \$6 per teacher/chaperone



Daniel Stowe  
Botanical Garden

6500 South New Hope Road

Belmont, NC 28012

(704) 829-1252

[www.DSBG.org](http://www.DSBG.org)

*A Garden for all Seasons!*

# General Programs for All Ages

These programs feature *The Orchid Conservatory* and the Garden's fall exhibit, *Something's A-Flutter*. The programs are flexible, and designed to accommodate a wide range of grade levels and interests. Programs will be adapted to fit the interests and skill levels of your students—please specify a grade level or age range when registering.

## **Something's A-Flutter at the Garden: Butterfly Programs for School Groups**

Available Sept. 4 - Oct. 16

*(adaptable for all grades—please specify when registering)*

Butterflies are some of nature's most beautiful insects, and the Garden's *Something's A-Flutter* exhibit provides a perfect place to see them. Students will review the characteristics of an insect and the fascinating life cycle process called metamorphosis. Students will experience butterflies up close and personal in *The Orchid Conservatory*, learn to identify several native species, and then learn more during a special Butterfly Walk through the Garden.

**Key Concepts:** *Insects, metamorphosis, life cycles, butterflies, butterfly behaviors, native Carolina butterflies*

*For additional insect-related programming, please see **Insect Exploration** on page 2 of the **K-5 Guided School Programs Brochure**. This engaging program supports curricular standards, offers a chance to work with live insects, and is offered throughout the year.*



## **Orchid Conservatory Programs**

Available Oct. 19, 2009 – June 2010

The Garden's Orchid Conservatory presents an ideal environment for the study of tropical ecosystems and the plants that are specially adapted to live in them. Celebrate this wonderful resource for learning through a special visit with your students. The two programs described below are designed for flexible use across a range of grade levels, and can be adapted to suit younger or older grade levels—just let us know during registration.

### **Plants and People (Grades K-2)**

Vanilla and chocolate are just two tropical plants that we commonly use. Explore the Garden and Orchid Conservatory to discover these and many other tropical plants that serve important uses as food, medicine or economic value. Afterward, each student will create their own tropical plant terrarium to take with them.

### **Tropical Ecosystems and Plant Adaptations (Grades 3-5)**

Tropical ecosystems are fascinating! Using the Orchid Conservatory as a living laboratory, students will learn characteristics of a tropical environment and then conduct their own exploration to discover some of the unique ways tropical plants have adapted to survive and compete successfully. In addition, each student will create their own mini-terrarium and plant a tropical plant to take home with them.

*Please note this program is well suited for advanced or secondary grade levels, as discussion of the ecosystems and the complexity of plant adaptations can vary widely.*