join us at **SARAH P. DUKE GARDENS**

**FALL & WINTER 2015-2016**

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Photo credits:

Cover photo by Leonard Beeghley
Welcome to autumn at Duke Gardens. This summer has been a busy one in the Gardens. Plan a visit this fall to:

- Walk along the stunning new McNabb Family Bridge and Stream in the Blomquist Garden of Native Plants.
- Enjoy the sound of falling water in the multiple recirculating streams and waterfalls of a spectacular new Japanese Garden.
- Practice your performance skills on the stage of the new Fisher Amphitheater.
- See the beginnings of the new Piedmont Prairie in the Blomquist Garden of Native Plants.

Your experiences at Duke Gardens are enriched by these visible projects. Gardens also build connections to distant places, as in the Japanese Garden. They foster stewardship by focusing on the plants and ecologies that have shaped North Carolina across time, as in the Blomquist Garden. The all-but-invisible daily care of the Gardens also adds to all the beauty you enjoy here. The staff and volunteers are always busy planting and tending to each and every plant, path or bench. Take a moment this season to stroll through the Gardens and discover your favorite place.

In this publication you can learn all the ways to become involved at the Gardens:

- Become a Duke Gardens Friend, and help build our future (see page 40).
- Treat a friend to a guided tour (see page 4).
- Invest time and energy into the Gardens by volunteering (see page 6).
- Bring your children to discover ‘Inventions from Nature’ (see page 13).
- Complete your fall plantings with purchases from the September 26 plant sale (see page 8).
- Explore the science of the Gardens at the three Exploration Stations we will have on Saturdays in the Gardens this fall (see page 9).

There is such a wealth of programs and presentations this season that it is difficult to choose. I hope you find one that brings you here to the Gardens.

Enjoy the season,

Jan Little
VISITING DUKE GARDENS

You are welcome to enjoy the Gardens at your own pace, and the Visitor Guide & Map will give you information about all four areas of Duke Gardens. Additional information is available; please check at the Doris Duke Center or the Gothic Gate Kiosk. In peak seasons please allow extra time for parking (see parking information at right).

PLEASE REGISTER YOUR GROUP VISIT: We ask that all groups of 15 or larger register with the Gardens so we may coordinate your activities with other groups scheduled for the same day. Please call 919-668-1707.

WALKING TOURS: Celebrate the seasons and enjoy a beautiful and award-winning garden. Sarah P. Duke Gardens is frequently recognized for its world-class horticulture and we are regularly named as a top destination by readers of North Carolina publications.

The best way to explore this garden is on foot, led by a knowledgeable Gardens docent. A personalized walking tour gives you the chance to explore all the diverse areas of Duke Gardens at your own pace. Smell the roses, enjoy the hidden gems and discover your favorite space in the Gardens.

WALKING TOURS SCHEDULE AND FEES: plan for 1 to 1½ hours, as your schedule allows
• Offered Tuesdays through Fridays at 10 am and 2 pm from March 15-Nov 15.
• $8 per person; advance reservations held with payment, and we encourage reserving in advance.
• These tours fill up rapidly, please call ahead 919-668-1707 to make a reservation.

TROLLEY TOURS: The trolley tours take you along the central path in the Gardens so you see the blooms of the day and learn more about the Gardens’ history. This tour cannot encompass the entire gardens but will give you a beautiful overview.

TROLLEY TOURS SCHEDULE AND FEES: plan for 1 hour
• Offered Tuesdays through Fridays at 10 am and 2 pm from March 15-Nov. 15.
• $8 per person; advance reservations held with payment, and we encourage reserving in advance.
• No minimum but a maximum of 5 people in a shared trolley.
• All participants must be seated with a seatbelt; children may not ride on an adult’s lap and car seats are not permitted.
• These tours fill up rapidly, please call ahead 919-668-1707 to make a reservation.

For tour information and reservations please call 919-668-1707 or email gardenseducation@duke.edu.
SARAH P. DUKE GARDENS IS OPEN FROM 8 AM TO DUSK, 365 DAYS A YEAR. 
ADMISSION: NO CHARGE; DONATIONS ARE APPRECIATED. 
DORIS DUKE CENTER HOURS: 9 AM-6 PM MON.-FRI.; 9 AM-5 PM SAT.; NOON-5 PM SUN., EXCEPT HOLIDAYS. 
GENERAL INFORMATION: 919-684-3698, OR GARDENS.DUKE.EDU

**TERRACE CAFÉ:** Serves sandwiches, salads and ice cream. Located in the cottage on the left as you enter the Terrace Gardens via the pergola. 

*Café hours (seasonal and weather permitting):* Mon.-Fri., 11 am-3 pm / Sat., 10 am-4 pm / Sun., noon-4 pm. Groups may arrange lunches at least three days in advance by calling 919-660-3957.

**PARKING:** Parking fees apply on Monday-Friday from 8 am to 5 pm, and Saturday/Sunday from 1 pm to 5 pm. Parking passes are available for purchase from the machines located in each parking lot. If a machine is malfunctioning, please go to the information desk inside the Doris Duke Center.

*Weekend parking update:* Due to growing visitation and limited parking on site, Duke Gardens now offers free parking in a nearby overflow lot (Duke University H Lot) at the corner of Yearby Avenue & Anderson Street. The lot is a 5-minute walk from Duke Gardens’ main entrance. It will be open 8 am to 8 pm on Saturdays, Sundays & holidays.

Duke Gardens is an increasingly popular attraction for visitors from around the world. Please help us care for this botanic garden, and ensure that all visitors enjoy their time here, by refraining from the following:

- Climbing trees, swimming or wading
- Using sports equipment, balls, balloons or kites
- Feeding the wildlife, except for approved duck food (purchase in The Terrace Shop)
- Riding bicycles, skates, skateboards, etc.
- Smoking

Please also abide by the following policies:

- Keep dogs leashed (6-foot maximum) and out of plantings
- Groups of 15 or more, please register in advance at 919-668-1707
- Portrait photography is by permit only
- Leave plants and all plant parts for everyone to enjoy
- Carry out what you carry in

A full list of policies is posted at entrances and online. Thank you for your cooperation.
VOLUNTEERING IN THE GARDENS

Be a Force of Nature — Volunteer

Expand your knowledge of the natural world as you help connect people with the Gardens. Volunteers are essential at Sarah P. Duke Gardens, helping to create a better garden and a better community. Bring your interest, energy, knowledge and passion to Duke Gardens and help make each guest’s visit more beautiful and enriching.

Whether you are interested in gardening, visitor services, administrative support or education, volunteering at Duke Gardens is a way to give back to your community. You will meet people of similar interests, learn new skills and have fun.
2016: Celebrating 25 years of volunteer service at Duke Gardens

**BENEFITS TO VOLUNTEERS:**

- The satisfaction of supporting a public garden and furthering the Gardens’ mission
- Increased gardening skill/knowledge
- Invitations to Gardens events
- Education and gift shop discounts

If you are interested in joining the volunteer family at Duke Gardens, contact director of volunteer services Chuck Hemric at 919-668-1705 or chemric@duke.edu to enroll in the next volunteer orientation and complete an application at gardens.duke.edu/support/volunteer.
FREE EVENTS & SPECIAL PROGRAMS

SATURDAY, SEPTEMBER 26
DUKE GARDENS FALL PLANT SALE

The fall plant sale will feature rare and unusual plants and bulbs, as well as some standards every southern garden should have. A wide selection of Duke Gardens propagated plants and hand-picked material from local suppliers will be offered.

GARDENS MEMBERS PREVIEW, SATURDAY, SEPT. 26, 8-9 AM
PUBLIC PLANT SALE, SATURDAY, SEPT. 26, 9 AM-NOON
Further information at gardens.duke.edu. Members discount does not apply.
SATURDAYS
EXPLORATION STATION:
Make and take activities for all

Free! Explore the science of plants and animals with seasonal activities for you and your family. Look for the “Exploration Stations” throughout the Gardens and enjoy seasonal demonstrations, experiments and hands-on projects at each station.

SATURDAYS FROM SEPT. 26-OCT. 24, 1-3 PM • Free drop-in event. Parking fees apply.

THURSDAYS & SATURDAYS
NATURE STORYTIME

Free! Enjoy the outdoors with a story read aloud in the Gardens. Nature-themed stories are followed by a related activity or garden walk.

FOR CHILDREN AGES 3-6. ADULT CHAPERONE REQUIRED.
2ND SATURDAYS, SEPT. 12 AND OCT. 10, 10:30-11:30 AM
3RD THURSDAYS, SEPT. 17 AND OCT. 15, 10:30-11:30 AM
FREE EVENTS & SPECIAL PROGRAMS

NOVEMBER 21-22
FALL FOR ORCHIDS

Presented by the Triangle Orchid Society and Duke Gardens. Enjoy a beautiful show with hundreds of blooming orchids! This show by members of the Triangle Orchid Society is sanctioned by the American Orchid Society and will include judged plants of many species and varieties. In addition to enjoying the display, you will have the opportunity to learn from experts in workshops about growing, repotting and caring for orchids. With your newfound knowledge you may want to purchase plants and growing supplies available at the show.

Saturdays, Nov. 21, 10 AM-5 PM, & Sundays, Nov. 22, 1-4 PM
Free drop-in event. Parking fees apply after 1 pm Saturday and Sunday.
For more information, please visit triangleorchidsociety.org or gardens.duke.edu

DECEMBER 19
HOLIDAY CELEBRATION AT THE GARDENS:
Make and take a variety of crafts from winter holidays around the world

Activities include:
• Peanut butter bird feeder
• Diwali (Hindu festival of light) rangoli patterns
• Chinese New Year lanterns
• Paper snowflakes
• A menorah of your own
• Lakota winter count

Saturdays, Dec. 19, Noon-4 PM • LOCATION: DORIS DUKE CENTER
Free drop-in event. Parking fees apply.
MARCH 2016

ART AND NATURE: Artwork inspired by the Culberson Asiatic Arboretum at Duke Gardens

Enjoy an artist’s perspective in artwork that celebrates the beauty of the Culberson Asiatic Arboretum. This Gardens area continues to be enriched and in 2015 we unveiled a new and quite spectacular arboretum garden area. This garden, as well as other unique views of the Asiatic Arboretum, will be featured in two- and three-dimensional work by local artists.

FREE DROP-IN EXHIBIT FOR ALL AGES. ADULT CHAPERONE REQUIRED.
SATURDAY, MARCH 12, 4:30-6 PM, PLEASE JOIN US FOR AN ARTISTS’ RECEPTION
SATURDAY-THURSDAY, MARCH 12-17, EXHIBIT OPEN FROM 9 AM-4 PM
LOCATION: DORIS DUKE CENTER
Parking fees apply on weekdays from 9 am to 5 pm and Saturday/Sunday after 1 pm.

Online & at the Gardens

PROJECT BUBDBURST: Timing is Everything

Plants tell a story about our changing climate. Phenology is the science of tracking a plant. The timing of a plant leafeing, flowering and fruiting is affected by temperature, rainfall and day length.

A worldwide network of Citizen Scientists is being created to track the changes in plant seasons, and you can join through Duke Gardens. The data will go into an international resource, the Plant Phenology Network, to assist scientists studying climate.

Look for the Project Budburst icon on our website to help collect the information from plants in North Carolina. Or go to budburst.org/gardens-duke.
INSECTS ALIVE!
Monday, September 14

Prowl through the Gardens looking for insects and learn about their many different life stages. We will practice observing, recording and identifying skills.

**Series!**

**SECTION A:** CHILDREN AGES 7-9: 10:30 AM-NOON  
**SECTION B:** CHILDREN AGES 4-6: 10:30-11:30 AM  
LOCATION: PLEASE MEET AT THE DORIS DUKE CENTER  
• ADULT CHAPERONE WELCOME TO STAY  
FEE: $8 PER SECTION; GARDENS MEMBERS $7  
• REGISTER FOR 5 OR MORE CLASSES, FEE: $7/$6

TURTLES, FROGS AND POLLYWOGS
Monday, September 28

Become a herpetologist for a day and learn about the habits and habitats of our reptile and amphibian friends. Explore the Gardens and go on a search for basking turtles, jumping frogs, and wiggling pollywogs.

**Series!**

**SECTION A:** CHILDREN AGES 7-9: 10:30 AM-NOON  
**SECTION B:** CHILDREN AGES 4-6: 10:30-11:30 AM  
LOCATION: PLEASE MEET AT THE DORIS DUKE CENTER  
• ADULT CHAPERONE WELCOME TO STAY  
FEE: $8 PER SECTION; GARDENS MEMBERS $7  
• REGISTER FOR 5 OR MORE CLASSES, FEE: $7/$6

ANIMAL TRACKS AND HABITATS
Monday, October 12

Many animals are very shy and secretive. Nevertheless you can read the signs and tracks they leave behind and know quite a lot. Join us and learn how to be an animal tracker, carefully observing and identifying the clues and signs.

**Series!**

**SECTION A:** CHILDREN AGES 7-9: 10:30 AM-NOON  
**SECTION B:** CHILDREN AGES 4-6: 10:30-11:30 AM  
LOCATION: PLEASE MEET AT THE DORIS DUKE CENTER  
• ADULT CHAPERONE WELCOME TO STAY  
FEE: $8 PER SECTION; GARDENS MEMBERS $7  
• REGISTER FOR 5 OR MORE CLASSES, FEE: $7/$6
INVENTIONS FROM NATURE
Monday, October 26

Through the ages human beings have borrowed clever ideas and innovations from nature to make things as diverse as Velcro, zippers and more. This class will take you on a whirlwind tour of inventions from nature — perhaps you will find something to adapt into an “invention” of your own!

SECTION A: CHILDREN AGES 7-9: 10:30 AM-NOON
SECTION B: CHILDREN AGES 4-6: 10:30-11:30 AM
LOCATION: PLEASE MEET AT THE DORIS DUKE CENTER • ADULT CHAPERONE WELCOME TO STAY
FEE: $8 PER SECTION; GARDENS MEMBERS $7 • REGISTER FOR 5 OR MORE CLASSES, FEE: $7/$6

BIRDS, BIRDS, BIRDS!
Monday, November 9

Birds may be the living descendants of dinosaurs. Discover how we know this and learn more about how they fly, reproduce, and succeed in so many different habitats. Put on your binoculars and let’s go!

SECTION A: CHILDREN AGES 7-9: 10:30 AM-NOON
SECTION B: CHILDREN AGES 4-6: 10:30-11:30 AM
LOCATION: PLEASE MEET AT THE DORIS DUKE CENTER • ADULT CHAPERONE WELCOME TO STAY
FEE: $8 PER SECTION; GARDENS MEMBERS $7 • REGISTER FOR 5 OR MORE CLASSES, FEE: $7/$6

MATH IN THE GARDENS
Monday, November 30

Math is hiding all around us in the patterns of nature. We will count, measure, and multiply with real-world objects as we observe the patterns of math in living things and human-built spaces.

SECTION A: CHILDREN AGES 7-9: 10:30 AM-NOON
SECTION B: CHILDREN AGES 4-6: 10:30-11:30 AM
LOCATION: PLEASE MEET AT THE DORIS DUKE CENTER • ADULT CHAPERONE WELCOME TO STAY
FEE: $8 PER SECTION; GARDENS MEMBERS $7 • REGISTER FOR 5 OR MORE CLASSES, FEE: $7/$6
HOMESCHOOL & FAMILY PROGRAMS

CHOOSE YOUR OWN ADVENTURE SCIENCE CLUB

Experiment, explore and investigate to draw logical conclusions. Then test those conclusions! Follow your own interests in this project-based, hands-on learning environment. Topics could range from DIY sciences and engineering to art, illustration, photography and nature study.

FOR CHILDREN AGES 10-13
6 TUESDAYS: SEPT. 15 & 29, OCT. 13 & 27, NOV. 10 & DEC. 1, 2-3:30 PM
LOCATION: PLEASE MEET AT THE DORIS DUKE CENTER
FEE: $50; GARDENS MEMBERS $40

GARDENING FOR FAMILIES

From seed to harvest, learn how a garden grows in this hands-on class. We will garden in the Charlotte Brody Discovery Garden, planting and caring for plants to learn where our food comes from. This fall session will feature harvest tasting and simple combinations of fresh vegetables from the garden. No strollers or non-registered siblings, please.

FOR CHILDREN AGES 4-6: ADULT CHAPERONE WELCOME TO STAY.
6 TUESDAYS: SEPT. 15, 22, 29 & OCT. 6, 13 & 20, 1:30-3 PM
LOCATION: PLEASE MEET AT CHARLOTTE BRODY DISCOVERY GARDEN ENTRANCE PAVILION.
FEE: $60 PER 6-WEEK SESSION; GARDENS MEMBERS $48
NATURE FOR SPROUTS: Explore the Gardens

Explore the outdoors at Duke Gardens with your child. Each week we will have stories, songs, movement, observation and hands-on, creative projects that explore the Gardens. Sign up for one or all four sessions.

FOR CHILDREN AGES 3-5. ADULT CHAPERONE REQUIRED.

SECTION A: FRIDAY, SEPT. 11, 10:30-11:30 AM
SECTION B: FRIDAY, SEPT. 18, 10:30-11:30 AM
SECTION C: FRIDAY, SEPT. 25, 10:30-11:30 AM
SECTION D: FRIDAY, OCT. 2, 10:30-11:30 AM
LOCATION: PLEASE MEET AT THE DORIS DUKE CENTER
FEE: $8; GARDENS MEMBERS $7. • REGISTER FOR ALL SESSIONS: $28; GARDENS MEMBERS $24

RAISING EASTERN BLACK SWALLOWTAIL BUTTERFLIES

Lori Carlson, Duke Gardens docent

Learn how to raise eastern black swallowtail butterflies through their winter hibernations for release in your own back yard. Lori will work with you to explore the lifecycle and how to care for and feed the butterflies. The class will end with a scavenger hunt for children to find butterflies and host plants, while parents work directly with Lori to complete their understanding of butterfly care. Each child will receive a butterfly box, host plants, a caterpillar or chrysalis and Lori’s reference booklet to take home. Together your family can enjoy watching one of nature’s many miracles.

FOR CHILDREN AGES 5-9. ADULT CHAPERONE REQUIRED.

SATURDAY: SEPT. 12, 10-11:30 AM • LOCATION: DORIS DUKE CENTER
PARTICIPANT LIMIT: 10 CHILDREN • FEE: $35 PER CHILD. INCLUDES ALL KIT MATERIALS TO TAKE HOME.
RAISING MONARCH BUTTERFLIES

Lori Carlson, Duke Gardens docent

Monarch butterflies are inspiring. Four life stages for each butterfly and four generations per year! It’s the late fall generation that sets off on its amazing migration south for the winter, returning to our neighborhoods in the spring to begin the process all over. Learn about this as Lori takes you through the life of a monarch and explains how to house and feed them. Each participant will receive a butterfly box, host plants, a caterpillar or chrysalis (depending upon season) and Lori’s booklet of reference materials to take home.

FOR CHILDREN AGES 10-15.
SATURDAY: OCT. 3, 10-11:30 AM • LOCATION: DORIS DUKE CENTER
PARTICIPANT LIMIT: 10 CHILDREN • FEE: $35 PER CHILD. INCLUDES ALL KIT MATERIALS TO TAKE HOME.

RAISING BUTTERFLIES: Monarch and Eastern Swallowtails

Lori Carlson, Duke Gardens docent

Explore the curious lifestyle of butterflies. You will learn how to house and care for them through multiple life stages until you release them as adults. Lori will discuss the four to five life stages that precede the adult butterfly emerging in all its colorful wonder. Each participant will receive a butterfly box, host plants, one species of caterpillar or chrysalis (depending upon season) and Lori’s booklet of reference materials to take home.

FOR PARTICIPANTS AGES 16 THROUGH ADULT.
TUESDAY: SEPT. 22, 6:30-8:30 PM
LOCATION: GREENHOUSE CLASSROOM
PARTICIPANT LIMIT: 15 • FEE: $35 PER PARTICIPANT. INCLUDES ALL KIT MATERIALS TO TAKE HOME.
SPECIAL EVENTS FOR FAMILIES

SATURDAYS
EXPLORATION STATION:
Make and take activities for all

Free! Explore the science of plants and animals with seasonal activities for you and your family. Look for the “Exploration Stations” throughout the Gardens and enjoy seasonal demonstrations, experiments and hands-on projects at each station.

5 SATURDAYS FROM SEPT. 26-OCT. 24, 1-3 PM • Free drop-in event. Parking fees apply.

THURSDAYS & SATURDAYS
NATURE STORYTIME

Free! Enjoy the outdoors with a story read aloud in the Gardens. Nature-themed stories are followed by a related activity or garden walk.

FOR CHILDREN AGES 3-6. ADULT CHAPERONE REQUIRED.
2ND SATURDAYS, SEPT. 12 AND OCT. 10, 10:30-11:30 AM
3RD THURSDAYS, SEPT. 17 AND OCT. 15, 10:30-11:30 AM
LOCATION: PLEASE CHECK AT THE FRONT DESK OF THE DORIS DUKE CENTER FOR LOCATION.
Free drop-in event. Parking fees apply.

DECEMBER 19
HOLIDAY CELEBRATION AT THE GARDENS:
Make and take a variety of crafts from winter holidays around the world

Free! Activities include: Diwali (Hindu festival of light) rangoli patterns
Peanut butter bird feeder • Chinese New Year lanterns • Paper snowflakes
A menorah of your own • Lakota winter count

SATURDAY, DEC. 19, NOON-4 PM • LOCATION: DORIS DUKE CENTER
Free drop-in event. Parking fees apply.

Online & at the Gardens
PROJECT BUDBURST: Timing is Everything
Plants tell a story about our changing climate. Phenology is the science of tracking a plant. The timing of a plant leafing, flowering and fruiting is affected by temperature, rainfall and day length.

A worldwide network of Citizen Scientists is being created to track the changes in plant seasons, and you can join through Duke Gardens. The data will go into an international resource, the Plant Phenology Network, to assist scientists studying climate.

Look for the Project Budburst icon on our website to help collect the information from plants in North Carolina. Or go to budburst.org/gardens-duke.
All same-age groups are welcome to register for these programs. Children’s groups with a variety of ages should contact us to arrange a program specifically suited to your group.

DUKE GARDENS SCHOOL PROGRAMS

Our school programs introduce students to the wonders and complexities of our natural world. Each program is age-appropriate and supports the North Carolina Standard and Extended Course of Study. The programs are led by skilled docents familiar with the Gardens and the programs. Please let us know how we can extend your classroom study through a garden visit and be an active partner with your school.

GUIDED GARDENS SCHOOL PROGRAMS: Available Tuesday through Friday. Correlating standards are listed below. Each program is planned for 1 to 1 ½ hours, or enriched and extended if your schedule allows. Fee of $3 per student, with the exception of Garden Walk ($1 per student); $30 minimum.

SELF-GUIDED GROUPS IN THE GARDENS: Advance registration is required so we may coordinate your visit with other schedules. Self-guided groups are welcome in all areas of the Gardens except the Blomquist Garden. Tours of the Blomquist Garden of Native Plants are only available when led by trained Gardens docents. This Garden contains many rare and endangered plants whose roles in nature are best understood when explained by our docents.

HOW TO REGISTER: Registration is required for all groups planning to visit the Gardens. Thanks for working with us to register your group; collaboration helps us prepare and provide the best experience for your students. We will accommodate your visit on a first-come, first-served basis. Once we reach capacity those groups without pre-registration may be asked to re-schedule their visit.

CHAPERONES: Adult chaperones are required for all youth groups. We recommend a ratio of 3 chaperones per 15 students.

WEATHER: We do take groups out in the rain, unless there is threatening weather that includes lightning; in that case we will reschedule.

CANCELLATION POLICY: You may cancel your enrollment and receive a refund of your fee up to a week before the date of your program. Any program canceled by Duke Gardens will result in a complete refund.

Call 919-668-1707 or email gardenseducation@duke.edu.

ALL GRADE LEVELS

- **GARDENS EXPLORATION**: Explore different areas of the Garden as you learn about seasonal topics. Topics can be tailored to fit your classrooms’ current areas of study.
- **DISCOVERY GARDEN**: Introduce students to agriculture and sustainable gardening. What’s the difference between a fruit and a vegetable? What parts of plants do we eat? See bees, chickens, an orchard, vegetables and fruits, a historic tobacco barn and more.
- **A GARDEN WALK**: For larger groups with limited time. A guided walk to introduce students to the four major areas of the garden. This program is planned for 1 hour or less. Fee of $1 per student.
PRE-K – K

• FARM AND FOLK TALES: Learn about fruits, vegetables and animals in the garden through stories and exploration.

• SENSE-ATIONAL STROLL: Engage all of your senses as you touch, smell, hear, taste and see your way through the garden on this guided walk.

• BIRDS AND BUTTERFLIES: Look up to discover the amazing world of winged wildlife in the garden. Through song and movement, learn how birds and butterflies are born.

• WORMS: Take a close look at life underground and learn how wiggling worms help the garden grow. What is a worm’s life cycle? How do they move? What do they eat? Learn this and more.

• KNOCK, KNOCK. WHO’S THERE?: Tiptoe through the garden to find signs of animals at home. Learn who lives in the ground and who lives in a tree.

FIRST GRADE

• HABITAT HUNTERS: (meets standards 1.L.1 / 1.L.2, Math 4.01, Language Arts 2.09) What do plants and animals need to survive? Go on a scavenger hunt to find animal homes in the Gardens. Find resources and learn how living things get what they need.

SECOND GRADE

• BUG’S LIFE: (meets standards 2.L.1.2, Math 4.01, Language Arts 4.04) What is an insect? Where do they live? Students will learn about and compare the life cycles of garden insects by studying them in their natural habitat.

• FOR DPS STUDENTS: DOUBLE EXPOSURE: Connecting Science and Art at Duke Gardens and Nasher Museum of Art. An innovative program for 2nd grade school groups with a full day experience that connects science and art. Students visit both Duke Gardens and Nasher Museum of Art. To register, go to http://nasher.duke.edu/k-12/#k-12-tours or contact the Nasher’s education office at 919-684-1169.

THIRD GRADE

• SOIL CITY: (meets standards 3.L.2.4, Math 4.01, Language Arts 3.03) Explore the world of ants, earthworms, pillbugs and other soil dwellers. Students examine basic soil properties throughout the garden and discover how soil supports the growth and survival of living things.

• PLANT POWER: (meets standards EX.3.L.2, Math 4.01, Language Arts 2.08) Take a trip through the life cycle of a plant and learn the different plant structures and how they work to help the plant grow and thrive.

• HAIKU TRAIL INTO THE GARDENS: (meets standards 3.C.1) Collect words on a sensory walk through the Culberson Asiatic Arboretum, and capture the experience in a haiku poem. Limited to 20 students per group. Fee is $60 per haiku program.
FOURTH GRADE

• NATIVE TALES: *(meets standards 4.H.1.1)* Plants have stories to tell. The Blomquist Garden of Native Plants serves as our classroom as students discover native N.C. plants and their uses.

• TREE DETECTIVES: *(meets standards EX.4.L.1 and EX.5.L.2, Math 4.01)* Working in a variety of ecosystems, the students identify clues and discover the special qualities and adaptations of different trees.

• HA IKU TRAIL INTO THE GARDENS: *(meets standards 3.C.1)* Collect words on a sensory walk through the Culberson Asiatic Arboretum, and capture the experience in a haiku poem. Limited to 20 students per group. Fee is $60 per haiku program.

FIFTH GRADE

• BEYOND THE POND: *(meets standards 5.L.2.1, Math 4.01)* Students will examine a pond ecosystem and evaluate its health by examining the smallest creatures of the pond. Limited to 20 students.

• GARDEN FOOD WEB: *(meets standards 5.L.2 Math 4.01)* Plants, animals, and decomposers in the Gardens are connected in a web of life. Students will create a habitat web and learn the importance of all the community’s connections.

• TREE DETECTIVES: *(meets standards EX.4.L.1 and EX.5.L.2, Math 4.01)* Working in a variety of ecosystems, the students identify clues and discover the special qualities and adaptations of different trees.

• HA IKU TRAIL INTO THE GARDENS: *(meets standards 3.C.1)* Collect words on a sensory walk through the Culberson Asiatic Arboretum, and capture the experience in a haiku poem. Limited to 20 students per group. Fee is $60 per haiku program.

MIDDLE SCHOOL

• THE FOREST AND THE FARM: Explore the Blomquist Garden of Native Plants to learn how ancient civilizations found their food, and the Charlotte Brody Discovery Garden to learn about the history of agriculture

• HA IKU TRAIL INTO THE GARDENS: *(meets standards 3.C.1)* Collect words on a sensory walk through the Culberson Asiatic Arboretum, and capture the experience in a haiku poem. Limited to 20 students per group. Fee is $60 per haiku program.

HIGH SCHOOL

• GENERAL TOUR: Contact gardenseducation@duke.edu

*Please visit the “learn” page at gardens.duke.edu or call 919-668-1707.*
ADULT EDUCATION PROGRAMS

GARDENING & HORTICULTURE

Each certificate program will be identified by the following icons:
- Home Horticulture Certificate Program
- Nature Photography Certificate Program

WALK ON THE WILD SIDE

Stefan Bloodworth, curator, or Annabel Renwick, horticulturist, Blomquist Garden of Native Plants, Duke Gardens

Explore wild North Carolina in these seasonal walks through the Blomquist Garden of Native Plants on the first Thursday of every month.

1ST THURSDAYS, AUG. 6, SEPT. 3, OCT. 1, NOV. 5, DEC. 3, JAN. 7, FEB. 4, 11 AM-NOON
LOCATION: MEET AT THE BLOMQUIST GARDEN ENTRANCE
PARTICIPANT LIMIT: 15
FEE PER DATE: $8; GARDENS MEMBERS $6
Pre-registration required. Parking fees apply.
PLANTS OF DISTINCTION: FALL & WINTER

Learn about spectacular plants that offer both beauty and functionality. Sign up separately for each session to learn a new group of beautiful and useful plants, or take all four sections.

GORGEOUS GRASSES • Tuesday, September 8, 2:30-4 PM
Michael Owens, curator of the Historic Gardens, Duke Gardens

FALL PLANTING IN THE VEGETABLE GARDEN • Tuesday, October 6, 2:30-4 PM
Jason Holmes, curator, and Lindsey Fleetwood, horticulturist, Doris Duke Center Gardens, Duke Gardens

BERRIES AND SEEDS FOR THE BIRDS • Tuesday, October 20, 2:30-4 PM
Stefan Bloodworth, curator of the Blomquist Garden of Native Plants, Duke Gardens

HELLEBORES IN THE WINTER GARDEN • Tuesday, March 1, 2:30-4 PM
Jason Holmes, curator of the Doris Duke Center Gardens, Duke Gardens

LOCATION: DORIS DUKE CENTER
FEE PER SECTION: $7; GARDENS MEMBERS $5
FEE TO REGISTER FOR ALL FOUR: $24; GARDENS MEMBERS $16
PARTICIPANT LIMIT: 15
Qualifies for Home Horticulture Certificate elective credit (1.5 hours each)

MASON FARM BIOLOGICAL RESERVE
UNC-CHAPEL HILL

Ken Moore, former assistant director, North Carolina Botanical Garden

New! Mason Farm serves a variety of purposes: it protects natural areas and supports research and education, all while providing a place to appreciate the diversity of our native landscape. The 900-acre preserve also connects to the 41,000-acre New Hope Game Lands to provide an even richer landscape corridor for wildlife. Join Ken to tour Mason Farms at the height of the fall wildflower bloom and learn more about this remarkable land resource. Directions will be sent to meet on site. Please dress appropriately and come prepared to hike on mostly level ground. A participation agreement will be required of each participant.

SATURDAY, SEPT. 12, 9:30-11:30 AM
LOCATION: MEET ON SITE; DIRECTIONS WILL BE SENT
FEE: $15; GARDENS MEMBERS $12
Carpooling can be coordinated.
THE WOW FACTOR: Effective Planting Combinations for Your Garden

Bobby Mottern, landscape architect and Duke Gardens’ horticulture director

The best gardens feel somehow effortless and exciting. They have a WOW impact that you want in your own garden. Bobby will introduce you to three different types of plants and discuss strategies for combining plants for maximum impact in your garden.

All sessions held from 10:30 AM-noon

Fall containers: Tuesday, Sept. 15
Ornamental Grasses: Tuesday, Sept. 22
Bulbs in the Landscape: Tuesday, Sept. 29
Location: Meet at the Doris Duke Center • Participant limit: 15
Fee per section: $15; Gardens members $12 • Fee for all: $39; Gardens members: $33
Qualifies for Home Horticulture Certificate elective credit (1.5 hours each)

AUTUMN IN THE ORGANIC VEGETABLE GARDEN

Sarah Parsons, MEM, Duke University and Ph.D. candidate in Entomology at NCSU

Gardeners work within the season, planting, tending, harvesting and enjoying the fruits of their labor. At the same time they are also forecasting the future, improving the soil, planning for next season and evaluating the past season. Autumn brings rich rewards in the vegetable garden with salad crops and root vegetables, along with cabbage, broccoli and kale. Sarah will take you through the basics of autumn crops, strategies to extend the season, and how to prepare for next year’s garden with compost, cover crops and other techniques.

4 Wednesdays, Sept. 16-Oct. 7, 6:30-8:30 PM
Location: Doris Duke Center
Fee: $99; Gardens members $79
Qualifies for Home Horticulture Certificate elective credit (8 hours)
COOKING FROM THE GARDEN

Katie Coleman, chef, Durham Spirits Company

The season is abundant with bounty from the garden! Learn how to use that produce in this class series. Katie brings many years’ experience as a chef and great skill at teaching people how to cook. Join us for one class, or the entire series. Each class includes in-class tastings.

FRESH AUTUMN SALADS • Saturday, September 19

Learn fresh, new ideas for flavorful salads. In this class Katie will introduce you to five salad recipes. We will make the salads as a group and then enjoy an early salad lunch!

AN APPLE PIE WITH HOMEMADE FLAKY PIECRUST • Saturday, October 3

Katie is here to rescue us from stiff and dry piecrusts. Learn how to master piecrust in this class as you make an apple pie. Each participant will make an apple pie to bake at home, and we will celebrate our skill by enjoying a taste of pie that Katie brings already baked.

WARM WINTER SOUPS • Saturday, January 23

A cold winter day is always improved by a warm bowl of soup. Katie will introduce you to four winter soups (some vegetarian). You will receive the recipes for all four soups and sample each of the soups in class.
RAISING BUTTERFLIES: Monarch and Eastern Swallowtails

Lori Carlson, Duke Gardens docent

Explore the curious lifestyle of butterflies. You will learn how to house and care for them through multiple life stages until you release them as adults. Lori will discuss the four to five life stages that precede the adult butterfly emerging in all its colorful wonder. Each participant will receive a butterfly box, host plants, one species of caterpillar or chrysalis (depending upon season) and Lori’s booklet of reference materials to take home.

FOR PARTICIPANTS AGES 16 THROUGH ADULT
TUESDAY: SEPT. 22, 6:30-8:30 PM
LOCATION: GREENHOUSE CLASSROOM
PARTICIPANT LIMIT: 15 * FEE: $35 PER PARTICIPANT. INCLUDES ALL KIT MATERIALS TO TAKE HOME.

SEEDS OF THE FUTURE

Sara Smith, avid home gardener and Education Program registrar, Duke Gardens

Something as simple as saving seeds from heirloom plants helps to protect our future. Each seed is a reservoir of genetic diversity, giving our food and ornamental plants broad adaptations to a variety of conditions. Sara will work with you to discuss the process of seed harvesting, the methods to save seeds and then how to grow them for the next season. Each participant will harvest some heirloom seeds to take home.

THURSDAY, SEPT. 24, 6:30-8:30 PM
PARTICIPANT LIMIT: 25
FEE: $15; GARDENS MEMBERS $12
Qualifies for Home Horticulture Certificate elective credit (2 hours)

HORTON GROVE: Triangle Land Conservancy

Ken Moore, former assistant director, North Carolina Botanical Garden

At just over 708 acres, Horton Grove is the Triangle Land Conservancy’s largest preserve. Once part of Stagville Plantation, Horton Grove now contains 5 miles of streams, 8 miles of trails and an amazing range of habitats and ecologies. We arrive at Horton Grove in the evening to enjoy the sunset and twilight in an evocative landscape. Ken will show you a rare, fairly undisturbed grove of Piedmont Forest and restored prairies at the height of their fall color (season dependent). We will supply binoculars. Please come dressed for moderate hiking. Participants will meet at the site. Directions supplied and carpooling can be coordinated. A participation agreement will be required of each participant.

THURSDAY, OCT. 1, 5:30-7:30 PM
LOCATION: MEET AT HORTON GROVE. DIRECTIONS WILL BE SENT.
FEE: $15; GARDENS MEMBERS $12
PARTICIPANT LIMIT: 15
Qualifies for Home Horticulture Certificate elective credit (2 hours)
Qualifies for Nature Photography Certificate optional course. Carpooling can be coordinated.
Explore plants from a “Zoom In” perspective. In this outdoor lab you will look at the architecture of a plant, learning what makes each unique. Learn to distinguish a variety of plants and how their particular forms help with their functions.

**ZOOM IN: BEECH AND OAK • Wednesday, October 7, 5:30-7 PM**
What do beech and oak have in common? They are both members of the Fagaceae family. Join us for a brief field lab in which you will examine the structures, identifying features and unique beauty of this family.

**ZOOM IN: GRASS FAMILY • Wednesday, October 28, 5:30-7 PM**
Untangle the complex family of grasses in this brief field lab. Examine the structures, identifying features, and sturdy delicacy of the grass family while you practice using a plant key.

**ZOOM IN: WINTER BOTANIZING • Saturday, January 30, 1-3 PM**
The winter season is a beautiful time to identify plants. They are pared down to their essence and you can enjoy the bark and twig colors, the buds holding next year’s growth, and the seeds remaining from the previous growing season. Join us to examine the structures, identifying features and wonder of the winter landscape.

**LOCATION: DORIS DUKE CENTER**
**PARTICIPANT LIMIT: 12**
**FEE PER SESSION: $15; GARDENS MEMBERS $12**
**REGISTER FOR THE COMPLETE SERIES: $39; GARDENS MEMBERS $33**
Qualifies for Home Horticulture Certificate elective credit (1.5 hours each)
Qualifies for Nature Photography Certificate optional course
WHO LIVES HERE?

Look at the Gardens from an animal’s point of view. Where can you find shelter, food and water? The Gardens provide these for birds, pollinators and a host of other creatures. Learn more about the web of life at Duke Gardens.

TUESDAY, OCT. 13, 2:30-3:30 PM
PARTICIPANT LIMIT: 15
FEE: $8; GARDENS MEMBERS $6
Pre-registration required. Parking fees apply.
This topic is also available for private tours. Please call 919-668-1707 for details.

LANDSCAPE PLANTS FOR NORTH CAROLINA GARDENS: Fall and Winter

Jan Little, director of education and public programs, Duke Gardens

Expand your palette of plants with information from this class. Each season this class covers another group of approximately 60 plants suitable for North Carolina gardens. You will learn identification skills and design use, and understand the culture of each plant. The fall program focuses on plants that shine in autumn and late-blooming perennial flowers. Winter introduces plant silhouettes and evergreens. Each student receives a digital portfolio of plant photos. Class time is primarily outdoors.

FALL SESSION: 4 TUESDAYS, OCT. 13-NOV. 3, 4-6 PM
WINTER SESSION: 3 TUESDAYS, FEB. 23-MARCH 8, 3-5:30 PM
PARTICIPANT LIMIT: 15
FEE PER SESSION: $110; GARDENS MEMBERS $90
Qualifies for Home Horticulture Certificate required course
I NEED A PLAN: Garden Fundamentals

Each different section of this program will help you plan your garden. Register for one or all sections.

ENVISIONING YOUR GARDEN • 2 Tuesdays, October 13 & 20
Suzanne Edney, landscape designer

Landscape designs allow us to explore different alternatives and confirm our preferences. But many people have difficulty envisioning how the final landscape will look. Suzanne will work with you to combine photographs of either your front or back yard and sketching to try out different ideas and finalize your goals. Class discussions will relate to line, form and emphasis. Students will develop a conceptual design but not a completed planting plan.

CREATE A SUSTAINABLE GARDEN • 2 Tuesdays, October 27 & November 3
Jan Little, director of education and public programs, Duke Gardens

View your garden through nature’s lens and learn to garden using a healthier and greener approach! We will look at soil, water, drainage, land history and existing plants. Each student will have the opportunity to develop a sustainability strategy for your home garden.

CREATE A BIRD-FRIENDLY GARDEN • 2 Tuesdays, February 2 & 9
Lauri Lawson, Niche Gardens

Birds can bring color, life and song to your garden. Laurie will review plants that are favored by both local and migratory songbirds, as well as their other shelter needs. Then you will have the chance to create a plant list suitable for your garden conditions.

TUESDAYS, 6:30-9 PM
LOCATION: DORIS DUKE CENTER
PARTICIPANT LIMIT: 15
FEE PER SECTION: $45; GARDENS MEMBERS $35
FEE FOR COMPLETE SERIES: $129; GARDENS MEMBERS $99
Qualifies for Home Horticulture Certificate elective credit (5 hours each)
COLLECTIONS COME TO LIGHT: The Nasher Museum of Art and Duke Gardens

Join us for a special afternoon to combine your love for art, photography, horticulture and landscapes. Curators will take us through several of the new galleries at the Nasher Museum, followed by activities at Duke Gardens. *The New Galleries: A Collection Come to Light* is a comprehensive and dynamic reinstallation of the Nasher Museum’s collection. We will focus on an installation of Ansel Adams photography followed by guided tours of other new galleries. Returning to Duke Gardens you have a choice between a photography walk, emphasizing the techniques of Ansel Adams, or a garden design walk that translates design strategies from paintings into the landscape with ideas you can use in your own gardens.

**THURSDAY, OCT. 29, 3-5 PM**
**LOCATION:** PLEASE MEET AT THE NASHER MUSEUM
**PARTICIPANT LIMIT:** 20
**FEE:** $15; GARDENS/NASHER MEMBERS $12

GARDENING 101

*Hilary Nichols, garden manager, SEEDS*

Learn how to open and prepare a bed for planting, basic soil improvement strategies, how to select plants, and planting skills. Class will work in the Charlotte Brody Discovery Garden to see theory in practice.

**2 SATURDAYS, NOV. 7 & 14, 9 AM-NOON**
**PARTICIPANT LIMIT:** 15
**FEE:** $90; GARDENS MEMBERS $70
**Qualifies for Home Horticulture Certificate required course**

COMPOST YOUR WAY TO HEALTHY SOIL: Tour N.C. State University Composting Facility

*Rhonda Sherman, extension specialist, Biological & Agricultural Engineering*

Did you realize over 50% of a typical household’s waste can be composted? This includes your lawn and garden debris, kitchen vegetable scraps and recyclable paper. We will see and evaluate twelve different composting systems plus almost as many vermicomposting systems. Greet the spring with a compost system for your garden and gain the benefits of improved soil, higher crop yields and moisture retention, among other benefits. Directions will be supplied to meet at the facility.

**WEDNESDAY, NOV. 11, 1-3 PM**
**LOCATION:** MEET AT THE LAKE WHEELER FACILITY
**FEE:** $15; GARDENS MEMBERS $12
**Carpooling can be coordinated**
HOLIDAY GREENERY
Beth Hall, plant records manager and Michelle Rawlins, horticulturist, Duke Gardens

Make your own fragrant holiday display and bring nature indoors. Beth and Michelle will each create several evergreen swags or mantelpieces to demonstrate tips and techniques for turning greenery, colorful stems, berries and pods into scented holiday displays for your home. Each participant will then produce his or her own holiday swag to hang on a door or display on a mantel or table. All plant materials and ribbon will be supplied. Please bring a pair of hand pruners and any embellishments you would like to include.

SECTION A: SATURDAY, DEC. 5, 10 AM-NOON
SECTION B: SATURDAY, DEC. 5, 2-4 PM
PARTICIPANT LIMIT: 12 PER SECTION • FEE PER SECTION: $65; GARDENS MEMBERS $55

DESIGN STRATEGIES FOR AN ENGLISH GARDEN
Annabel Renwick, horticulturist, Duke Gardens

This workshop will begin with an outline of strategies and design elements that may be adapted from authentic English gardens into North Carolina gardens. Then you will have the opportunity to sketch out the basics of a plan for your landscape. The devices of definition, open ground and mixed borders will be refined with discussions of plant palette, the influence of light on color, and right plant/right place approaches. Participants should plan to bring a drawing of the site they want to develop. No site should be larger than 75 x 75 feet.

4 WEDNESDAYS, JAN. 20-FEB. 10, 6:30-9 PM
LOCATION: DORIS DUKE CENTER
PARTICIPANT LIMIT: 15 • FEE: $115; GARDENS MEMBERS $95
Qualifies for Home Horticulture Certificate elective credit (10 hours)

BEE SCHOOLED
Durham County Beekeepers Club

Learn everything necessary to be a successful beekeeper. This 10-week course will cover the fundamentals, including planning, equipment needs, annual calendars and hive products. You will also learn specific information about bees, from genetics and nutrition to disease prevention and nectar and pollen sources. The instructors are experienced, certified beekeepers and State of North Carolina apiary inspectors. Participants will complete their testing to become certified beekeepers.

10 MONDAYS, JAN. 18-MARCH 21, 6:30-8:30 PM
SATURDAY FIELD SESSION, MARCH 28, TIME TBA
FEE: $50. PROCEEDS SUPPORT THE DURHAM COUNTY BEEKEEPERS CLUB AND DUKE GARDENS.
KEEPING THAT TREE ALIVE AND THRIVING!
Alex Johnson, urban forestry manager, city of Durham NC

Just how does a tree work? How can I purchase a healthy tree and transplant it successfully? As a self-proclaimed “tree geek,” Alex brings a wealth of knowledge, experience and enthusiasm to this program. Learn the fascinating strategies that trees employ to grow and survive, how to select a tree and nurture it through establishment.

THURSDAY, FEB. 4, 6:30-8 PM • LOCATION: DORIS DUKE CENTER • FEE: $10; GARDENS MEMBERS $8

MUSHROOM LOGS
Andy Currin, avid vegetable gardener and campus horticulturist, Duke University

Enjoy fresh shitake mushrooms grown in your own garden! Each participant will be supplied with a 12” section of log, pre-drilled and ready to “plant” with mushrooms. Andy will take you through the process of seeding the log, sealing it with wax, and then maintaining it for the six months it will take to grow your first crop of mushrooms. Each log should produce mushrooms for several years.

SECTION A: SATURDAY, FEB. 6, 10 AM-NOON
SECTION B: SATURDAY, FEB. 6, 1-3 PM
LOCATION: DORIS DUKE CENTER • PARTICIPANT LIMIT: 15 • FEE: $35; GARDENS MEMBERS $30

BASIC BOTANY AND PLANT GROWTH
Alex Motten, associate professor, Duke University Department of Biology

How does a plant grow? How does it manage water and nutrients? What factors influence the production of flowers and fruits? This course will explore these questions and more using a combination of lecture and hands-on approaches. Previous participants have commented that Alec’s enthusiasm and skillful instruction make the topic come alive.

4 TUESDAYS, FEB. 16-MARCH 8, 6-9 PM
PARTICIPANT LIMIT: 15 • FEE: $130; GARDENS MEMBERS $110
Home Horticulture Certificate required course

WAYFARING INSECTS:
Invasive Pests in Our Backyards
Katie Rose Levin, project coordinator, Grounds Department, Duke University

More and more we hear about insects that are munching their way through our trees. The tree leaves, bark and trunk – all attractive to the Emerald Ash Borer or spring and fall cankerworms. Katie will walk you through the life stages of these pests, describe when our trees are most vulnerable and outline the means to control pests through a variety of methods.

THURSDAY, FEB. 25, 6:30-8 PM • LOCATION: DORIS DUKE CENTER • FEE: $10; GARDENS MEMBERS $8
An informal group independent of Duke Gardens, the forum meets once a month to enrich its members’ gardening knowledge and skill. Sponsored in partnership with the N.C. Cooperative Extension: Durham County Center

**SHADE GARDENING • September 15**
Jason Holmes, curator of the Doris Duke Center Gardens, Duke Gardens
Learn about shrubs and perennials that will thrive and bring color to your shady garden. Jason will introduce you to a variety of shade-loving plants.

**WILDLIFE MANAGEMENT • October 20**
Chris DePerno, associate professor, N.C. State University, College of Natural Resources
Bambi is cute – until he mows down your garden! Chris will present a number of ways to co-exist with our wilder neighbors.

**SOIL • November 17**
Bryce Lane
Have you ever stopped to think of all that soil provides? Food, water management, a habitat for all kinds of beneficial (and not) critters and support for our building foundations. Bryce will discuss a variety of ways to work with your soil for improved gardening.

**STUNNING SCHEFFLERA AND ELEGANT EDGEWORTHIA: THE SOUTH DOESN’T DO DORMANT • December 15**
Mark Weathington, director, JC Raulston Arboretum
Foliage and flower buds ornament our winter, along with brilliant red berries and the elegant tracery of tree limbs. Improve your garden’s winter appearance with these tips from Mark.

**NATIVE PLANTS FOR YOUR GARDEN • January 19**
Charlotte Glen, extension agent, Agriculture – Horticulture, Chatham County
Plants native to our region bring a variety of benefits. Beyond hardiness and seasonal color, native plants work with insects, birds, amphibians and mammals to make a healthy environment. Add some native species to your garden with information from this presentation.

**EDIBLE PLANTS AND PERMACULTURE TECHNIQUES • February 16**
Will Hooker, N.C. State University, Horticulture Department
Learn more about permaculture and expand your edible landscape. You will benefit from both Will’s professional expertise and his personal experience in his own amazing garden in this informative talk.

**TUESDAYS, 6:30-8 PM**
LOCATION: DORIS DUKE CENTER
LECTURE FEE: FORUM MEMBERS FREE WITH ANNUAL MEMBERSHIP.
$10 PER MEETING FOR NON-MEMBERS PAYABLE TO DURHAM GARDEN FORUM.
For membership information, please email durhamgardenforum@gmail.com.
No pre-registration necessary. Parking is free
EXTENSION GARDENER SERIES

with Durham County Master Gardeners

Sponsored in partnership with the N.C. Cooperative Extension Service: Durham County Center

LOCATION: DORIS DUKE CENTER
Free drop-in events but registration is required at 919-668-1707. No parking fees after 5 pm.

SOIL PREPARATION
Thursday, Sept. 3, 6:30-8 PM
Charles Murphy, Durham County Extension master gardener

Durham’s native soil is somewhat difficult to work with. Charles will discuss what can be done to make the soil easier for the gardener and more productive for the plants. Remember, time and patience are factors!

COMPOSTING
Thursday, Nov. 12, 6:30-8 PM
Georganne Sebastian and Darcey Martin, Durham County Extension master gardeners

Discover the basics of successful composting and vermicomposting. Learn how to transform food scraps, leaves and other organic materials into a nutrient-rich soil conditioner that will benefit your lawn and gardens.

GROW NATIVE WILDFLOWERS IN YOUR GARDEN
Thursday, Feb. 18, 6:30-8 PM
Kathleen Guerra and Nan Len, Durham County Extension master gardeners

Why have a generic landscape when you can have a North Carolina one? Consider adding native wildflowers. On a practical level, many of them are adapted to our local soil and climate. Aesthetically, they are lovely and are a part of this region. Beneficially, they provide food and shelter for our native insects and birds. Kathleen and Nan will share a palette of native wildflowers that will provide all these advantages in your garden.

PLANT INFORMATION BOOTH

Having trouble with a plant, pest, or pathogen? The Master Gardener Volunteers will be in the Gardens Wednesday and Saturday mornings in September and October to answer all your questions about plants, gardening, insect pests or disease. Please see a complete schedule and more information at durham.ces.ncsu.edu.

WEDNESDAYS, IN THE TERRACE GARDENS: SEPT. 9-23 AND OCT. 14-21, 10 AM-1 PM
SATURDAYS, IN THE CHARLOTTE BRODY DISCOVERY GARDEN: AUG. 8-22, SEPT. 5-19 AND OCT. 3-24, 10 AM-1 PM
LOOK FOR THIS ☇ TO IDENTIFY HORTICULTURE CERTIFICATE CLASSES

Each garden is a unique combination of site, soil, climate and the gardener who creates it. The Home Horticulture Certificate gives you the knowledge and skill to select plants successfully, and to develop, grow and maintain your home landscape.

The curriculum assists you in mastering the gardening techniques best suited for North Carolina gardens through lectures, demonstrations, field experiences and projects. The classes focused on native plants and systems will assist you in sustainable gardening. Enjoy learning from local experts and sharing your experiences with other gardeners.

You do not have to be enrolled in a certificate program to take a class. Everyone is welcome in certificate courses.

Participants already pursuing the certificate should continue to complete the requirements in place when they began. For people just beginning the certificate program, please see the requirements listed below.

FULL LISTING OF REQUIRED COURSES:
For current programs scheduled, please see the class listings. Some required courses are offered seasonally.

• Landscape Plants for North Carolina Gardens: four seasonal courses
  – spring, summer, fall and winter
• Basic Botany and Plant Growth
• Gardening 101
• Caring for Your Landscape

ELECTIVE COURSES:
These courses change seasonally, and 40 class hours of electives are the minimum required to complete your certificate. Electives are created in response to student requests, allowing students to pursue their specific interests.

ELECTIVE TOPICS MAY INCLUDE:

• Landscape design
• Sustainable gardening
• Container gardening
• Hardscape installation
• Fruits and vegetables
• Landscapes for life
• Zoom In series

For more information or to enroll in a class or certificate program, please call the registrar’s office at 919-668-1707 or email gardenseducation@duke.edu.
Nature photographers possess a unique blend of technical knowledge and artistic vision. Their skills illustrate nature and build appreciation and understanding of the natural world for us all. To share your love of nature—with an ability to capture it in an image—is exhilarating. This certificate program helps refine and expand your knowledge of equipment, processes, composition and methods while increasing your skill and awareness of the beauty of our natural world.

Photographers of all experience levels, from beginner to advanced, using any type of photo equipment (film or digital), are encouraged to enroll in this program.

You do not have to be enrolled in a certificate program to take a class. Everyone is welcome in certificate courses.

Participants already pursuing the certificate should continue to complete the requirements in place when they began. For people just beginning the certificate program, please see the requirements listed below.

**FULL LISTING OF REQUIRED COURSES:**
*For current programs scheduled, please see the class listings.*

- Introduction to Nature Photography / Introduction to Digital Photography
- Learning to See in Nature
- Improving Photo Quality
- Photographing Plants
- Three of the required courses from the Home Horticulture Certificate program

**ELECTIVE COURSES:**
*These courses change seasonally, and 30 class hours of electives are the minimum required to complete your certificate. Electives are created in response to student requests, allowing students to pursue their specific interests.*

**ELECTIVE TOPICS MAY INCLUDE:**

- Close-up photography
- Photoshop for nature photographers
- Night photography
- Using light effectively
- Composition skills

For more information or to enroll in a class or certificate program, please call the registrar’s office at 919-668-1707 or email gardenseducation@duke.edu.
COMPOSITION AND LIGHT
Reagan Lunn, L. Reagan Lunn Photography

Light, composition, moment, time, palette, and wonder – National Geographic refers to these as the most basic elements of nature photography. This short session will help the casual photographer be more aware of light direction, quality and quantity in an image and also the basics of photographic composition. The field session will allow you to work on moment, palette, time and wonder! Examples of Reagan’s work may be seen at ReaganLunn.com

2 SATURDAYS, OCT. 10 & 17, 9 AM-3 PM
LOCATION: DORIS DUKE CENTER
PARTICIPANT LIMIT: 15 • FEE: $75; GARDENS MEMBERS $60
Nature Photography Certificate elective course (6 hours)

CREATIVE NATURE PHOTOGRAPHY
Melissa Southern, nature photographer

New! Move your images several steps closer to the image you had in your mind! Melissa will introduce a variety of field and post-production techniques to boost the creativity of your photographs. In this class you will learn how to use more advance techniques including focus stacking, HDR, flash and adding movement. Examples of Melissa’s work may be seen at melissasouthern.com.

2 WEDNESDAYS, NOV. 4 & 11, 6:30-9 PM
2 SATURDAYS, NOV. 7 & 14, 9 AM-NOON
LOCATION: DORIS DUKE CENTER
PARTICIPANT LIMIT: 15 • FEE: $110; GARDENS MEMBERS $90
Qualifies for Nature Photography Certificate elective credit (11 hours)

MEET YOUR NEW CAMERA:
An Introduction to Digital Photography
Melissa Southern, nature photographer

Learn about all your camera’s bells and whistles. In this class we will review all the functions and menus of your camera. Basic photo composition skills will also be discussed. Please bring your camera and manual to each session. All digital cameras from point-and-shoot to SLRs are welcome. Examples of Melissa’s work may be seen at melissasouthern.com.

2 THURSDAYS, JAN. 21 & 28, 6:30-9 PM
SATURDAY FIELD SESSION JAN. 23, 8 AM-NOON
LOCATION: DORIS DUKE CENTER
PARTICIPANT LIMIT: 15 • FEE: $110; GARDENS MEMBERS $90
Qualifies for Nature Photography Certificate required course
PHOTOGRAPHING PLANTS

Yesenia Bocanegra, photographer and owner, Yesenia Bocanegra Photography

Winter exposes the elegant tracery of plants. In this season plants are both solid and transparent, a single object and many very different parts, all interacting with the sun and wind. Learn to capture the beauty of plants in this class featuring composition and technique. Examples of Yesenia’s work may be seen at www.yeseniabocanegra.com

2 THURSDAYS, FEB. 18 & MARCH 3, 6:30-8:30 PM
2 SATURDAY FIELD SESSIONS, FEB. 20 & 27, 8-11 AM
LOCATION: DORIS DUKE CENTER
PARTICIPANT LIMIT: 15 • FEE: $100; GARDENS MEMBERS $80
Qualifies for Nature Photography Certificate required course
Did last weekend’s weeding session leave you with an achy back, creaky knees and tense shoulders? Join us for an hour of deep tissue massage. Learn techniques easily practiced at home using your own body weight against a pair of portable therapy balls.

No experience or athleticism necessary. Please bring a yoga mat and block; we will have a few extras for students to borrow. Therapy balls will be provided for use in class. All participants must complete a waiver form that will apply to all sessions in which they enroll.

Orla Swift is a certified yoga, pilates, barre and therapy ball massage instructor. In addition, she is the director of marketing and communications for Duke Gardens.

Participant Frances Kerr says: “sometimes afterward, I feel like my body is years younger.”

Fall’14 massage class.

All sessions held from 6-7 pm

**UPPER BODY FOCUS:** WEDNESDAY, SEPT. 16

**LOWER BODY FOCUS:** WEDNESDAY, SEPT. 23

**FULL BODY FOCUS:** WEDNESDAY, SEPT. 30

**LOCATION:** DORIS DUKE CENTER

**FEE PER SESSION** $15; **GARDENS MEMBERS** $12

**SIGN UP FOR 3 SESSIONS AT A RATE OF** $39; **GARDENS MEMBERS** $30

**PARTICIPANT LIMIT:** 10

Please register in advance
TRADITIONAL JAPANESE TEA GATHERINGS

Chizuko Sueyoshi with members of the Japanese Tea Practitioners of Durham

Join us for a moment of respite in the Duke Gardens teahouse, where you will experience the warmth of a traditional Japanese tea gathering. Tea guests meet at the Doris Duke Center to be escorted to the teahouse for these intimate gatherings. Daytime teas are open for children age 6 and older with an accompanying adult, at the family rate. Participant limit: 10

- **Friday, Sept. 25:** Moon-viewing Tea, 6:45-8:15 PM, 1 seating only
- **Saturday, Oct. 24:** Dancing Leaves Tea, 10:45 AM and 1 PM seatings
- **Saturday, Feb. 27:** First Voice of Spring Tea, 10:45 AM and 1 PM seatings

Location: Meet at the Doris Duke Center

FEE: $40; Gardens Members $30; Family Rate $40 per Adult/Child

Additional Children $5 each

Pre-registration required (parking pass included)
MEMBERSHIP INFORMATION

Support Sarah P. Duke Gardens through membership in Friends of Duke Gardens

Sarah P. Duke Gardens is enjoyed free of charge by more than 300,000 people annually. Over half of our yearly operating budget comes from people like you, who value all that this world-class botanic garden has to offer. Please consider the opportunity to support Duke Gardens by joining today.

Your membership gifts enable Duke Gardens to provide essential features, including:

• Free admission
• Education programming
• World-class horticultural design
• Free events for all to enjoy

MEMBERSHIP LEVELS

Duke students and Duke Gardens volunteers ........................................................................... $25
Individual .................................................................................................................................. $50
Dual (spouses/partners) ........................................................................................................... $75
Family (includes children under age 18) ................................................................................ $100

ALL MEMBERSHIP LEVELS INCLUDE

• Education program discounts at Duke Gardens & other participating gardens
• 10% discount on Terrace Shop purchases
• Invitations to special Friends events
• Reciprocal admission benefits to nearly 300 gardens in North America
• Flora magazine
ADDITIONAL GIFT RECOGNITION SOCIETIES

Terraces Society ........................................................................................................ $250

INCLUDES MEMBERSHIP BENEFITS PLUS:
• Duke Gardens calendar
• 20% discount on Gothic Bookshop purchases (valid membership card required)
• 2 complimentary gift memberships (please provide names & addresses of recipients)
• Annual Report

Iris Society ................................................................................................................ $500

INCLUDES TERRACES SOCIETY BENEFITS ABOVE PLUS:
• Duke Gardens notecards
• 2 complimentary registrations for a Gardens education program

Pergola Society ......................................................................................................... $1,000

INCLUDES IRIS SOCIETY BENEFITS ABOVE PLUS:
• Complimentary Gardens parking

Please contact us to learn about additional membership societies and giving opportunities. You may leave a legacy at Duke Gardens in a variety of ways, including naming options throughout the Gardens.

All Friends memberships are part of the Duke Annual Fund and are used entirely for the benefit and purposes of Duke Gardens. Duke alumni also receive reunion class gift credit.

To make a gift, please call 919-684-5579 or go to gardens.duke.edu/support.
Gardens
PARTNERS

Sarah P. Duke Gardens is pleased to welcome the following horticulture partners. These groups are independent of the Gardens but welcome our members and visitors to join them in learning more about horticulture. No registration required.

N.C. COOPERATIVE EXTENSION SERVICE: DURHAM COUNTY CENTER
Please see lecture schedule on page 33.
The Durham County Extension Master Gardener Volunteers will be in the Gardens several days of the week to answer all your questions about plants, gardening, insect pests or disease. Please go to durham.ces.ncsu.edu for a complete schedule.

DURHAM PHOTOGRAPHY CLUB AT DUKE GARDENS
Meets on the 3rd Monday of each month, 6:30-8 pm. Please find more information on the club’s Facebook page by entering its name into Facebook’s search box.

TRIANGLE ORCHID SOCIETY
The Triangle Orchid Society conducts its monthly meeting at the Doris Duke Center on the 2nd Monday of each month. Please go to triangleorchidsociety.org for more information.

DURHAM COUNTY BEEKEEPERS
Meets the 3rd Monday of each month, 6:30-9 pm, at the Doris Duke Center.

SARAH P. DUKE IKEBANA INTERNATIONAL CHAPTER #264
For information, contact Carol Krauser, chapter president, at 919-535-8797.

DURHAM GARDEN FORUM
Please see meeting schedule and topics on page 32.

YOUtopia
Sarah P. Duke Gardens is pleased to announce our participation in YOUtopia, a program that assists America’s public gardens in reducing their climate impact. Created by the American Public Gardens Association and ecoAmerica, this program communicates the goals and successes of partnering public gardens. Watch for additional information at Duke Gardens about the increased sustainability of our gardens.

LET’S MOVE!
“Let’s Move!” is a comprehensive initiative launched by First Lady Michelle Obama. It is dedicated to solving the problem of obesity within a generation, so that children born today will grow up healthier and able to pursue their dreams. Working with parents, caregivers, schools, public officials and communities, Let’s Move! is about putting children on the path to a healthy future during their earliest months and years. Let’s Move! Museums & Gardens will focus on interactive exhibits, after-school and summer programming and food service that help young people to make healthy food choices and be physically active.
REGISTRATION FORM

Registrant Name

Address

City     State    Zip

Daytime Phone   Cell phone

Email

REGISTRATION POLICY: Please pre-register for all programs and complete any fee payment at that time. Registrations are accepted on a first come, first served basis, no registration is complete without payment, and program space will be allocated on a first paid/first reserved basis. To register please call 919-668-1707 or email gardenseducation@duke.edu

CANCELLATION POLICY: You may cancel your enrollment and receive a refund of your fee up to a week before the scheduled start date of a class. Any classes canceled by Duke Gardens will result in a complete refund. Please note that camps require further advance notice for cancellations.

WEATHER POLICY: Occasionally weather disrupts a schedule; last-minute changes will be noted on the voicemail message at 919-668-1707.

COURSE NAME    DATES  FEE

TOTAL $

FRIENDS OF DUKE GARDENS ENROLLMENT

To qualify for membership discounts and other benefits, please send a separate check payable to Duke Gardens.

Check one of the boxes below:

- Duke student / Duke Gardens volunteer $25
- Individual $50
- Dual (spouses/partners) $75
- Family (includes children under age 18) $100
- Terraces Society $250
- Iris Society $500
- Pergola Society $1,000
- Directors Society $2,500
- Mary Duke Biddle Society $5,000
- Mary D. B. T. Semans Society $10,000
- Corporate Friends $5,000
Sarah P. Duke Gardens creates and nurtures an environment in the heart of Duke University for learning, inspiration and enjoyment through excellence in horticulture.