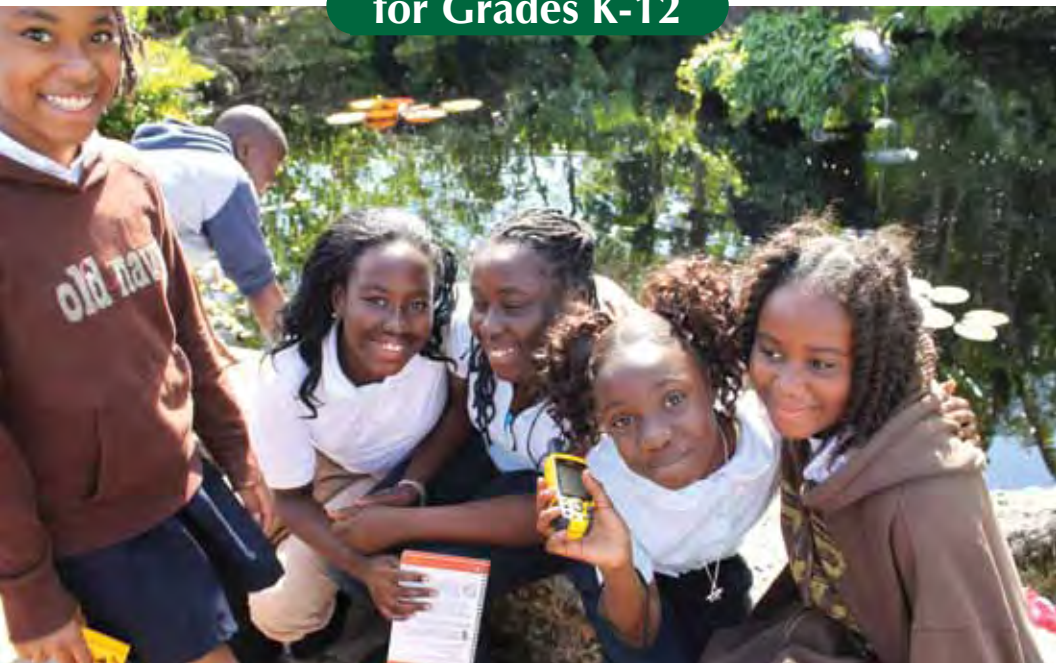


# Field Studies at Fairchild 2011-2012



for Grades K-12



FAIRCHILD TROPICAL BOTANIC GARDEN

**Unearth the inner scientist..**





**New!**

# PlantMobile

## Programs for Grades K-12

Let Fairchild Tropical Botanic Garden come to you for a lively, hands-on experience that supplements your botanical and ecological classroom teaching. All programs are grade-appropriate and aligned with Next Generation Sunshine State Standards. (Please visit our website at [www.fairchildgarden.org/education](http://www.fairchildgarden.org/education) for a list of the correlating standards.)

The PlantMobile program is available to come to your school on Thursdays between the hours of 9:30 am and 2:30 pm.

**For more information or to schedule a PlantMobile Program**, please call Marilyn Caputo at 305.667.1651 x 3322.

### **Fees:**

1-hour classroom program: \$125.00 (up to 30 students); Additional classes on same day: \$100.00

### **3 PROGRAMS ARE OFFERED:**

#### **Rainforest Relationships**

Could you survive in the rainforest? Students discover the connections between rainforest plants and products we use everyday and examine authentic artifacts from an Ecuadorian rainforest.

#### **Kitchen Botany: From Flowers to Food**

When you eat celery, broccoli or asparagus, what part of the plant are you eating? Using hand lenses and dissecting tools, students will examine fruits and vegetables to discover the intricacies within.

#### **From Seeds to Trees**

Why do some seeds fly and other seeds float? Students will learn about the basic parts of seeds, and what role the seed plays in the life cycle of a plant.





## Immerse your students in the exciting world of tropical plants

as they look, listen, smell and feel their way through Fairchild Tropical Botanic Garden. Fairchild education staff and trained volunteer guides lead student groups through a variety of

hands-on science activities and garden exploration. Students will also take a narrated tram tour of Fairchild's 83 acres, participate in a propagation lesson in the Learning Garden and take home their own botanical souvenir. All of our programs are aligned with Next Generation Sunshine State Standards (*please see page 10 for more information*).

### Grades K to 2 LIVING WITH PLANTS Mondays and Fridays

Where would we be without plants? We wouldn't have much to eat, drink or even wear! Students will discover plants from root to shoot as they journey through the garden, participate in a plant part scavenger hunt and color matching activity, and meet some trees with high cultural, commercial and historical value.



### **Grade 3**

## **LIFE IN A RAINFOREST**

### **Wednesdays**

Discover the amazing plants that gave us chewing gum, vanilla and chocolate in Florida's largest rainforest exhibit. Students use hand lenses to take a closer look at the plants, insects and decomposers found on the forest floor. Guides demonstrate authentic rainforest tools and toys as students compare their lifestyle with that of the Chachi people of the Ecuadorian rainforest.



### **Grade 4**

## **WHERE WE LIVE**

### **Tuesdays**

Get to know the plants that live in your backyard. South Florida is home to a variety of unique and endangered ecosystems. Students investigate mangrove and pine rockland ecosystems by identifying native plants, searching for native wildlife and digging in the soil. The day ends with students acting out a food web to demonstrate how energy flows through a mangrove ecosystem.

### **Grade 5**

## **TROPICAL EXPLORATIONS**

### **Thursdays**

What do butterflies, hummingbirds and bats have in common? They all love to drink nectar! Photosynthesis and plant reproduction come alive as students learn about tropical plants and discover some astounding relationships between animals and plants. Using hand lenses, students examine the reproductive parts of plants from spores and seeds to flowers and cones.



FAIRCHILD  
**Discovery**  
PROGRAM  
Grades 3-12



## Science & technology come alive

in the Discovery Program as students embark on an interdisciplinary learning adventure. Students are equipped with GPS units, compasses and maps as they work together to navigate their way to hands-on activity stations located throughout the garden.



## BIOMIMICRY: DESIGNED BY NATURE Tuesdays

How do geckos defy gravity? How did a seed inspire the invention of Velcro? What can a cactus teach us about water conservation? Students will explore a variety of interesting adaptations in the arid garden and rainforest exhibit to brainstorm how such changes can inspire innovative solutions to contemporary environmental issues.





## **SYMBIOSIS: BUTTERFLIES AND PLANTS**

### **Wednesdays**

Students hunt for caterpillars and butterflies, identify host plants, and investigate the interdependent relationship between butterflies and plants. Each activity station represents a stage in the insect life cycle using inquiry-based activities to demonstrate metamorphosis.

## **BIODIVERSITY: CULTIVATING HEALTHY ECOSYSTEMS**

**New!**

### **Fridays**

Students learn about species richness as they discover various ways in which living beings contribute to the health of ecosystems. Using the same methods that scientists use to measure biodiversity, students will take an up-close look at some of the living and non-living features of local ecosystems. Students will use critical-thinking skills to investigate species loss and brainstorm sustainable solutions.

## **SELF-GUIDED DISCOVERY (Grades 6-12)**

### **Monday, Thursday and Friday**

Fairchild Tropical Botanic Garden is also available for teachers to use independently as a living classroom to reinforce botanical, ecological and other scientific concepts.

Teachers may implement their own curriculum or request to use the following self-guided materials during their visit:

**Ethnobotany** – Learn about the multitude of ways that we depend on plants in our lives and explore how plants have shaped cultures across continents and centuries.

**Plant Kingdom** – Students explore plant groups and classification while they learn about the diversity of the plant kingdom and reinforce botanical concepts.

**Art in the Garden** – Explore our annual art exhibit and use the garden for photography, drawing, writing, or other lessons.

# CHOOSE WHICH PROGRAM IS RIGHT FOR YOU



## EXPLORER

**Grades K-5**  
Monday-Friday  
10am-1pm  
**\$6 per student**  
*60 student max*

## DISCOVERY

**Grades 3-12**  
Tuesday, Wednesday & Friday  
10am-1pm  
**\$6 per student**  
*60 student max*

## SELF-GUIDED DISCOVERY

**Grades 6-12**  
Monday, Thursday & Friday  
**\$5 per student**  
*30 student max*

**Guided Activities**



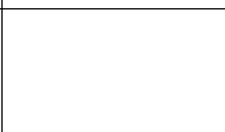
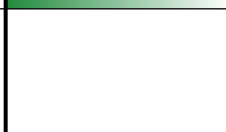
**Planting Lesson**



**Tram Ride**



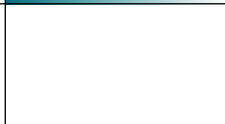
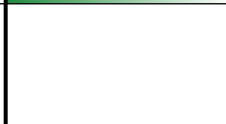
**GPS Technology**



**Pre-visit and Post-visit Activities Available\***



**Supplementary On-site Materials Available\*\***



\* **Pre-visit and post-visit activities** for guided programs will be sent by email prior to your visit and are available on our website at [www.fairchildgarden.org/education](http://www.fairchildgarden.org/education).

\*\* **Optional supplementary materials** are available for use during your self-guided visit. For more information, see pg. 7.

For information about PlantMobile registration and fees, see pg. 3.

All programs run from October 2011 – May 2012.

# PLAN YOUR VISIT

## To register your class for a field study program at Fairchild:

- Call **305.667.1651, ext 3322** to reserve a date.
- Complete and return the **Field Study Application Form** and a **\$50 deposit fee**. This must be returned within 10 days to keep your reservation unless otherwise specified.
- Watch for your **confirmation letter and field trip materials** to arrive by email after the application has been received.
- Please **notify us of any special needs** on the field study application.
- Title one schools participating in guided programs are eligible for a free bus; prior arrangements must be made during the registration process.

## Get ready for your visit to Fairchild:

- One (1) adult is required for every ten (10) students and is admitted free of charge. Any additional adults will be charged \$10. **School groups may not bring more than six (6) chaperones**. Additional adults will not be able to participate in the program.
- All students, teachers and chaperones **must bring their own lunch**. All lunches should be in coolers or boxes. No refrigeration, café, or vending services are available.
- **Review all pre- and post-visit materials** sent by email and also available on our website at [www.fairchildgarden.org/education](http://www.fairchildgarden.org/education).

## Plans change?

- Call us A.S.A.P. at **305.667.1651, ext 3322**.
- Deposit will not be refunded if cancellation is made less than 30 days in advance.

**Teachers with a valid school I.D. receive free admission to Fairchild Tropical Botanic Garden during regular daytime hours.**

# Next Generation Sunshine State Standards

## EXPLORER

### Living With Plants:

**Grades K-2:** SC.K.L.14.3, SC.1.L.14.2, SC.1.L.17.1, LA.K.1.1.1, LA.K.1.6.1, LA.K.1.6.6, LA.K.5.2.1, LA.K.5.2.6, LA.1.1.6.1, LA.1.1.6.5, LA.1.5.2.1, LA.1.5.2.2, LA.1.5.2.6, LA.2.1.6.1, LA.2.1.6.5, LA.2.5.2.1, MA.K.G.2.3, PE.K.C.1.2, PE.K.R.1.4, PE.1.C.1.2, PE.1.R.1.3, PE.2.C.1.2

### Life In The Rainforest:

**Grade 3:** SC.3.N.1.1, SC.3.N.1.2, SC.3.N.1.3, SC.3.N.1.6, SC.3.N.1.7, SC.3.N.3.2, SC.3.P.9.1, SC.3.L.14.1, SC.3.L.14.2, SC.3.L.17.2, LA.3.1.6.1, LA.3.1.6.3, LA.3.1.6.5, LA.3.4.2.2, PE.3.C.1.2, PE.3.R.1.1, PE.3.R.1.3

### Where We Live:

**Grade 4:** SC.4.N.1.1, SC.4.N.1.2, SC.4.N.1.4, SC.4.L.17.2, SC.4.L.17.3, SC.4.L.17.4, LA.4.1.6.1, LA.4.1.6.5, LA.4.4.2.2, LA.4.5.2.1, MA.4.G.3.1, MA.4.G.3.3, PE.4.C.1.2

### Tropical Explorations:

**Grade 5:** SC.5.N.1.1, SC.5.N.1.6, SC.5.N.2.1, SC.5.L.15.1, SC.5.L.17.1, LA.5.1.6.1, LA.5.1.6.3, LA.5.1.6.5, LA.5.1.6.11, MA.5.A.4.1, MA.5.A.4.2, MA.5.G.5.2, MA.F.G.5.3, MA.5A.6.5, MA.5.S.7.2

## DISCOVERY

### Biomimicry – Designed By Nature

**Grade 3:** LA.3.5.2.1, SS.3.G.1.1, SS.3.G.1.2, SC.3.N.1.6, SC.3.N.3.2, SC.3.N.3.3, SC.3.N.1.1, SC.3.L.17.2

**Grade 4:** LA.4.5.2.1, LA.4.5.2.4, SS.4.G.1.4, SC.4.N.1.1, SC.4.E.6.5, SC.4.E.6.6, SC.4.P.9.1, SC.4.L.16.2, SC.4.L.17.1, SC.4.L.17.3, SC.4.L.17.4

**Grade 5:** LA.5.5.2.1, SS.5.G.1.2, SC.5.N.1.1, SC.5.L.14.2, SC.5.L.15.1, SC.5.L.17.1

**Grade 6:** LA.6.5.2.1, SS.6.G.1.4, SC.6.N.1.1, SC.6.N.1.5

**Grade 7:** LA.7.5.2.1, SS.7.G.6.1, SC.7.N.1.1, SC.7.E.6.6, SC.7.L.15.2, SC.7.L.17.1

**Grade 8:** LA.8.5.2.1, LA.8.5.2.2, SC.8.N.1.1, SC.8.L.18.1, SC.8.N.3.1, SC.8.N.4.2

**Grade 9-10:** LA.910.5.2.1, SS.912.G.1.3, SS.912.G.1.4, SC.912.L.17.4, SC.912.L.17.9, SC.912.L.17.15, SC.912.L.17.16, SC.912.L.17.17, SC.912.L.17.18, SC.912.L.17.20, SC.912.N.1.1, SC.912.E.6.6

**Grade 11-12:** LA.1112.5.2.1, SS.912.G.1.3, SS.912.G.1.4, SC.912.L.17.4, SC.912.L.17.9, SC.912.L.17.15, SC.912.L.17.16, SC.912.L.17.17, SC.912.L.17.18, SC.912.L.17.20, SC.912.N.1.1, SC.912.E.6.6

### Symbiosis – Butterflies And Plants

**Grade 3:** LA.3.5.2.1, SS.3.G.1.1, SS.3.G.1.2, MA.3.A.1.1, MA.3.G.5.2, SC.3.L.14.1, SC.3.N.1.6, SC.3.N.1.1, SC.3.L.17.1



**Grade 4:** LA.4.5.2.1, LA.4.5.2.4, SS.4.G.1.4, MA.4.A.6.6, SC.4.N.1.1, SC.4.L.16.1, SC.4.L.16.3, SC.4.L.16.4, SC.4.L.17.2, SC.4.L.17.4

**Grade 5:** LA.5.5.2.1, SS.5.G.1.2, MA.5.G.5.3, SC.5.N.1.1, SC.5.L.14.2, SC.5.L.15.1, SC.5.L.17.1

**Grade 6:** LA.6.5.2.1, SS.6.G.1.4, MA.6.A.3.1, SC.6.N.1.1

**Grade 7:** LA.7.5.2.1, SS.7.G.6.1, MA.7.A.5.2, SC.7.N.1.1, SC.7.E.6.6, SC.7.P.10.1, SC.7.P.10.2, SC.7.P.10.3, SC.7.L.15.2, SC.7.L.15.3, SC.7.L.17.3

**Grade 8:** LA.8.5.2.1, LA.8.5.2.2, MA.8.A.4.1, SC.8.N.1.1

**Grade 9-10:** LA.910.5.2.1, SS.912.G.1.3, SS.912.G.1.4, MA.912.A.3.3, SC.912.L.15.13; SC.912.L.17.4, SC.912.L.17.8, SC.912.L.17.16, SC.912.N.1.1

**Grade 11-12:** LA.1112.5.2.1, SS.912.G.1.3, SS.912.G.1.4, MA.912.A.3.3, SC.912.L.15.13, SC.912.L.17.4, SC.912.L.17.8, SC.912.L.17.16, SC.912.N.1.1

## **Biodiversity: Cultivating Healthy Ecosystems**

**Grade 3:** SC.3.N.1.1, SC.3.N.1.2, SC.3.N.1.6, SC.3.N.3.1, SC.3.N.3.2, SC.3.L.17.2, SS.3.G.1.2, LA.3.1.6.1, LA.3.1.6.3, LA.3.1.6.5, LA.3.4.2.2, LA.3.5.2.1, MA.3.A.1.1, MA.3.A.1.2, MA.3.A.1.3, MA.3.A.2.4, MA.3.A.4.1, MA.3.S.7.1

**Grade 4:** SC.4.N.1.1, SC.4.N.1.2, SC.4.N.1.6, SC.4.N.1.8, SC.4.L.17.2, SC.L.17.4, LA.4.4.1.6.1, LA.4.1.6.5, LA.4.4.2, LA.4.5.1.1, LA.4.5.2.1, LA.4.5.2.5, MA.4.A.1.1, MA.4.A.1.2, MA.4.A.2.3, MA.4.G.3.3, MA.4.A.4.2

**Grade 5:** SC.5.N.1.1, SC.5.N.2.2, SC.5.L.15.1, SC.5.L.17.1, SS.5.G.1.4, SS.5.G.4.1, SS.5.G.4.2, LA.5.1.6.1, LA.5.1.6.5, LA.5.5.1.1, MA.5.A.1.3, MA.5.A.2.3, MA.5.G.5.3

**Grade 6:** SC.6.N.1.1, SC.6.N.1.4, SC.6.N.1.5, SS.6.G.1.3, LA.6.1.6.1, LA.6.1.6.5, LA.6.5.2.1, LA.6.5.2.2, MA.6.A.1.1, MA.6.A.1.2, MA.6.A.3.4, MA.6.A.5.1, MA.6.A.5.2, MA.6.S.6.1, MA.6.S.6.2

**Grade 7:** SC.7.N.1.1, SC.7.N.1.2, SC.7.N.1.5, SC.7.E.6.6, SC.7.L.16.4, LA.7.1.6.1, LA.7.1.6.5, LA.7.4.2.2, LA.7.5.1.1, LA.7.5.2.1, LA.7.5.2.3, MA.7.A.1.1, MA.7.A.1.6, MA.7.G.4.3, MA.7.S.6.1

**Grade 8:** SC.8.N.1.1, SC.8.N.1.2, LA.8.1.5.1, LA.8.1.6.2, LA.8.5.1.1, LA.8.5.2.1, LA.8.5.2.2, MA.8.S.3.1, MA.8.A.6.4

**Grade 9-10:** SC.912.L.17.7, SC.912.L.17.8, SC.912.L.17.20, SC.912.N.1.7, SS.912.G.1.3, SS.912.G.5.4, SS.912.G.5.6, LA.910.1.6.1, LA.910.1.6.2, LA.910.5.1.1, LA.910.5.2.1, LA.910.5.2.3, MA.912.A.1.4, MA.912.A.2.1, MA.912.A.2.2, MA.912.A.10.1, MA.912.A.10.2, MA.912.T.5.2

**Grades 11-12:** SC.912.L.17.7, SC.912.L.17.8, SC.912.L.17.20, SC.912.N.1.7, SS.912.G.1.3, SS.912.G.5.4, SS.912.G.5.6, LA.1112.1.6.1, LA.1112.5.1.1, LA.1112.5.2.1, LA.1112.5.2.2, LA.1112.5.2.4, MA.912.A.1.4, MA.912.A.2.1, MA.912.A.2.2, MA.912.A.10.1, MA.912.A.10.2, MA.912.T.5.2

# FAIRCHILD TROPICAL BOTANIC GARDEN

Exploring, Explaining and Conserving the World of Tropical Plants  
10901 Old Cutler Road, Coral Gables, Florida 33156-4296 USA  
305.667.1651 [www.fairchildgarden.org](http://www.fairchildgarden.org)

**O**ur mission is to save tropical plant diversity by exploring, explaining and conserving the world of tropical plants; fundamental to this task is inspiring a greater knowledge and love for plants and gardening so that all can enjoy the beauty and bounty of the tropical world.

**Fairchild Tropical Botanic Garden's education programs reach more than 120,000 South Florida students annually and are possible thanks to generous support from**

## THE BATCHELOR FOUNDATION

and American Honda Foundation, Assurant, BankAtlantic, Bank of America, Leslie Bowe, Shepard Broad Foundation, Inc., The Children's Trust, Dadeland Framing, The Everglades Foundation, Fairchild Palms, FIU-UM Miami Consortium for Latin American and Caribbean Studies, County Commissioner Sally Heyman, Barbara Hobbs, Bernard and Marilyn Horowitz, Kendel Kennedy and The Ethel & W. George Kennedy Family Foundation, Inc., Dr. William Loftus, The Alex and Agnes O. McIntosh Foundation, Miami-Dade County Cultural Affairs Council, Miami-Dade County Mayor and Board of County Commissioners, Miami-Dade County Department of Environmental Resources Management (DERM), Stuart A. Miller, The Edward S. Moore Family Foundation, Inc., National Environmental Education Foundation, Peacock Foundation, Inc., Publix Super Markets Charities, Inc., Michael and Diane Rosenberg Family Foundation, Inc., Leslie Saiontz, Sue and Alan Steinberg, United Way of Miami-Dade, Whole Foods Market, Zickler Family Foundation, and anonymous donors, among others.

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## Volunteers

Volunteers play a vital role in Fairchild's education programs. Become a Fairchild volunteer. For more information visit [www.fairchildgarden.org](http://www.fairchildgarden.org) or call the Volunteer Department 305.667.1651 ext. 3324.