



GARDEN EXPLORATIONS



FAIRCHILD TROPICAL BOTANIC GARDEN

Welcome!

Welcome to Fairchild Tropical Botanic Garden! We ask that you please read the following rules to your group before you begin your tour.

- Stay with your group during your entire visit.
- Respect our wildlife; do not touch, chase, or feed the animals.
- Walk only on designated paths or grass.
- Do not climb trees or pick flowers or fruits from plants.
- Keep your voices low to respect other guests.
- Self-guided groups are not allowed to use the Garden Cafe, Gift Shop, or Tram.

In your backpack, you will find the materials needed for this program. Before leaving the Garden, we ask you to please ensure that all the materials are back in this backpack. At the end of your visit, return this backpack to the Visitor Center. If any materials are lost or damaged, the cost will be deducted from your deposit.

ACTIVITY SUPPLIES:

- 3 Garden Exploration Program booklets
- 30 *Desert Nature Hunt* worksheets
- 30 *Butterfly Nature Hunt* worksheets
- 30 *Rainforest Nature Hunt* worksheets

Get Started:

1. Review the habitat descriptions in the backpack.
2. Using the map, travel through each habitat, completing the corresponding scavenger hunt.

Before leaving the Garden, don't forget to:

1. Look for the survey that is inside the backpack. Your feedback is appreciated and it helps us improve our program! Please make sure to complete the survey and put it back in the program backpack.
2. Return the backpack to the Visitor Center entrance where you picked it up.

Program Objectives

- Students learn key components of different ecosystems.
- Students understand various plant adaptations.
- Student identify and observe various local butterfly species.
- Students recognize a variety of plants.

How to use the map:

Orient your map to the location where you are at. As your group is walking, try to pay attention to any landmarks found around you and try to locate them on the map.

We have pre-selected areas in the Garden that are suited for the activities in this packet. These areas are designated on the map with a color-coded star.



Habitat Descriptions

Today you will be exploring the world of tropical plants just as Dr. David Fairchild did many years ago! Dr. David Fairchild was one of the greatest plant explorers of all time. He traveled the world for 37 years searching for plants of potential use to people. His far reaching travels brought to this country plants such as mangoes, alfalfa, nectarines, cucumbers, soybeans, garbanzo beans, horseradish, bamboos, and flowering cherry trees.

You will explore three different habitats in the Garden, while completing a scavenger hunt. Observe your environment carefully and with detail, and work with your group to complete your scavenger hunts. Enjoy your plant exploration!



Spiny Forest

The Lin Lougheed Spiny Forest of Madagascar showcases some of the wonderful plants found in Madagascar's spiny desert ranges and brings attention to the woeful destruction of these natural areas. This exhibit is a representative display of the variety of unusual and rare plants found in this threatened habitat, of which ninety five percent are endemic, meaning they are found nowhere else in the world. Collection of wood for fuel and construction material, overgrazing, land clearing for agriculture, and the spread of non-native plants are impacting these forests. Desert plants have many unique adaptations that allow them to survive extreme temperatures and small quantities of water.



Butterfly Garden

Butterflies and plants have a symbiotic relationship, meaning they depend on each other for survival. Plants provide caterpillars and butterflies food and shelter, while butterflies pollinate flowering plants, facilitating their reproduction. This interdependence highlights the importance of the conservation of biodiversity; the loss of an individual species can have devastating impacts on an entire ecosystem. Butterflies lay their eggs on "host plants," which provide food for caterpillars after they hatch. In our garden we have provided host and nectar plants for a variety of butterfly species.



The Rainforest

The Fairchild rainforest is a tiny example of what is known as a tropical rainforest which are typically found much closer to the equator. Rainforests consist of four levels: the emergent level, the canopy, the understory and the forest floor. At the current global rate of rainforest destruction, one and half acres of rainforest are destroyed each second, meaning an area similar in size to our rainforest would be destroyed in less time than it would take to read this sentence. With the incredible amount of plant and animal diversity found in the rainforests, it is possible that species are being lost before they are even being discovered.

Desert Nature Hunt

Can you find plants with these adaptations? Mark an X in each box when you spot them.



Structure

Some plants have adapted their physical structure to collect water. Do you see any funnel shaped plants?



Modified Leaves

Desert plants have reduced leaf surface to minimize water loss. Can you find a plant with small leaves or spines?



White Hairs

What is the last thing to dry when you take a shower? Your hair. Can you find a plant with white hairs at the top? White hairs reflect the sun and help retain moisture.



Color

The desert can be very hot! Can you think of a color that can make you feel cool? Look around you, what colors do you see in the desert? Find a silvery colored plant.



Waxy Coating

It's easy to sweat in the intense heat of the desert! Can you find a plant with a thick and waxy coating on its leaves?



Shade Providers

Plants can use their physical structures to create shade. Can you find any young plants growing on the shade of more established plants?

Butterfly Nature Hunt

Can you find these butterflies and caterpillars in the Garden? Mark an X in each box when you spot them.

Julia

This butterfly has long and narrow bright orange wings and usually flutters around passion vines.



Atala

Look for a small butterfly with an orange abdomen and black wings with blue iridescent dots.



Queen

This caterpillar looks just like the monarch, with black and yellow stripes. However, the queen has an extra set of "antennae."



Cloudless Sulfur

It won't be hard to find this bright yellow butterfly, especially if you're looking near the sennas.



Zebra Longwing

Look for these striped butterflies near the passion vine. What other animal do they remind you of?



Monarch

This popular butterfly has orange and black stripes with white spots. It's favorite flower is the milkweed.



Rainforest Nature Hunt

Did you see these organisms in the Rainforest? Mark an X in each box when you spot them.

Orchids

These plants have beautiful flowers and use other plants for support. Their roots are not underground. They are out in the open and they are called aerial roots.



Decomposers

They are great recyclers in the food chain! They break down dead and decaying organisms, so that their nutrients can go back into the soil.



Monstera Leaf

It rains so much in the rainforest that leaves have adapted to let that water weight go down fast. Find this swiss cheese looking leaf!



Cacao

This tree is where chocolate comes from. Look for a small tree with fruit or flowers growing right out of the trunk.



Peach Palm

This palm does not like to be climbed on by rainforest animals. Look for a palm with thorns on its trunk.



Lianas

These plants begin their life on the forest floor, but climb their way up to get some sunlight. Look for these woody vines.



Conclusion

You have now explored three different habitats around the Garden. Think back to the natural elements and plant adaptations you observed during your visit to answer the following questions.

- Did you notice any differences in plant colors and shapes in the rainforest compared to the desert? If you answered yes, can you think of the reason(s) why?
- Can you name one plant you saw for each of the habitats you visited?
- Do you remember the name of one butterfly you observed at the butterfly garden?
- What special characteristic(s) did that butterfly have that will help you identify it next time you see it?

Thank you for coming to Fairchild Tropical Botanic Garden! We hope that you enjoyed your visit and that you will come back to keep exploring and learning about tropical plants.

Before you leave, please remember to put back all the materials inside the backpack, fill out the survey and return the backpack to the Visitor Center.



Our 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.



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Exploring, Explaining and Conserving the World of Tropical Plants

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