

# Pre-Visit Guidebook



## Preparing for Your Classroom Field Trip

Garfield Park Conservatory



# Preparing For Your Field Trip:

## A Guide for Teachers

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# Preparing for Your Visit

## Before You Arrive

We recommend that teachers visit the Conservatory prior to their trip and familiarize themselves with the collection and its various habitats. Please consider taking one of our conservatory trainings. (See our website for upcoming Conservatory Workshops. All workshops earn C.P.D.U. credits!)

When preparing your class for their visit, explain that the Conservatory is similar to any museum. Our collection includes a wide variety of rare and unique plants which are maintained and cared for by our horticulturists every day. Encourage students to treat the plants as they would any valued museum object.

## Some Things To Do With Your Class Before Your Visit...

- **Take a Walk**

Explore your neighborhood and look at the trees and plants. When you come for your visit, compare your neighborhood environment to the habitats in the Conservatory.

- **Read a Book**

Storybooks about plants, rainforest products and desert and tropical environments can spark your students' curiosity about the collections at Garfield Park Conservatory.

- **Ask Questions**

Our greenhouses are places of wonder for children with questions. Ask your class what they already know about conservatories and what they would like to find out.

# Getting to the Conservatory



## How to Get Here By Car

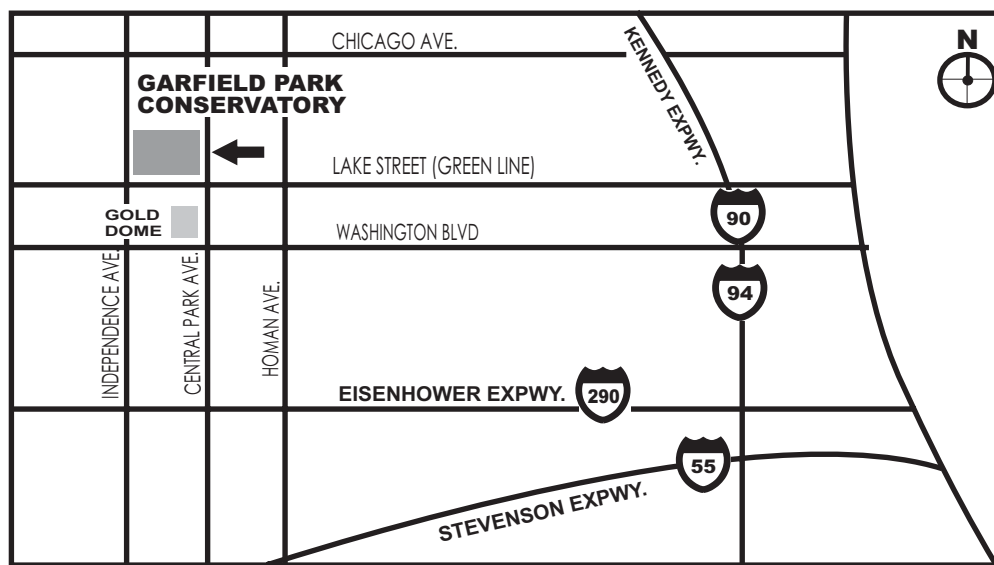
Garfield Park Conservatory is located just fifteen minutes from downtown Chicago. Take 290 west, exit at Independence Avenue (3800 west) and travel north. Turn east (right) onto Washington Blvd. Turn north (left) onto Central Park Ave (3600 west).

**We are located at 300 N. Central Park Avenue**



## How to Get Here By Train

Take the CTA Green Line to the **Conservatory** stop (Central Park Avenue). Exit the station and take stairs down to Lake Street. You will be just steps from the parking lot and our front door!





# The Nuts and Bolts



## Parking

The Conservatory offers free parking every day. The parking lot is located on Central Park Ave. just south of the Conservatory.



## Bus Drop-off

Buses can drop-off and pick-up at the circular drive in front of Conservatory entrance. Access the drive from the southbound lane of Central Park Avenue.



## Hours and Admission

We are open every day of the year from 9:00 am - 5:00 pm, and Thursdays until 8:00 pm. Admission is free for all Chicago schools. Schools outside of Chicago are asked to pay \$60 for unscheduled visits. If rooms are to be rented for classroom and lunchroom use, a fee is charged. (See registration form.)



## Lunch

The Conservatory now has lunchroom facilities in the entry pavilion area by reservation only. Picnic-style lunching is also available (without reservations) on a first-come basis in Horticulture Hall and outside when weather permits.

School groups should bring lunches, as there are no food vendors on site. A catered lunch can be pre-ordered from one of our preferred vendors. (See our website for info on these caterers.)



## Restrooms

Restrooms are located in the main lobby of the Conservatory.



# Field Trip Preparation:

a Teacher's Guide

## Guidelines for Chaperones

**Teacher:** Please furnish each adult with a copy of these Guidelines prior to your arrival at the Conservatory.

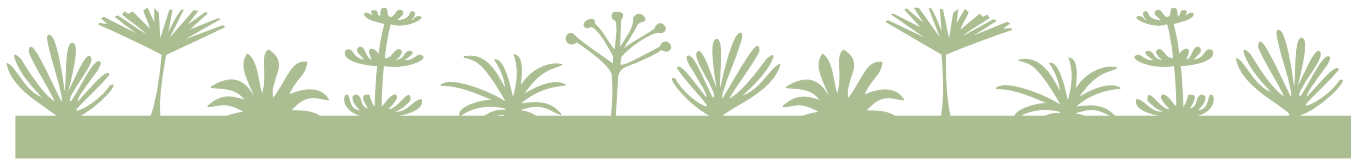
**CHAPERONES:** In order to maximize each child's experience, please read the following thoroughly.

- The Conservatory requires a minimum of **1 adult** for every **10 children**.
- Pathways in the Conservatory can be *wet* and *slippery*. For safety reasons, running is *not* allowed. Please stay on the pathways at all times.
- Some plants can be harmful when touched; please make sure children do not touch plants unless they are told otherwise. Most plants in the Children's Garden can be handled safely.
- **All** food waste, wrappers and containers must be placed in proper trash receptacles.
- Please take a chance to read about the Conservatory highlights provided by the teacher. This will make the trip much more enjoyable for all involved!!

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The **Children's Garden** is for children! They are encouraged to:

- **Have Fun**
- **Make noise**
- **Ask questions**
- **Climb on the giant seed**
- **Slide down the slide**
- **Operate the cranks on displays**
- **Sit on boulders**



## Important to Note:

- There is no food to purchase at the Conservatory- students should bring their own sack lunches. If a room is NOT being rented to lunch in, and students will be eating in Horticulture Hall, we suggest that teachers bring a large cardboard box to store lunches in while students explore the Conservatory.
- There are no areas to hold coats and book-bags if rooms are not being rented. We suggest you leave your valuables and packs on the bus.
- There are Exploration Kits that teacher's can use to help explore the Conservatory on a deeper level. If you would like to rent Exploration Kits for your classroom trip, please indicate this on your registration form.
- Teachers can download a free scavenger hunt for their students. See the field trip page for link to a FUN SCAVENGER HUNT!



# About the Garfield Park Conservatory

## Conservatory History

### From Three to One

In the late 19th century, each of Chicago's three large West Side parks had its own small conservatory and propagation greenhouses. After 20 years of use, these conservatories fell into a state of disrepair and became obsolete. In 1905 The West Park Commission's general superintendent and chief landscape artist, Jens Jensen, demolished the three smaller greenhouses in Humbolt, Douglas and Garfield Parks to create what was intended to be "the largest publicly owned conservatory under one roof" in the world in Garfield Park. Many of the original plantings came from the three smaller West Side conservatories.

### A New Vision

Constructed between 1906 and 1907, Garfield Park Conservatory was designed by Jens Jensen in collaboration with Prairie School architects Schmidt, Garden and Martin and the New York engineering firm of Hitchings and Company. It represents a unique collaboration of architects, engineers, landscape architects, sculptors and artisans. Jensen conceived the Conservatory as a series of naturalistic landscapes under glass, a revolutionary idea at the time. The simple yet strong shape of the structure, which is meant to emulate the haystacks of the Midwest, complements the collection of plants it houses.

### The Conservatory Today

Referred to as "landscape art under glass", the Garfield Park Conservatory occupies approximately 4.5 acres inside and out, and includes cold frames and propagating houses where thousands of plants are grown each year for displays in Garfield, Lincoln and Grant Parks. Located in the midst of historic Garfield Park on Chicago's redeveloping West Side, the Conservatory is one of Chicago's best kept secrets and one of the nation's botanical treasures. Both Garfield Park and its conservatory are listed on the National Register of Historic Places.

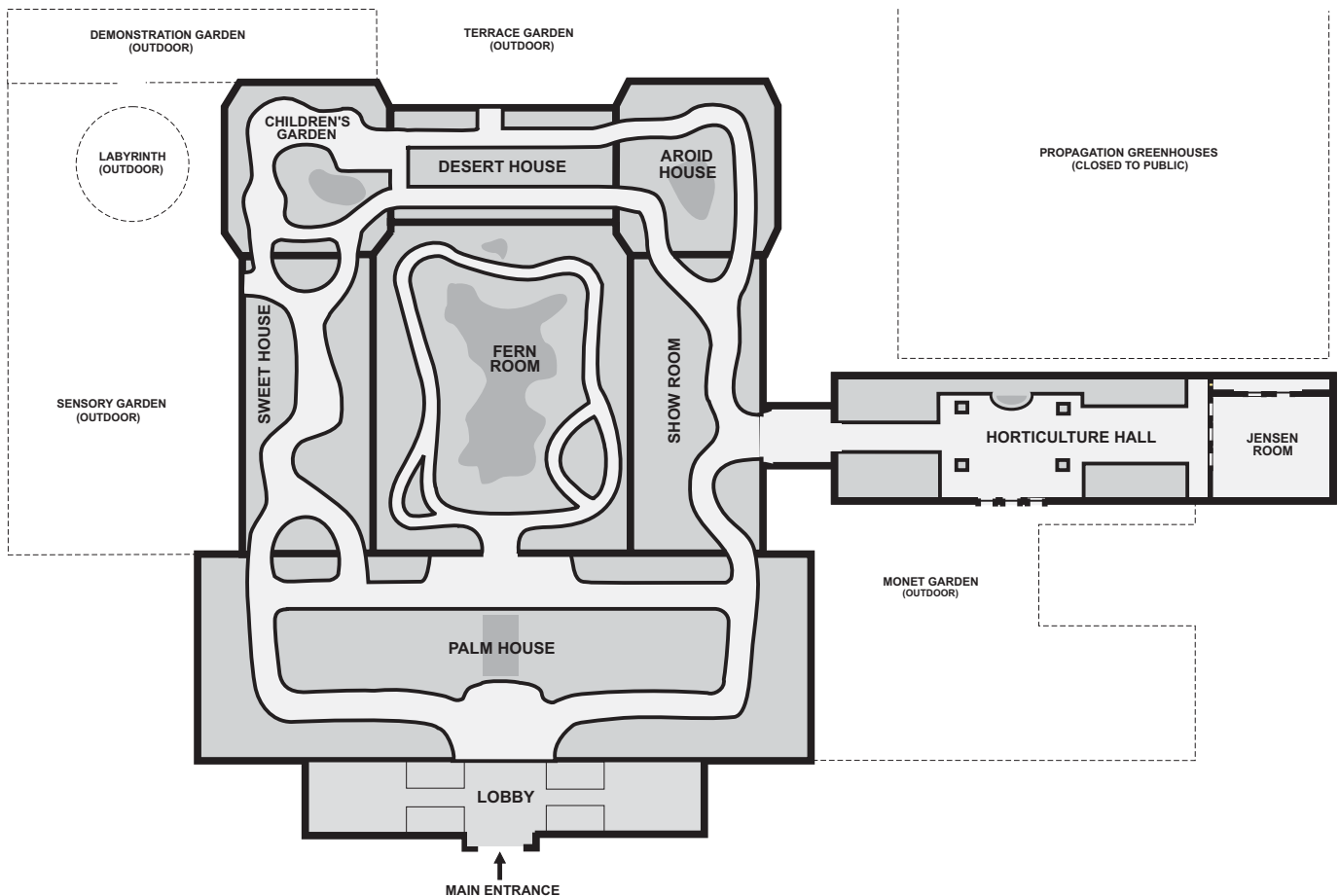
# The Conservatory at a Glance

## Finding Your Way Around

Although the Conservatory is a big place, it is actually quite easy to navigate once you know how it is organized. The outdoor gardens are open to the public April - October and reach their peak from mid-to late summer. The indoor collections, predominately tropical and desert plants, are housed in a series of seven large greenhouses.

The main display houses form a circular cluster with the Fern Room at the center (see map below). Horticulture Hall, which connects to this grouping, offers space to sit down, relax and have a bite to eat. There is limited seating in the Hall which is offered on a first-come basis.

Your Self-Guide Kit will focus on the six greenhouses which contain the main body of the Conservatory's permanent collection. These are: Palm House, Fern Room, Sweet House, Children's Garden, Desert House and Aroid House.



# Map of the Conservatory with Highlights



# Palm House



## 1 Where to START:

Entrance to Palm House (between the front lobby and the reflecting pool)

## 2 Questions to ASK:

- How does this room feel?
- Why do you think this room is so warm and humid?
- Do the plants in this room look like plants that you see around your home or school?

## 3 Palm House FACTS:

The plants in this room are all **tropical** plants. This means that they require lots of moisture and only grow in areas of the world which are warm all year round. Because of our cold winters, none of these plants would survive outside in Chicago.

Palms are trees with tall, branchless, column-shaped trunks. They are topped with a large crown of leaves and bear fruit ranging from coconuts to dates. Most of the tall trees in this room are palms. One of the easiest ways to identify palms is by their leaf shape...

LOOK for these kinds of leaves.



Fan



Feather



Fishtail

## 4 LOOK For:

### THATCH PALM

Have you ever seen a hairy tree? The Thatch Palm protects itself from heat and harmful insects with a shaggy covering. The thatch can be used for roofing material or to make mattresses and cushions.

### CARNAUBA PALM

The Carnauba Palm, called the "tree of life" in Brazil, protects its leaves from loss of moisture by secreting a coating of carnauba wax. The wax is harvested by drying the leaves until it flakes off. Carnauba wax has many uses. It is a principal ingredient in car and furniture polishes, dental floss coating and gummie bears!

### DOUBLE COCONUT

The Double Coconut tree can grow to 100 feet in height (the Palm House roof is 65 feet high). The only place in the world where these trees grow is on the Seychelles (pronounced say-shells) Islands, off the east coast of Africa. The Double Coconut tree produces the biggest seed in the world - weighing between 30 and 50 pounds!

# Fern Room



## 1 Where to START:

Fern room stairs

## 2 Questions to ASK:

- What do you think of when you look at this room?
- Does this environment remind you of anything?
- What kinds of animals would you imagine live in this kind of environment?

## 3 Fern Room FACTS:

### In the time of the DINOSAURS

In 1908, when Jens Jensen designed this room, he wanted it to represent what Chicago might have looked like 300 million years ago when dinosaurs roamed the earth. Many plants in this room are considered primitive plants, or members of plant groups which grew during these prehistoric times.

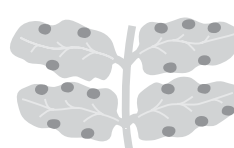
### What is a FERN?

Ferns are plants that have no flowers or seeds and reproduce by **spores** (tiny brown specks). Ferns come in a variety of shapes and sizes and store spores on the underside of their leaves in tiny, patterned clusters called **sori**.

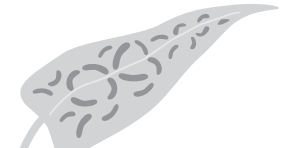
Sori patterns can be fun to look for.  
Here are a few examples:



Parallel



Marginal



Scattered

## 4 LOOK For:

### FERNS

There are many different kinds of ferns in the Fern Room. Some are small and close to the ground, some are growing on the rocks and others, like the Tree Ferns, are tall enough to walk under! To identify ferns, check the underside of the leaves for sori patterns.

### GIANT DIOON CYCADS

Along with ferns, cycads are among the oldest types of plants on earth. Cycads have frond-type leaves and produce large, seed-bearing cones which resemble huge pinecones.

*\* The two Giant Dioons on either side of the stairs are estimated to be around 250 years old, which means they would have been alive when George Washington was president of the United States!*

### SWIMMERS, SLIDERS AND CREEPY CRAWLERS

- The Fern Room pond houses two kinds of fish. The large ones are Japanese koi and the smaller are goldfish. They share the pond with our resident turtles (red-eared sliders).
- Look carefully - the rocks and mossy habitats in the Fern Room can also be home to a fascinating array of life. Search for millipedes, pill bugs and snails and then use the magnifying glasses for a closer look!

# Sweet House



## 1 Where to START:

East end of Sweet House (next to Palm House)

## 2 Questions to ASK:

- What are some of your favorite types of candy?
- Where do you think the ingredients for these candies come from?

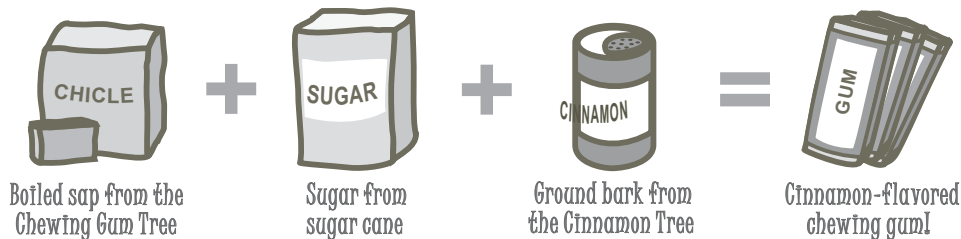
## 3 Sweet House FACTS:

The Sweet House contains plants that either directly or indirectly tickle your sweet tooth. These plants include: chocolate, sugar cane, figs, pineapples, coconuts, cinnamon, chewing gum, mangos, papayas, vanilla and bananas.

What these plants have in common is our enjoyment of them in candy and other sweets. The room honors an important part of Chicago's history as the Candy Capital of the World and the role of Chicago's west side in that history.

### Sweet House Recipes:

Many candy and dessert recipes begin with plant products found in this room. Look at the example below and then encourage your students to seek out ingredients of their favorite treats!



## 4 LOOK For:

### CINNAMON TREE

Cinnamon grows naturally in the wild in Sri Lanka and south-western India. The cinnamon we eat as a spice is actually the bark of the cinnamon tree which has been ground to a fine powder. Cinnamon is used as a flavoring for sweets, curry powder, incense, perfumes, dental preparations and soaps.

### BANANA GROVE

The banana plant is actually an herb, not a tree. When the plant is mature, it produces one long stalk with many flowers. Each flower will become a banana, gradually bending upward as it develops. Banana plants fruit only once and are then cut down. New plants develop at the base of each mature plant.

### CHOCOLATE TREE

Each season, Chocolate trees can produce up to 6,000 flowers which cover the trunk and branches. When pollinated, the flowers can become elongated pods about the size of a small coconut. Each pod contains 30 - 40 cocoa beans, the foundation for all the world's chocolate!

# Children's Garden



## 1 Where to START:

Next to the giant seed

## 2 Questions to ASK:

- Why do plants have flowers?
- What do plants need to grow?
- From where do most plants come?

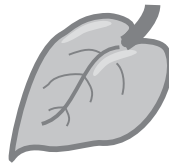
## 3 Children's Garden FACTS:

With areas to play, explore and learn, the Children's Garden combines a classroom, a playground and a beautiful display garden!

The room is designed to inform young children about the life cycle of plants. From the giant seed at the entrance to "Buzz" the bee hovering overhead, students can navigate the room and learn about the birth, growth and reproduction of plants as they explore.



Each dormant seed contains a baby plant (embryo). With water, warmth and oxygen, seeds wake up and germinate. Food stored within the seed feeds the embryo as it grows.



Plants are the only living things that make their own food. Leaves absorb sunlight and use it to produce sugar. The sugar is used by the plant to fuel its growth.



A flower's shape and color beckons birds, bats and bugs. As they snack on the flower's sweet nectar, they pick up and transfer pollen to other flowers.

## 4 LOOK For:

### SENSITIVE PLANT

The *Mimosa pudica*, or Sensitive Plant is a real trickster. When touched or shaken, its cells release water, causing the leaves to close rapidly and stems to wilt. This clever **defense mechanism** gives the plant a very unappetizing appearance to any hungry critters.

*Encourage your students to gently touch or stroke the leaves and watch the show!*

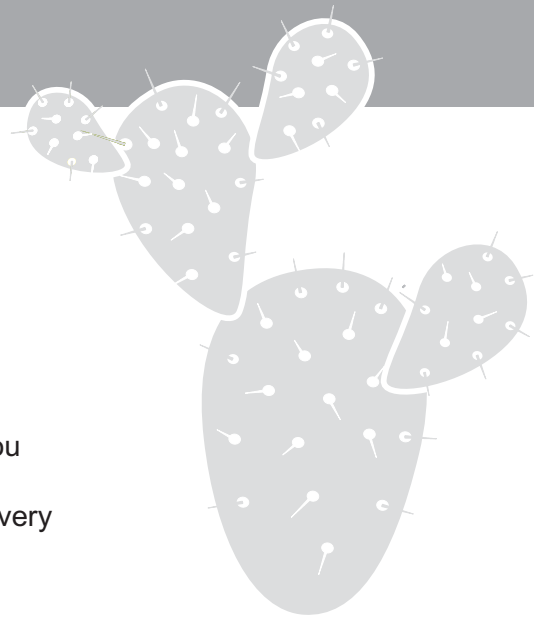
### BALSA TREE

Lumber from the Balsa Tree is strong and very lightweight. Because of this, it has been an important **plant product** throughout history. Some of the many uses for this unique wood include: boxes, model airplane construction, insulation, fishnet floats and raft building.

### CLIMB, CRANK AND SLIDE

The Children's Garden is the perfect place to let your students burn off some extra energy. Children can climb the giant seed (no jumping off please), turn the crank upstairs on the mezzanine to move Buzz the Bee into the giant flower, and zip down the slide!

# Desert House



## 1 Where to START:

South end of Desert House  
(next to the Children's Garden)

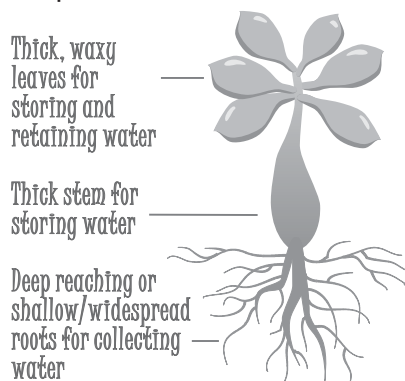
## 2 Questions to ASK:

- If you lived in the desert, what are some things you would need to survive?
- How do you think these plants live in places with very little water?

## 3 Desert House FACTS:

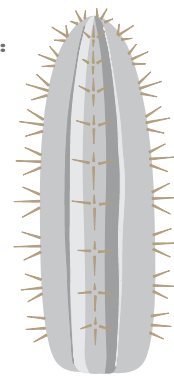
In very dry regions where water is scarce, some plants are able to survive for long periods between rainstorms. These plants, called **succulents**, have features which enable them to collect and retain as much water as possible.

All succulents have some adaptations such as thick, waxy leaves which allow them to survive life in the desert. In the case of cacti and euphorbs, spines and thorns help them endure heat and drought in a variety of ways.



### Thorns and Spines.

- Protect plant from predators
- Direct rain to the root system
- Dissipate heat from plant
- Shield the plant from wind



## 4 LOOK For:

### AGAVES AND ALOES

- Aloes and agaves can be identified by clusters of pointy, sharp-edged leaves which radiate from a central point.
- Because they bloom infrequently (every 20 - 30 years), many agaves are called "century plants".
- The juice from the aloe vera has long been used for its medicinal properties.

### GIANT SAGUARO CACTUS

A 250 year old Saguaro cactus can weigh up to 6 tons and grow to over 50 feet tall, making it one of the tallest cacti in the world! Our Saguaro skeleton shows the interior vertical ribs which act like huge drinking straws, drawing up water from the roots. As these ribs fill with water, the pleats of the cactus swell, giving it a "full" look.

### JADE TREE

The jade tree can store lots of water in its succulent leaves and stem, both of which are used for photosynthesis. Like many succulents, a single fallen leaf can produce roots and grow into a mature plant. Because they are easy to grow, jade trees have become very popular houseplants.

# Aroid House



## 1 Where to START:

Pathway next to the pond bench

## 2 Questions to ASK:

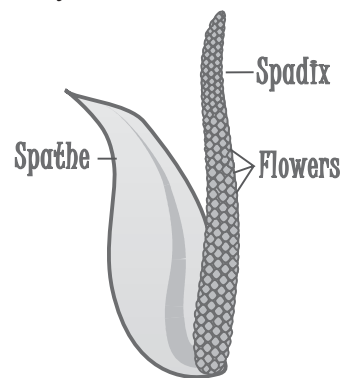
- Have you seen plants like these in your home, school or doctor's office?
- What kind of leaves would a plant need to capture the most sunlight?

## 3 Aroid House FACTS:

- Some of the more exotic tropical plants can be found in this room which contains one of the largest greenhouse collections of aroids in the United States. Aroids can be dazzling in their form, size and variety.
- Aroids grow naturally in the lower levels of tropical forests where sunlight is scarce. Because of their ability to thrive in these low light conditions, they have become popular and successful houseplants.

### You call that a FLOWER?

Aroids are distinguished by their reproductive structures. The spiky projection called the **spadix** is densely crowded with tiny flowers lacking petals. These flowers eventually develop into brightly colored berries (fruit). Attached near the base of the spadix is a leaf-like bract, called the **spathe**. The spathe is sometimes brightly colored and showy, leading to the common misconception that it is the plant's flower.



## 4 LOOK For:

### LEAF SIZE AND SHAPE

Plants absorb sunlight with their leaves and use it to make their own food in a process called **photosynthesis**. Because aroids naturally grow in low-light conditions, they have developed large, uniquely-shaped leaves to capture and absorb as much sunlight as possible. Encourage your students to see how many different leaf shapes they can find in this room.

### TRUMPET TREE

The Trumpet Tree, native to Central and South America, can reach a height of 60 feet at maturity. With fast-growing branches and wide leaves, it spans large areas to absorb maximum sunlight in tropical forests. The hollow branches and trunk are used to make floats, gutters and trumpets and are commonly inhabited by stinging ants!

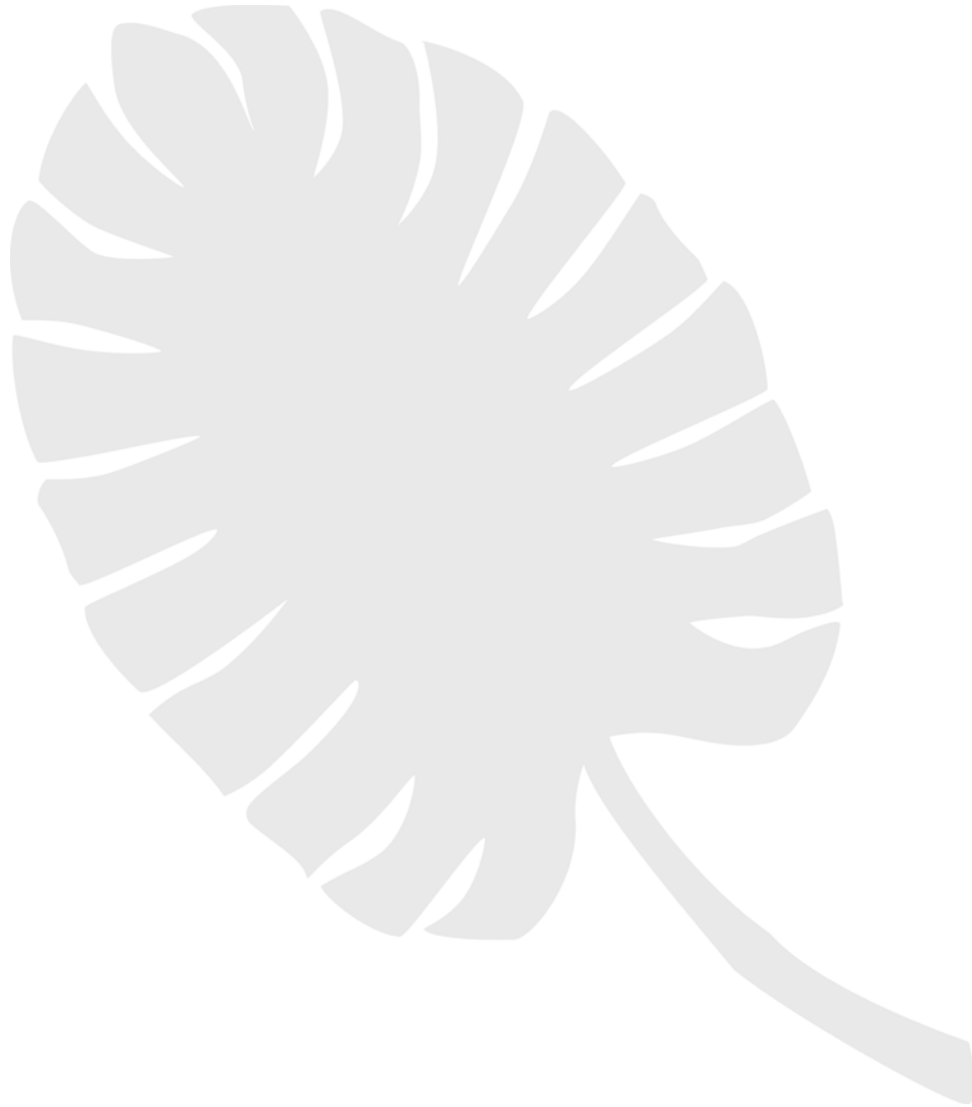
### GIANT PHILODENDRON

This plant provides a great example of large, flat leaves. These are practically big enough to use as an umbrella! Aroids commonly attach to taller trees as a clever way to reach the sun. They also have two types of **aerial roots**. The short roots growing out from the stem have adhesive root hairs which attach the plant to the climbing surface. The long feeding roots can dangle at great lengths and absorb water and nutrients.

# **chicago park district**

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## **garfield park conservatory alliance**



City of Chicago, Richard M. Daley, Mayor  
Chicago Park District, David Doig, General Superintendent  
312-742-PLAY  
312-747-2001 (TTY)  
[www.chicagoparkdistrict.com](http://www.chicagoparkdistrict.com)  
[www.garfield-conservatory.org](http://www.garfield-conservatory.org)

