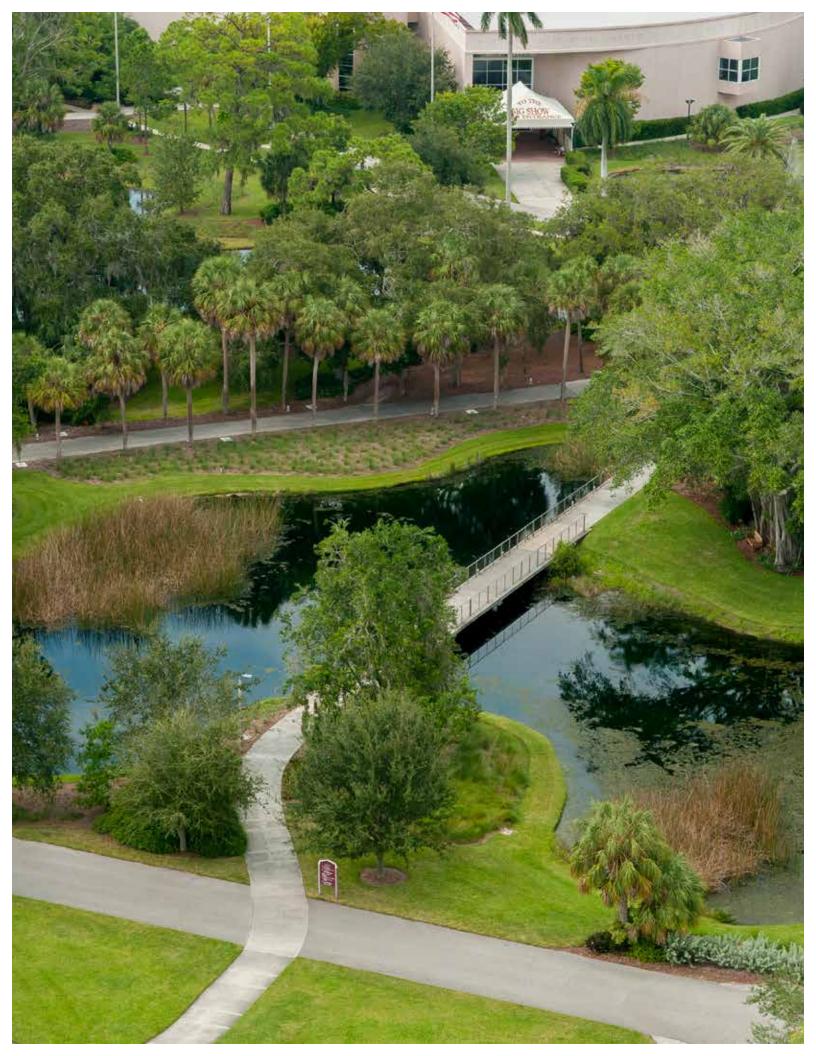
TEACHER GUIDE

The Ringling BAYFRONT GARDENS









BAYFRONT GARDENS

The John and Mable Ringling Museum of Art is renowned for its influential collection of European, Asian and contemporary art and its spectacular circus collection, but did you know The Ringling is also home to 66 acres of grounds and gardens? The Ringling is proud to be a Level II Arboretum, featuring the Millennium Tree Trail and spectacular views of Sarasota Bay. Stunning gardens include Mable Ringling's Rose Garden, the Dwarf Garden—a shade garden featuring bamboo and banyan trees, and the Secret Garden featuring Florida-friendly plants and pollinators.

WHY EXPLORE THE GARDENS?

The Bayfront Gardens are ripe with lesson opportunities. Whether you teach science, math, English language arts, visual art, social studies, or are just looking for a great picnic spot, the Bayfront Gardens provide a rich learning environment for students of all ages. The student workbook "Growing at The Ringling", provides STEAM activities for students to take a learning scavenger hunt to key environmental areas throughout campus. This teacher guide has been designed to provide background and contextual information for teacher use in all areas of the Bayfront Gardens.

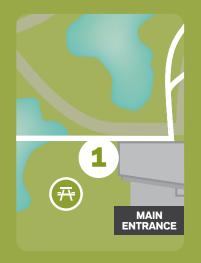


DWARF GARDEN

Lunch Spot (7\







The Dwarf Garden is named for the statues that can be found throughout the garden. Dwarf statues such as these are associated with commedia dell'arte theatre during the Italian Renaissance, where each statue represents a stereotypical character in Italian comedy. These statues were originally installed surrounding the Historic Asolo Theater and continue to delight visitors adjacent to the theater. This garden includes ample picnic tables and a shady lawn perfect for large or small group lunches.

Bamboo and banyan abound in this secluded garden. There are three species of trees colloquially known as the Banyan on campus. The species predominating in this garden Ficus altissima, sometimes known as strangler figs, were originally imported from Indonesia and thrive in South Florida's warm climate. Banyans are hemi-epiphytes, spending part of their lives with roots above ground. These trees attach themselves to a host tree and send down long rope-like roots, known as aerial roots, which resemble tree trunks. Can you find a host tree in this garden?

KEY PLANTS



Banyan Ficus altissima



Blue Bamboo Bambusa chungii



Black Bamboo Bambusa lako



Croton Codiaeum variegatum



Devil's Ivy Epipremnum aureum

What examples of ecological relationships can you find in this garden?

How have these plants adapted to thrive in the shade?

What types of animals might make this shade garden home?

The koi pond located adjacent to the Museum of Art is a fan favorite among our school students! This pond is home to a variety of wildlife including koi fish, a large colorful species of carp. Birds commonly frequent this pond, and you are likely to spot an egret, cormorant, or even a great blue heron while visiting. Keep a close eye on students while exploring this pond, as slippery plastic lines the edges of this pond to protect against erosion.

This pond is one of three filtration stations located throughout The Ringling campus. Water runoff from the roads collect in this pond, where the sand and sediment at the pond bottom filters out toxins or chemicals. Water filters through multiple filtration stations before ending up in Sarasota Bay.

KEY SPECIES



Koi Cyprinus rubrofuscus



Umbrella Flat Sedge Cyperus involucratus



Soft-Shelled TurtlePelodiscus sinensis



White Ibis
Eudocimus albus

How many animals can you see who make this pond their home?

What role do the reeds and flat sedge play in this ecosystem?

Why might The Ringling have created a series of man-made ponds to filter water? What environmental benefits does this filtration system create?

TURTLE POND





BOLGER PLAYSPACE

Lunch Spot (7







The Bolger Playspace provides space for children to run, jump, and play in the lush environment at The Ringling. In addition to the jungle gyms, swings and slides you will discover laurel oak trees, banyan trees and an abundance of ferns. This shady playground also has ample picnic tables, making it a perfect location for lunch.

KEY PLANTS



Banyan Ficus altissima



Laurel Oak Quercus hemisphaerica



Cabbage Palms Sabal palmetto

This playspace was designed to reflect the natural environment. What elements do you see repeated in both nature and in the equipment?

Mable Ringling (1875-1929) loved gardening, especially growing roses. When Mable moved to this property in 1911, she started this elaborate rose garden, laid out in an Italian wagon wheel design. While none of the original roses planted by Mable survives, many of the 425 rose plants are of the same varieties she planted.

Please note: During the months of February and October the estate gardeners, with the help of many dedicated volunteers, cut back all of the roses. It usually takes two weeks to complete this work. Upon completion of the cut-back there are very few blooms. A beautiful flush of new blossoms is usually expected approximately six weeks after the cut-back.

KEY PLANTS



Cramoisi Superieur China



Anna Olivier Tea



Madame Antoine Mari
Tea. Earth-Kind



Spice Bermuda, found, Earth-Kind



Marie DalyPolyantha, found,
Earth-Kind



Arctic BlueFloribunda

 $\ensuremath{\textit{Bermuda}}$ – refers to roses in digenous to the island of Bermuda

China - refers to roses indigenous to Southwest China

Earth-Kind – roses that are naturally disease resistant and require fewer pesticides to care for

Floribunda – meaning "many-flowering", roses that were created by humans to flower abundantly

Found – roses naturally found in the wild, with no human tampering **Tea** – roses with pointed petals, named for their fragrance being reminiscent of black tea

What is your favorite rose in the garden? Why?

What differences do you notice between the roses' shape, smell, or color?

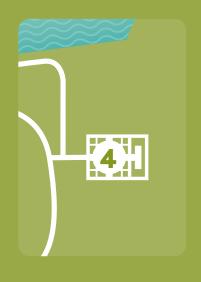
MABLE RINGLING'S ROSE GARDEN





SECRET GARDEN





Just north of Ca' d'Zan is Mable's Secret Garden, where she, John, and his sister Ida Ringling North are buried. Mable created this garden with plants given to her by friends and neighbors during her winters at Ca' d'Zan. Though none of Mable's original plants survive, today the Secret Garden is full of Florida-friendly plants. Students can expect to see bees, beetles, and butterflies busy at work in this garden.

Mable originally planted many varieties of plants in this garden, but over time, nature reclaimed the garden and the garden was lost. The Secret Garden was rediscovered in the 1970s by a local Boy Scout Troop who helped restore the once overgrown and hidden garden.

KEY PLANTS



Powderpuff Calliandra haematocepala Callistemon viminalis



Bottle Brush



Salvia Salvia coccinea



Porterweed Stachytarpheta cayennensis, S. indica



Sweet potato vine Ipomoea batatas



Blue Daze Evolvulus glomeratus



Firebush Hamelia patens

What characteristics of Florida weather might these Florida-friendly plants need to withstand?

What adaptations do you recognize in these plants that help them thrive in Florida's tropical climate?

The Bolger Campiello and Promenade offer stunning views of Sarasota Bay and Longboat Key. This paved walk runs alongside the bay whose clear water offers glimpses into the ecosystems below. The Bolger Campiello is a paved area perfect for large group activities and picnic lunches by the bay. The marbled terrace of Ca' d'Zan is open to the public and infuses the glamor of historic Ca' d'Zan with the stunning natural beauty of Sarasota Bay.

KEY SPECIES



Royal Palm Roystonea regia



MulletMugil cephalus



Brown PelicanPelecanus occidentalis



AnhingaAnhinga anhinga



Bottlenose Dolphin Tursiops truncates

How are ecosystems under water similar to ecosystems above land? How are they different?

What plant life can you see along the bay? What plant life can you see in the bay?

Why do you think the Ringlings chose to build their house directly on Sarasota Bay? What draws people to the waterfront? What dangers does building this close to the water pose?

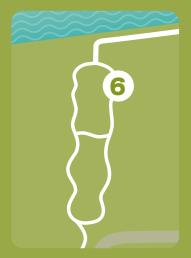
BOLGER CAMPIELLO + PROMENADE





MILLENNIUM TREE TRAIL





The Millennium Tree Trail was created to celebrate the turn of the new millennium and showcases trees that thrive in South Florida's hot and humid climate. Florida native trees such as the cabbage palm (the state tree of Florida), slash pine and laurel oak are scattered throughout the trail. Interwoven throughout the trail are non-native trees such as the Chinese Fan Palm, Queensland Bottle Tree, and Royal Poinciana, all of which thrive in the warm, seaside climate.

KEY TREES

FLORIDA NATIVES



Cabbage PalmSabal palmetto



Crepe MyrtleLagerstroemia indica



Southern Magnolia Magnolia grandiflora



Gumbo LimboBursera simaruba

RARE AND INTERESTING



Queensland Bottle TreeBrachychiton rupestris



Royal Poinciana Delonix regia



Chinese Fan Palm Livistona chinensis



Silver Bismarck PalmBismarckia nobilis 'Silver'

What is your favorite tree on this trail? Why is that?

Sketch your favorite tree paying attention to trunk and leaf shape, height, canopy spread, and root formation. How is this tree similar to and different from those around it?

