

## Teacher's guide for the Fact Search Exercise

Following is a brief background information you and your students will find fun and interesting as you tour the Gardens.

1. The **Camellia** is the state flower of Alabama, blooming red white pink or a mixture of these colors during the winter months of December, January, February, and March. It is not native to Alabama but rather to Japan. The Camellia was first introduced to the United States in the late 1700's but has quickly become a symbol of southern gardens. It is a very close relative of the plant that gives us tea leaves.
2. The **Oak-leaf hydrangea** is the new state wildflower of Alabama and produces sprays of beautiful white flowers in late spring. This plant is a native plant meaning that it grows naturally within the borders of Alabama. The leaves resemble those of an oak tree hence the name oak-leaf hydrangea. Both bees and butterflies enjoy the blossoms of this special plant.
3. The **Longleaf Pine** is the state tree of Alabama and several specimens are found along the pine walk near the Temple ruins. This tree was important source of timber for the south in building houses, shops railroads and making turpentine. At one time longleaf pine forests covered an area of 90 million acres extending from Virginia to Texas. This population has been reduced to about 2.5 million acres spread across the Southeast.
4. The **Fish** that live in the pools at Jasmine Hill not only add interest and look pretty but serve a very important purpose – they eat mosquito larvae. The larval stage of the mosquito lives in the water and feeds on algae and other debris. Without the hungry fish to control the larvae by eating them, Jasmine Hill would soon be overrun with pesky adult mosquitoes that bite! The fish in turn become food for hungry water birds like herons and egrets.
5. The **Monkey pine tree** has graceful needle covered branches that stay green all year long. If you look closely and use your imagination the boughs of the tree look a bit like a monkey's tail.
6. The **Lily Pads** growing in the water are a special kind of plant called an aquatic plant. The inside of the leaf is spongy and contains tiny pockets of air. This allows the leaves to float on the surface of the water where there is plenty of sunlight for growth and flowers. Lily pads also add oxygen to the water helping the fish to survive.
7. The **Umbrella plant** or papyrus growing at the reflecting pool and in the water at the formal garden got its name because the leaves resemble little umbrellas. This plant is a close relative of grass. The ancient Egyptians first made paper from a species of papyrus so it is a very important cultural plant.
8. The **Pecan tree** can be found on the large patch of lawn near the temple. It produces an abundance of nuts that ripen in the fall and are a favorite in southern recipes

especially pecan pie. Squirrels like the nuts too so you have to compete with them if you want to eat some pecan nuts! Be careful when you stand in a pecan orchard – the wood of pecan trees is very brittle and branches often fall to the ground without warning.

- 9 The **Magnolia tree** is a symbol of the south with its shiny green leaves and fragrant showy flowers. The magnolia keeps its leaves all year round, shedding the old ones as it produces new ones. Birds love to eat the red berries found in the fuzzy red cones in fall. Scientists have found fossil evidence of early magnolia relatives that date back 70 million years – about the time that Tyrannosaurus rex roamed the earth. The tree survived the extinction period but the dinosaurs didn't. Who do you think is tougher?.
- 10 **Anoles** are the colorful “lizards” or chameleons that inhabit the Gardens. While they are reptiles, they are not true lizards or chameleons. They feed on insects and are able to camouflage themselves to hide from prey and predators as they lie in wait for an unsuspecting fly. Males have a colorful red throat pouch that they extend to attract females or intimidate other males. They are cold blooded so you will often see them sunning themselves on the stone paths and walls to get warm. They lay tiny eggs the size of a pea in May and the young usually emerge in June.
- 11 **Yaupon holly** known by botanists as *Ilex vomitoria* was used each spring by some Native American tribes to purge themselves of evil winter spirits. The red berries are a favorite of migratory birds heading back north in late winter or early spring. At times the berries will ferment on the tree producing an alcohol induced stupor in gluttonous birds like cedar waxwings.
- 12 The beautiful **Azaleas** throughout the gardens are floriferous members of the blueberry family, which includes rhododendrons, heathers, heaths, and cranberries. Unlike their tasty relatives, azaleas are poisonous to humans, but the deer like them just fine. Azaleas are a source of nectar for hummingbirds, butterflies, and bumblebees. Azaleas come in many different varieties from the winter blooming azaleas that bloom sporadically all winter long to the late blooming “gumpo” azaleas that bloom in May and even June.
- 13 The **Ginkgo** tree is another very primitive tree that hasn't changed much over the last 50 million years. It is a very tough tree and is often planted in cities because it tolerates pollution and exhaust from automobiles. Ginkgo trees are either male or female but usually only male trees are planted near peoples homes because the female trees produce a putrid smelling fruit that litters the ground. Jasmine Hill is home to the largest ginkgo tree in the state called the Alabama state champion tree.
- 14 **Yoshino cherries** that adorn the gardens are a specially developed variety of cherry chosen for its delicate pink flowers. It was first hybridized in Japan (hence the name of Japanese origin) and is the same variety that grows in Washington D.C. It does not form edible cherries but instead puts all of its energy into producing more flowers

each year. Yoshino cherry trees only look good and produce abundant flowers for 25-30 years so they must be replaced every so often.

- 15 The **live oak** tree has long been a symbol of southern style and grace. This tree can be recognized by its low spreading habit and evergreen leaves. Like all oaks, live oaks begin life as a small acorn. The tree grows steadily for the first 200 years of its life, stops growing and just maintains its health and vigor for the next 200 years and slowly dies over the last 200 years of its life, living a grand total of 600 years. The branch and bark structure of live oaks is suitable for epiphytes (plants that live on other plants) so you will often see live oaks covered with resurrection fern and Spanish moss. These hitchhikers do not harm the tree.
- 16 **Resurrection fern** may be found on many of the trees in the Gardens especially upon the oaks and pecans. Since water is scarce at the tops of trees and along the branches resurrection fern will conserve moisture in dry times by turning brown and curling up its leaves. It appears at this stage to be dead but instead has only gone into a state of 'suspended animation' slowing its metabolic functions greatly. Once moisture becomes available again in the form of rain, the resurrection fern quickly unfurls its fronds as it soaks up water and begins to photosynthesize.
- 17 The **bald cypress** is one of the few conifers to lose its leaves in the winter after they turn an attractive reddish orange color. People normally think of cypress trees as a swamp species, and indeed most of the natural population does grow in the water where there is little competition for nutrients by other species of trees. When in the water, cypress trees will produce "knees" that help them get oxygen to their roots. Bald cypress will grow quite well on dry land too but will not form the "knees". Cypress wood is extremely durable and resistant to rot. These characteristics made it a desirable species for loggers to harvest so that today there are very few cypress trees in the wild that are more than 100 years old.
- 18 Many colorful species of **butterflies** visit the Gardens. They are attracted to the many blossoms and plants the gardens grows each year. Adult butterflies fly from bloom to bloom in search of nectar, the sugary fluid within each flower. This gives them the energy they need to sustain life. The plants benefit from this activity too as the butterflies carry pollen from one flower to another insuring seed production. Female butterflies also seek out host plants – those plants that their caterpillars will feed on. When she locates a host plant (each butterfly has a specific type of plant that its caterpillars eat) she will lay her eggs. Out of the eggs hatch hungry little caterpillars (larval stage) that soon become large caterpillars. When they are large enough they form a chrysalis (the pupal stage of development) where they undergo metamorphosis changing into an adult butterfly.
- 19 **Crape myrtle** trees bloom during the heat of summer in June, July, and August. Their smooth bark and graceful shape make them easy to recognize. Crape myrtles come in many colors from white to pink to red to purple. They, like the camellia,

originally came from the orient but thrive in central Alabama. Their colorful flowers are a favorite of bees and butterflies alike.

- 20 **Perennials** may be found in many of the flowerbeds throughout the Gardens. Perennials are plants that die back to the ground each winter but rejuvenate themselves from the roots each spring. Examples of perennials at Jasmine Hill include Buddleia (butterfly bush) Lantana (ham and eggs) and many of the salvias (sages). Do not confuse perennials with plants that come back each year from seed.
- 21 **Annuals** are used in many areas of the gardens where a touch of color is required. Annuals live only for one growing season and must be replaced constantly. Some annuals may return each year from the seed produced the previous year. These are called reseeding annuals and include cleome, poppies, and melampodium. Other annuals like snapdragons and pansies do not come back from seed and must be replanted each year.
- 22 **Yellow jasmine** also known as Carolina jessamine is a striking native vine after which Jasmine Hill was named. Surprisingly it is not truly a jasmine at all. It blooms at an opportune time – late February when there is little else in bloom. The flowers are bright yellow and possess a pleasantly sweet smell that attracts bees. The jasmine arbor is a special place to enjoy the gardens when this native plant is in full bloom.
- 23 Jasmine Hill is located on the western rim of a **meteorite crater** that formed about 85 million years ago. This area was under 400 feet of water at the time so that when the asteroid hit (it was 1100 feet in diameter) it smashed through the water and crashed into the sea floor. The impact instantly vaporized everything within 50 miles and flung large pieces of rock as far south as Mobile, AL. Millions of years of erosion has smoothed the edges of the crater yet it is still clearly visible as you stand on the western rim and look across the crater to the eastern rim.
- 24 The **rabbits and squirrels** that live in the Gardens eat plants, nuts, and berries. Since they eat only plant material they are called herbivores. Squirrels bury nuts in the ground to eat later in the winter when food is scarce. Sometimes they forget where they buried a nut and it will sprout to become a tree like a pecan or an oak. Thus the animals help the tree to reproduce quite by accident. The rabbits and squirrels may also serve as food for larger animals (predators) like foxes and hawks.
- 25 The **reservoir** is a place where water is stored for later use. The reservoir at Jasmine Hill is replenished by rainwater from the roof of the cottage and by pumping from a distant pond. The water in the reservoir is used to irrigate (water the plants) the Gardens through a series of pipes and sprinklers. Fish live in the water in the reservoir and they help keep down the amount of algae and mosquitoes.