



FIFTH GRADE

PRE AND POST VISIT ACTIVITIES

GEORGIA STANDARDS OF EXCELLENCE

52L1. Obtain, evaluate, and communicate information to group organisms using scientific classification procedures.

a. Develop a model that illustrates how plants are sorted into groups (seed producers, non-seed producers) using data from multiple sources.

PRE-VISIT

GUIDING QUESTIONS

What makes plants similar?

How are plants different?

How are plants sorted into groups?

ACTIVITY leaf identification

- Using a dichotomous key and botanical illustrations, identify native trees in the [In"Tree"ging Plant Identification lesson plan](#).
- How does this dichotomous key sort leaves into groups?

SCHOOLYARD WALK plant group

- Discuss the different groups of plants: seed producers (flowering and non-flowering like cone bearing conifers) and non-seed producers (ferns, mosses, algae). See suggested resources for a recommended video.
- With those groups in mind, walk through the schoolyard and tally up how many seed producing and non-seed producing plants you can find. Can you find plants with blooming flowers? Can you find plants that could produce a flower, but aren't visible today, such as a grass? Can they find cone-bearing plants?
- Which kind of plant was most abundant? Why do you think you found more of those kinds of plants?
- Time permitting: gather different shaped leaves and plant samples. Return to the classroom and have the students practice sorting the plants into groups. Discuss how plants are different and fascinating!

POST-VISIT

WRAP UP QUESTIONS

What do all plants have in common?

What are some differences we observed in plants during our visit?

What were some of the different plants we saw at the Atlanta Botanical Garden?

ACTIVITY Design your own plant

- Guide students in designing their own unique plant. Ask students to think of each part of their plant. How does their plant reproduce? What plant parts does their plant have or not have? How do those plant parts help the plant survive? How does their flower attract the pollinator (sweet smells, stinky smells, beautiful colors, mimicry)?
- Afterwards, have students share their plants with the class and discuss in small groups how to sort their plant creations using current plant taxonomy.

ACTIVITY plant families

- Plant two different kinds of seeds from the Brassica family (kale, cabbage, broccoli, mustard greens) and watch them grow.
- How are the plants similar? How are they different? At what point do you start observing their differences?
- Note: This activity could also be done with images from the plants' life cycle if growing seeds isn't feasible.

SUGGESTED RESOURCES

DK Eyewitness Books: [Plant](#) by David Burnie

Video: [Plant Classification](#) | [Evolution](#) | [Biology](#) | [FuseSchool](#)



FIFTH GRADE

THEMES

- How plants are sorted into groups (seed producers & non-seed producers)

SUGGESTED DESTINATIONS

- Rose Garden
- Fuqua Conservatory Orchid Center
- Conifer Garden



GARDEN ACTIVITIES

ALL IN THE FAMILY

Location: Rose Garden

Investigate the plant labels in the Rose Garden. In the top right-hand corner of each label you will find the plant's family name. Plants in the same family have similar features and are more closely related. Find two plants that are in the same family. How are they the same? Find two plants that are not in the same family. How are they different?

ORCHID OBSERVATIONS

Location: Fuqua Conservatory Orchid Center

Many of the plants in the Fuqua Orchid Center are in the *Orchidaceae* family. Make observations about orchid leaf, stem, root (when visible) and flowers. Why do you think these flowering plants are related? How are these plants different, even within the same family? Note: Orchids are not the only plants growing in the Fuqua Orchid Center. To confirm you are looking at an orchid species, check the label and look for the family name *Orchidaceae*.

NON-SEED PRODUCERS

Location: Fuqua Conservatory

Not all plants produce seeds, such as ferns and mosses, instead they usually reproduce through spores. Look for ferns and mosses in the Fuqua Conservatory Tropical Rotunda or Orchid Center. If you find a fern by the path, look carefully for spores on the undersides of the leaves.

UNIQUE CONIFERS

Location: Conifer Garden

Conifers are special because they don't have flowers and instead reproduce through cones. The male cone releases pollen and if it lands on a female cone, the female cone will produce seeds. Visit the Conifer Garden and look for cones. Do any have seeds? What characteristics do these conifers have in common? How are they different, even though they reproduce similarly?

SCAVENGER HUNT plant groups

Location: Everywhere

During your visit, lead the students in finding 5 examples from the Garden's most visible plant groups: ferns, mosses, conifers, flowering monocots and flowering dicots.



NAME _____

Plant Groups Scavenger Hunt

Directions: While walking through the Garden, find 5 examples from different plant groups.

