

## LESSON PLAN: PLANT IDENTIFICATION PART 2- DENDROLOGY SCAVENGER HUNT

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Adapted from Penn State School of Forest Resources

(<http://ecosystems.psu.edu/youth/sftrc/lesson-plans/forestry/9-12/dendrology-scamenger-hunt>) by Mary Garvilles

### Lesson Overview:

Students work together in teams of 3 - 4 to find examples of leaves that meet the criteria determined by the instructor. This must be done outside, but can be done during a field trip or around the school grounds.

### Objectives:

- Understand how leaf arrangement and structure can be used for tree identification.
- Use observation and communication skills to identify leaf structure and arrangement.

**Time/duration:** 50 min to 2 hours

### Materials Needed:

- Field trip to forest site (could be on-campus or ideally, to a native limestone forest site)
- Scavenger Hunt hand-out (one per team, hand-out follows this lesson)
- Pruning shears (to prevent damage to trees; one set per team)
- Optional: Common Trees of Guam, the Mariana Islands or another reference material

**Background:** This lesson assumes a basic knowledge of leaf characteristics such as simple, compound, opposite, alternate, whorled, pinnate, palmate, entire, lobed, toothed and lobed, etc.

### Lesson Procedure:

1. Background review for students: Instructor may review some leaf identification concepts at the start of the lesson. Since this is a team event, it is okay to keep the review to a minimum. This allows the students to work together to recall the terminology and reinforces whether they actually retained the information in a meaningful way.
2. Set up the parameters of the scavenger hunt. Set physical boundaries and a time limit (15-30 min). Tell them they will receive a grade on this activity and that each person on the team will receive the same grade so they need to work together.
3. Hand out the scavenger hunt papers and a pair of pruning shears for each group.
4. Instructions:
  - a. Students must find as many things as possible on the list. They will need to show each specimen when they return. Students need to bring back at least three leaves whether the species has a simple or compound leaf. Instructors may choose to allow them to use the same sample for multiple answers.
  - b. Students must use shears to get a clean cut rather than tearing off a branch. Also must avoid nipping off the terminal bud on a young seedling.

- c. Keep in mind that using the same area with a large number of groups that are not careful about collecting their samples can create some problems.
5. When the students return to the designated area, ask them to lay out their samples in order.
6. Read through the scavenger hunt list and ask them as a team to show each sample. Give them one point for each correct answer.

**Evaluation:** Each group will get a grade based on their success during the scavenger hunt