

PLANT SCAVENGER HIKE

Source: Barb McKean

Basic Description:

An observation walk that can be varied to suit a group's age and skill/ knowledge level. Students search for plants with particular characteristics. A combination of words and/or drawings may be used for clues. This activity works well to reinforce identification characteristics and features and the associated vocabulary.

Materials:

- Typed up card/list of features
- Pencils (or use a bit of mud on finger tips to mark the paper!)
- Access to varied plants in a garden or natural setting.

Time Allotment: 15 minutes to an hour (varied to suit needs)

Introduction:

- The basis of the study of biodiversity is being able to tell one species apart from another and know its name - taxonomy. Identifying plants can seem overwhelming at first, but each species is defined by its own unique characteristics
- As we improve our observation skills, recognizing different plant species becomes almost as easy as recognizing different people. It isn't just a matter of looking at their hair colour, or shape of face. Plants are the same; it's not just about the flower. It's also a combination of leaf shape and arrangement, texture, size and colour, combined with where the plant is growing. We just have to learn to "see" these things.
- In order to describe different species to each other, scientists use very precise language to talk about their characteristic features. These technical terms are an important part of the study of plant taxonomy.
- We're going on a walk to look for some specific plant features, students may work alone or in pairs.

Activity:

- Find plants with each of these features. Don't pick the plants; just make a mark to show that you've found them. If you'd like to show a plant to someone, take him or her to the plant - don't take the plant to them.
- Actual lists should be customized to site or program needs, but may include things like:
 - heart-shaped leaves (cordiform or cordate leaves)
 - brown bark
 - hairy or bristly stems (hirsute or hispid)
 - red stems
 - a purple flower
 - more than 10 petals
 - many florets that make up one flower head
 - leaves that are hairier below than above
 - wiggly leaves
 - thorns
 - silvery leaves
 - compound leaves
 - parallel veins
 - three-sided stem
 - square stem
 - exploding seed pods
 - hitchhiking seeds
 - floating seeds

- opposite leaves
- lobed leaves
- scaly bark
- smooth bark
- doubly toothed leaves
- square needles
- flat needles
- winged fruit (samaras)
- bilaterally symmetrical flowers
- arrowhead shaped leaves (sagittate)

Follow-up/Discussion:

- Gather the group around and sit in one area and ask how many examples of a particular feature they can see from where they are. Do their eyes "see" plant features more easily after some practice?
- Compare lists - were certain features easier/harder to find? Would they be easier to find at a different time of year?
- You could go back along the route and ID some of the plants with field guides (use field guides for older students or have customized mini-guides with photos for younger children).

Extension:

- Activity can be modified into a Bingo-type game with the clues rearranged onto a number of different 5x5 grids, and can also be themed (e.g. seed types, leaf shapes and features etc.).
- This activity combines nicely with working in a small area to inventory plants or plant features (i.e. within a hula hoop or 1m quadrat, list the various shapes of leaves, branching patterns, textures etc. you find).
- Within a defined area, have students pick a particular plant and make a list of all the features they can think of to describe it. Write these down on cards. Have them trade cards among themselves, or draw cards from a hat so they end up with a different card. They must then find the plant with those features.
- A good consolidation activity involves having samples of each feature or drawings of each of the features on cards. If you're focusing solely on tree I.D., have twig or leaf samples for each. Lay these out on a table in the middle of an open room or space. Divide the students into two teams, line up one on each side of the room, and number off. The leader calls out a name/characteristic followed by a number (e.g. white pine, 6 or compound leaf, 6). The two students who are #6 must run up to the table and try to be the first to grab the white pine, or compound leaf sample. Work through all the examples until each set of students has had a turn.

