

VII. Background information:

- 1) Students observe fresh leafed branches of different species of trees
- 2) Questions will be answered by asking students if they have observed the specimens and looked for repeating patterns.
- 3) Students will make a list of characteristics of the different parts of the branches.
- 4) Take the list of characteristics and determine which are always present in the specimens.

VIII.

Preparation for Lessons. Branches should be freshly picked. Slides of stems and leaves cross-section showing symmetry should be pre-made. Several microscopes will be set up at the back of the room. Stations for various species of trees will be set up around the classroom.

Assessment:

- a) Each student will complete a drawing of their sample labeled with the terms the group came up with, this drawing will be kept in students journal.
- b) A three by five card stating the objectives for the lesson are for students to learn that trees are made up of stems and leaves will be read by a student at the end of the lesson to determine if the objectives have been met.

Extensions: Using the concept of trees being made up of stems and leaves, students will then look for other patterns that would help students group trees for identification/classification.

Students will:

- a) Using buds, develop a rule to distinguish between simple and compound leaves.
- b) Identify patterns of leaf and branch arrangement.
- c) Construct a dichotomous key to identify local trees.

Suggestions: Be prepared for students to find numerous galls, insets and spiders. Make identification keys available and allow time for this on the first day. On the second day the traits students have recorded can be listed on the blackboard and discussed with the class.