## Appendix A:

Using the numbers in front of each of these dendrology terms or characteristics, or families, look at the specimens at each station and write the number of the characteristic in the appropriate space. The number of spaces indicates how many answers you must have at each station

Sample \# 1. What do these specimens all have in common?

1. simple Names of group members:
2. compound $\qquad$
3. alternate
4. opposite
5. deciduous
6. coniferous
7. maples
8. oaks
9. pines

Sample \#2 What do these have in common?

1. simple
2. compound
3. alternate
4. opposite
5. deciduous
6. coniferous
7. maples
8. oaks
9. pines

Names of group members:
$\qquad$

Sample \#3 What do these have in common?

1. simple

Names of group members:
2. compound
3. alternate
4. opposite
5. deciduous
6. coniferous
7. maples
8. oaks
9. pines

Sample \#4 What do these have in common?

1. simple
2. compound
3. alternate
4. opposite
5. deciduous
6. coniferous
7. maples
8. oaks
9. pines

Names of group members:
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Sample \#5 What do these have in common?

1. simple

Names of group members:
2. compound
3. alternate
4. opposite
5. deciduous
6. coniferous
7. maples
8. oaks
9. pines

Sample \#6 What do these have in common?

1. simple
2. compound

Names of group members:
3. alternate
4. opposite
5. deciduous
6. coniferous
7. maples
8. oaks
9. pines

Appendix 1 - teacher's guide and answers
Teachers - you can modify this as you wish. The attempt is to get students to be able to look for those characteristics which are held commonly by each group of samples shown them. This is in effect also helping to determine which characteristics are shared by some but not all of the individual samples within the group. This tends to take their thinking to a higher order than simply identifying the species. Below you will find several of countless examples that can be used.

I find it extremely helpful to have them do this as a group the first time allowing them to talk through their decisions. I then go around to each table of samples and work through them. If there are mistakes made (and there normally are the first time this is introduced) we try to determine what went wrong in the thought process. Was it a misconception, lack of understanding of a term or concept or just a careless error?

I typically do an activity similar to this 2 or 3 times within the unit. I change up the configuration of the groupings of the samples and thus the number of correct responses. Some times I actually have my students select the groupings and number of responses to quiz one of the other sections of the same class. They seem to enjoy this and I believe it helps further reinforce the concepts.

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Sample \#1
red maple, silver maple, sugar maple, Norway maple ( \(1,4,5,7\) )
Sample \#2
any of the pines, a spruce, a hemlock, a fir, even a larch (6)
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Sample \#3
a variety of maples and a dogwood and an ash $(4,5)$
Sample \#4
red oak, black oak, scarlet oak, pin oak, chestnut oak $(1,3,5,8)$
Sample \#5
Virginia pine, pitch pine, red pine, white pine $(6,9)$
Sample \#6
any examples of the hickory family, black walnut, black locust, black or white ash $(2,5)$

