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TREE IDENTIFICATION

Dendrology

• 'Dendro-' from the Greek word meaning tree

• '-ology' meaning the study of

• Dendrology is the study of trees and includes taxonomy, identification, silviculture characteristics, ranges, morphology and ecology.

Forested

The definition of forested (land that is forested or has trees growing on it): to be classified as forested (forestland) the area must be at least one acre and contain at least 10% tree cover.

Vocabulary

• **Taxonomy** is the study of the classification of living things.

• **Morphology** is the study of the shape, general appearance, or form of an organism.

• **Silviculture** is the care and cultivation of forest trees.

• **Ecology** is the study of the relationships between living and non-living things and their environment.

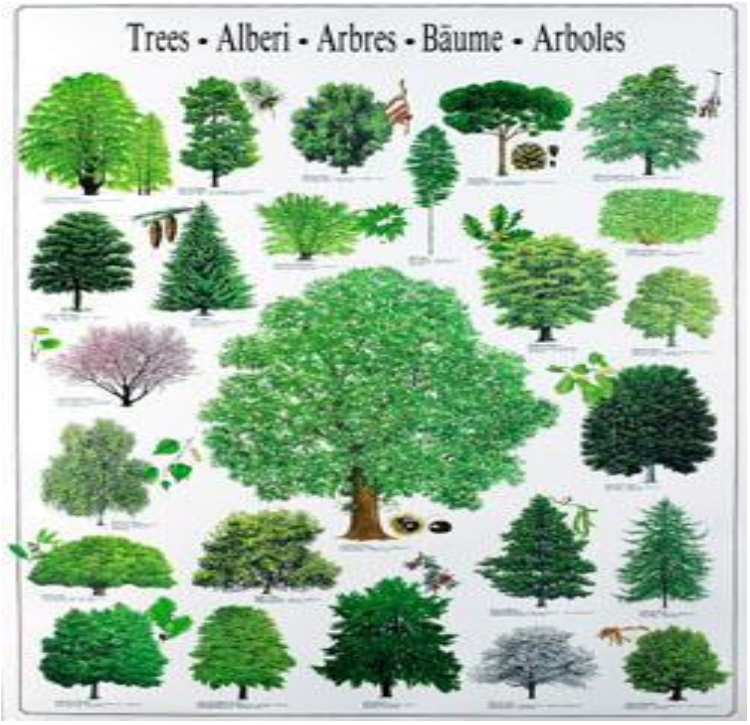
What makes a tree a tree?

• Heights at least 4.5 meters (about 15 feet).

• Single dominant woody stem (trunk or bole).

• Capable of diameter growth.

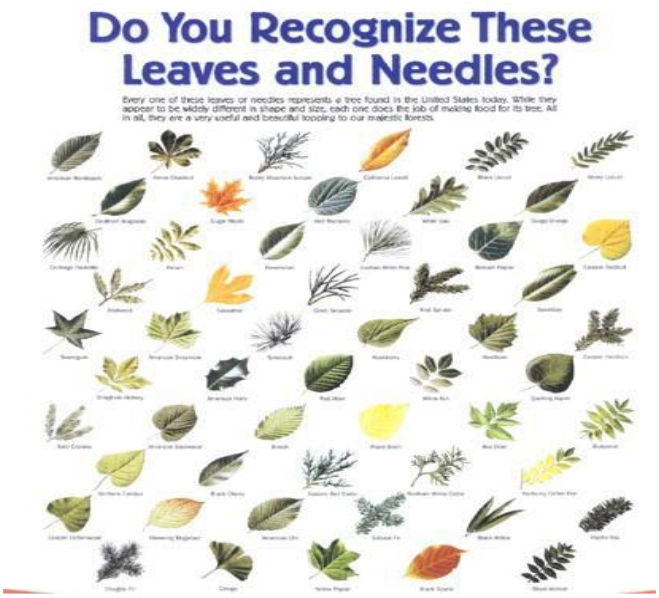
• Perennial plant (present at all seasons of the year)



What makes a shrub a shrub?

- Heights under 4.5 meters (less than 15 feet).
- Multi-stem.
- Capable of diameter growth.
- Perennial plant.

Tree Identification; By observing leaves



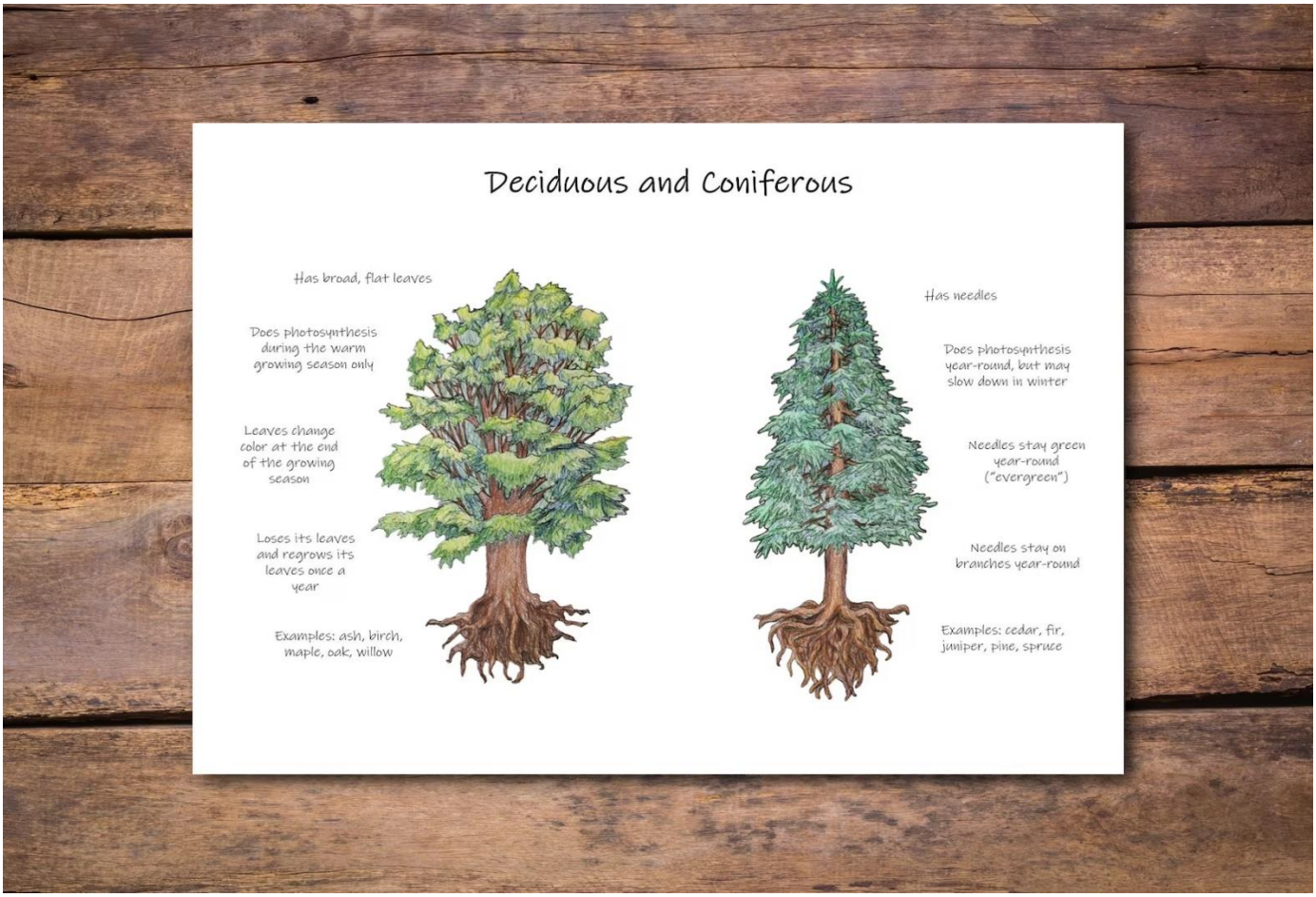
Conifers vs. Deciduous

Characteristics of Conifers

- Needle shaped leaves
- Seeds that develop inside cones
- Evergreen – green year round
- Gymnosperm, conifer, softwood
- Examples: pine, spruce, hemlock, fir

Needle like 

Scale like 



Deciduous Tree Characteristics

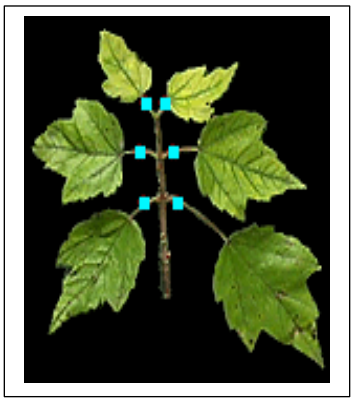
- Broad flat leaves
- Lose all leaves each year in the fall
- Angiosperm (flowering plants), broadleaf, hardwood
- Examples: oak, maple, beech, aspen, ash

Leaf characteristics-deciduous

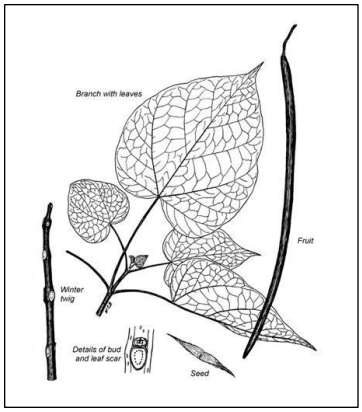
- Leaf arrangement: whorl, alternate, opposite
- Leaf type: simple or compound
- Leaf edge: entire (smooth), lobed (projection), toothed (serrated)
- Leaf texture: hairy, waxy, rough, smooth, thick, thin, etc.
- Leaf shape: various.

Leaf Arrangement

alternate



opposite



whorl

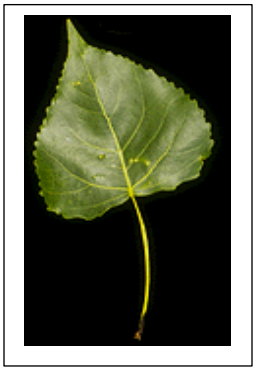
Leaf Type

Simple

- Only one leaf blade
- Joined by its stalk to the woody stem
- Examples: maple, oak, aspen, beech

Compound

- Made up of several leaflets
- Leaflets are joined to a midrib that is not woody
- Examples: ash, walnut, sumac



More characteristics to ID trees

- Bark
- Twigs
- Flowers
- Fruits/Seeds
- Cones
- Overall shape

Bark

- Color
- Texture
- Furrows
- Age
- Thorns







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Twig clues

- Leaf scars aka buds are the places where the leaves used to be attached
- Size color and shape of buds also useful to ID trees







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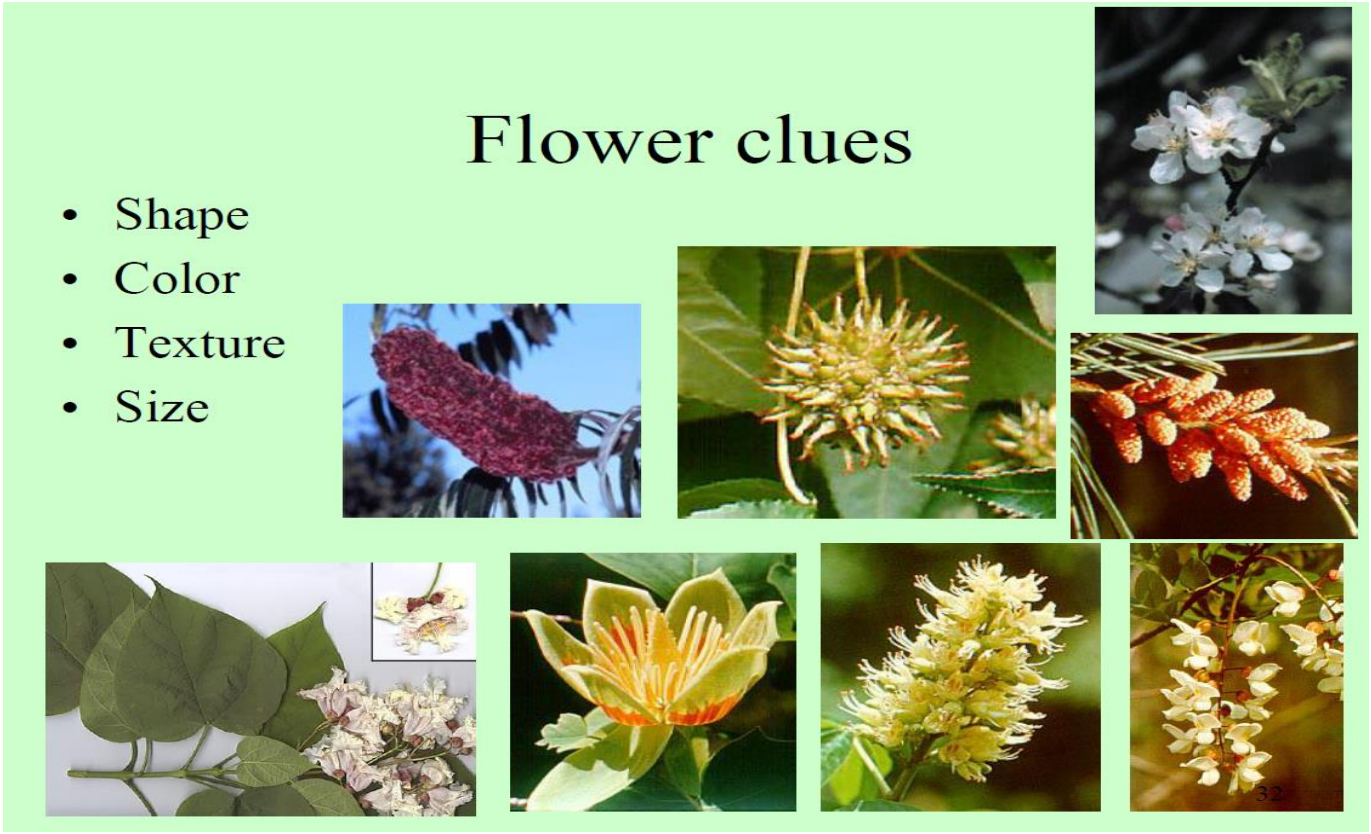
Flower clues
• Shape
• Color
• Texture
• Size


Fruits & Seeds
Common Ash Tree Leaf
Sugar Maple Leaf
European Olive Tree
Common Oak Leaf

Cones






Common NAMES Scientific

- Used in day to day conversation
- Usually based on a characteristic or region of origin
- Sometimes named after the person who studied the species
- Often confusing

- Each species is uniquely identified
- Made up of two parts, the genus and species
- Groups similar individuals
- More accurate

Scientific names

- Two part name binomial nomenclature
- Made up of the genus and the species
- Written in italics
- Example:
  Pinus strobus

Leaf Observations

Deciduous	Conifer
Leaf arrangement: Alternate, opposite, whorl	Needles or scales
Leaf type: Simple, compound	Needle attachment: Single, clusters
Leaf edge: Entire, lobed, toothed	