

## Tree Identification

### Lecture and Activities:

Trees can be divided into two main groups: **Conifers** (gymnosperms) and **Deciduous** (angiosperms)

**Conifers** have leaves that are green needles. Most keep their green needles all year long, except tamaracks/larch. Conifers have cones, female seed cones, male cones have pollen. At certain times each year, pollen is released and sent by the wind to find the seeds. The seed cones are pollinated producing fertile seeds. When the cones are dropped or harvested by animals, seeds dropped into the soil produce new conifers.

The conifers you might find on your nature trail are: white pine, red pine, balsam fir, spruce, hemlock and tamarack. (There are many more, this is a small sampling...)

**Deciduous** trees have green leaves. They lose their leaves every autumn and grow them back each spring. Deciduous trees have flowers that are also pollinated by the wind or insects and produce seeds inside a fruit. The fruits fall or is eaten and distributed by an animal. Deciduous tree flowers can look like standard flowers or they can be very different like a catkin as on most forest trees.

Deciduous trees make a variety of fruits (with the seeds inside) i.e. apple trees-apples, maple trees-samaras, oak trees - acorns, birch trees make cone-like fruit called *strobile*, cottonwood trees make seeds on fuzzy parachutes.

### Activity: Make a tree identification chart.

1. Collect samples from the different trees. If you can collect a flower, seed or fruit (cone in conifer) that is even better. Keep each sample separate.

If you want to include the students in the collection process, that is beneficial to them. It helps to see the whole tree and what it looks like. Because this is a small sampling of trees for this activity, collect or locate these trees ahead of time to make the activity successful.

If you collect the samples for them, afterward it helps to have them try and identify these trees in their neighborhood or schoolyard.

For all conifers, use the **Conifer Key**.

For deciduous trees, use the **Deciduous Tree Guide**.

## Deciduous Tree Guide (9 common trees):

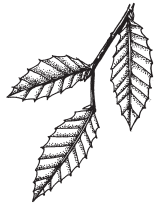
### Tree

### Leaves

### Flower

### Fruit

Beech



Birch



Sugar Maple



Red Maple



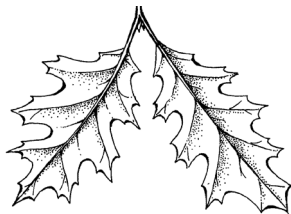
Ash



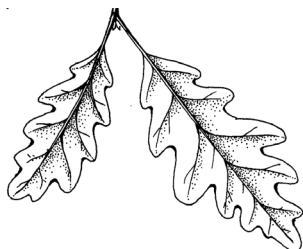
Hickory



Red Oak



White Oak



# Conifer Key

1. If your tree sample has **long needles** (3-5 inches long) go to 1A.



1A. If your tree sample has **5 needles** in a bunch (with long 4-8" cones) your tree is a **WHITE PINE**

If not go to 1B.



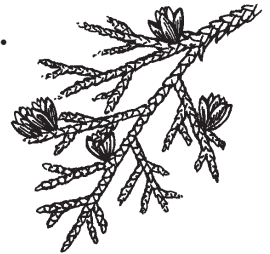
1B. If your tree sample has **2 needles** in a bunch ( with round 3" cones) your tree is a **RED PINE**.

2. If your tree sample has **short needles** (1" or less) go to 2A.

2A. Squeeze the branch with your hand, if it has **sharp prickly needles** go to 7.

2B. Squeeze the branch with your hand, if it has **softer needles** to your touch go to 4

3. If your tree has branched, scaley, flat leaves (with tiny cones) it is a **WHITE CEDAR**.



4. If your tree sample has its **needles growing in whirled clusters on small woody stems** it is a **TAMARACK**

If not go to 5.



5. If your tree sample has **1 inch flat needles growing flat on either side of the twig** (big cones on top of twigs) your tree is a **BALSAM FIR**. If not go to 6.



6. If your tree sample has **1/2" flat needles growing around the twig** (small 1/2" cones hanging down) your tree is a **HEMLOCK**.



7. If your tree sample has **sharp (ouch), rounded needles all around the stem** your tree is a **SPRUCE**.

