



Forest Fables Card Game


Teacher's Guide

Objective: To understand the importance of biodiversity in a forest and how the loss of this diversity adds to the effects of climate change.

Time: 30 minutes

ACTIVITY

1. Explain that biodiversity is the variation of life forms. Ask students to comment on why biodiversity is essential in a forest. Remind students that we need to protect the biodiversity on the planet because, “in losing that vast reservoir of diversity, we are allowing an utterly irreplaceable asset base to be removed. And it cannot be brought back.” Also, if we favour one species over biodiversity, it can impact climate change further. For example, if a forest is planted only with pine trees, what happens to that forest if the Mountain Pine Beetle attacks the trees and destroys that forest?
2. Arrange the students into six groups.
3. Explain that groups will play a card game called Forest Fables. The object of the game is to preserve the trees in your forest and to have at least six different species of trees in your forest. The winner will be the one with the most diversity in their forest (the one with the most variety of TREE cards at the end of the game).
4. Explain the rules of play. You might want to make a copy of these rules to distribute to each group.

- a) The game consists of two decks of cards: **tree cards** and **situation cards**. Place both decks face down and side-by-side, in the middle of the group.
 - b) To begin, one player randomly hands out four tree cards to each player.
 - c) The student whose birthday is closest to the current day begins. Taking turns, players pick up one situation card, read aloud, and follow the directions. The situation cards will either ask players to pick up or discard tree cards. If the player does not have tree cards to discard when asked, the next player will take a turn.
 - d) If the situation card has a group icon, this situation affects all players. All players must do what is asked on the card. 
 - e) Record details of each situation card to use for later discussion.
5. At the end of 15 minutes, ask players to count how many different species of tree cards they have. The winner in each group is the player with the most diverse forest the greatest number of species of tree cards.
 6. As a class, discuss the situation cards, which are based on true events that are occurring today. Topics you can further explore are forest fires, both natural (serving vital ecosystem

functions) and man-made (clearing land for farming); climatic changes in the world caused by cutting down the rainforest, and how children are affected by the climatic changes when forests are cut down.

Keep the Discussion Going

Discuss biodiversity. Why is it important to have a variety of different species of trees, plants and animals in a forest? How does this affect climate change and children?

Some argue that the rainforest preservation movement is in the way of “progress.” Explain this statement in reference to climate change.

What do you know about the pine beetle? On the internet, search “pine beetle temperature” for details on how temperature affects the pine beetle.

What can you, your school, your community, do to save our rainforests, and therefore help reduce the effects of climate change on children?

We can support organizations that are protecting our rainforests and we can ensure the wood products we purchase are FSC certified.



Situation Card

a)



Tree Card

Here are some good sites on trees:

Environmental Literacy Council

<http://www.enviroliteracy.org/article.php/46.html>

Natural Resources Canada

<http://cfs.nrcan.gc.ca/forestresearch/subjects/biodiversity>

World Wildlife Fund

<http://www.worldwildlife.org/what/wherewework/amazon/index.html>.

A Brazilian farmer was offered good money, so he cleared his land to manage a cattle ranch.



Discard 2 trees

The Forest Stewardship Council (FSC), an independent, non-profit NGO, ensures wood products with its stamp come from a sustainable forest.



Collect 2 trees

The forest was devastated by a hurricane, probably due to climate change.



Discard 3 trees

A new medicine to fight childhood leukemia was found from a bark of one of the trees. Those trees are saved.



Collect 3 trees

The diversity of the forest is threatened as rainfall decreases. Researchers feel that this lack of precipitation is caused in part by climate change.



Discard 2 trees

UNICEF Zambia's Child Ambassadors led a group of schoolchildren in planting hundreds of trees at Children's Hospital in Zambia.



Collect 4 trees

People are adopting a plant-based diet so fewer forests are cleared to manage livestock.



Collect 2 trees

A local aboriginal territory is being reforested. Trees are being protected.



Collect 2 trees

A local timber company continuously studies the forest microsystem to ensure the soil can support new seedlings.



Collect 2 trees

The increase in hot, dry weather is likely due to climate change and results in increased forest fires.

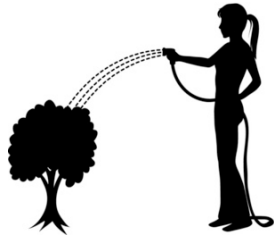


Discard 2 trees



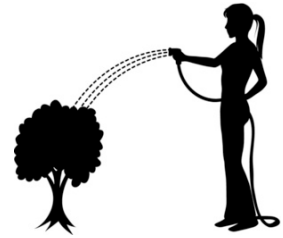
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Forest Fables



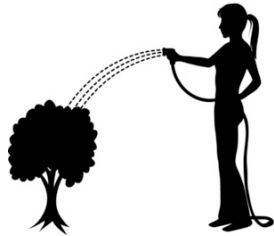
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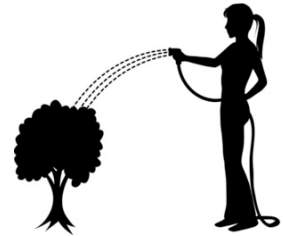
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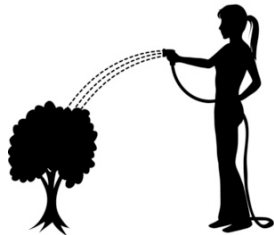
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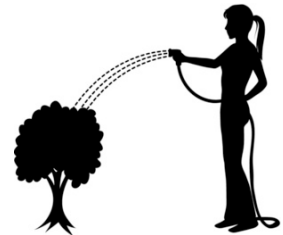
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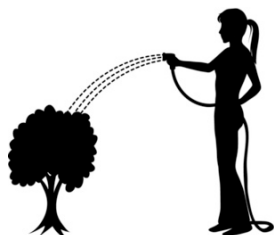
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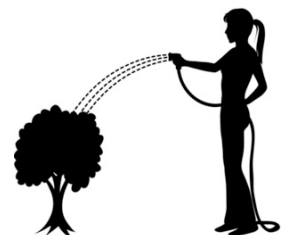
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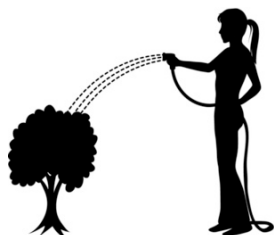
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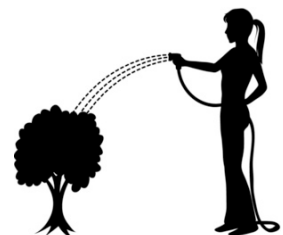
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Forest Fables



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Forest Fables



As we burn fossil fuels (releases CO₂) and clear trees (stores CO₂), the balance of the carbon cycle is tipped. Because of their developing respiratory systems, children are most at risk.



Discard 2 trees

A youth from the Kichwa Nation from the Amazon region joins the fight to save the rainforest; the Amazon rainforest is referred to as the lungs of our planet.



Collect 2 trees

Over 2,000 tropical forest plants have been identified with some anti-cancer elements, but many plants are becoming extinct before being researched.



Discard 2 trees

By holding soil in place and reducing run-off from streams, trees prevent soil erosion, control avalanches and mitigate desertification.



Collect 2 trees

Deforestation is contributing to flash-flooding and the destruction of homes and crops directly affecting the lives of children.



Discard 1 tree

Tropical hardwood floors are an inexpensive way to renovate but the environmental impact is the loss of trees from the rainforest.



Discard 3 trees

In developing countries wood is used to cook food and heat the home, resulting in poor air quality, which can mean death in infants and young children.



Discard 2 trees

In Sumatra, forests are being converted to palm oil; the forest is burnt, the habitat is destroyed, and the ground is drained.



Discard 2 trees

At the turn of the 20th century, 40% of Ethiopia was covered by forest. Today it's just 3%.



Discard 3 trees

Deforestation is jeopardizing livelihoods and taking its toll on children, especially underdeveloped regions.

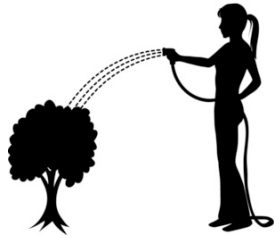


Discard 2 trees



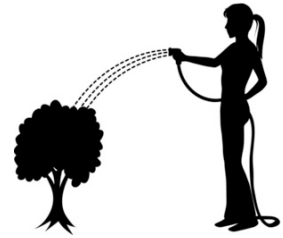
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Forest Fables



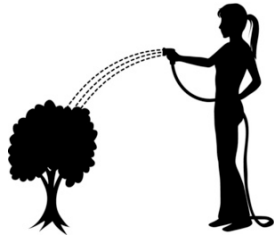
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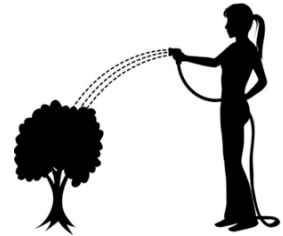
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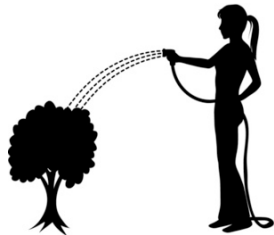
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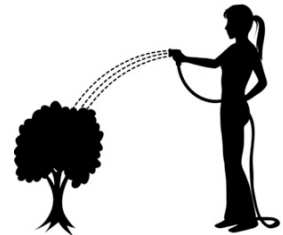
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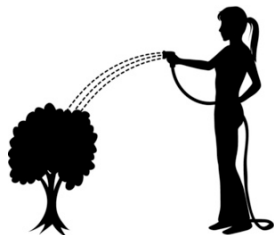
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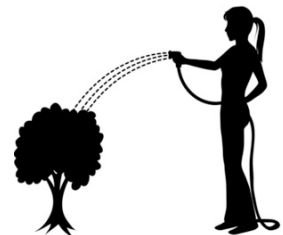
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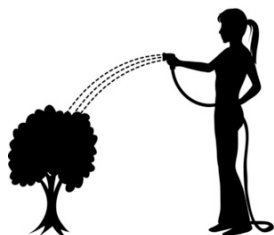
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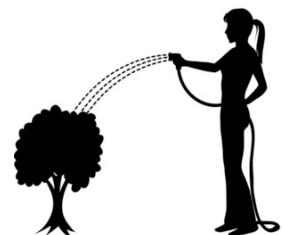
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Forest Fables



unicef

Forest Fables



In 2007, Ethiopia pledged to plant 60 million trees, with the help of children and youth.



Collect 2 trees

UNICEF is contributing to the planting of at least 20 million trees in Ethiopia.



Collect 2 trees

The emerald Ash Borer, an invasive species, has devastated the ash trees in the area.



Discard all ash trees

Due to climate change, the pine beetle has devastated the pine trees in the area.



Discard all pine trees

Some farmers are forced off their land to make way for a soya plantation. The land is cleared.



Discard 2 trees

Dutch elm disease has devastated the local elm trees.



Discard all elm trees

Forest is being cleared to raise cattle for export.



Discard 2 trees

Illegal loggers are clear-cutting vast expanses of forest.



Discard 2 trees

A local timber company continuously studies the forest microsystem to ensure the soil can support new seedlings.



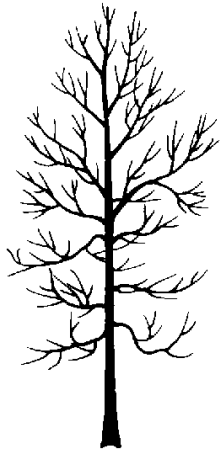
Collect 2 trees

By holding soil in place and reducing run-off from streams, trees prevent soil erosion, control avalanches and mitigate desertification.

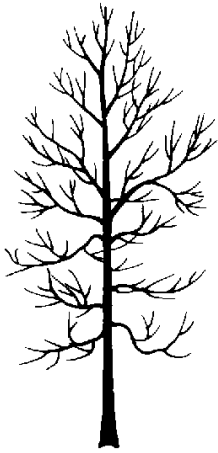


Collect 2 trees

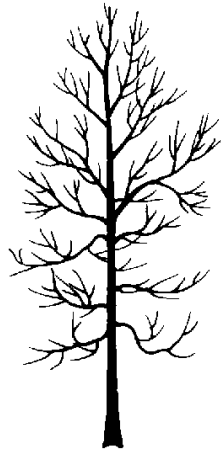




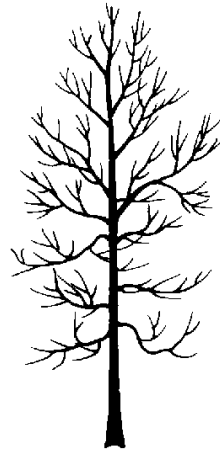
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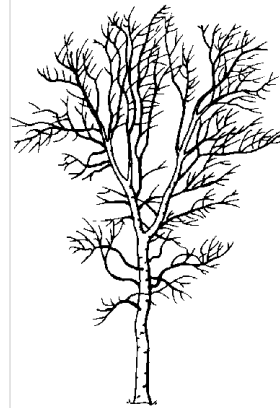
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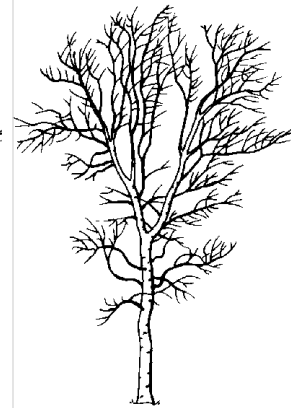
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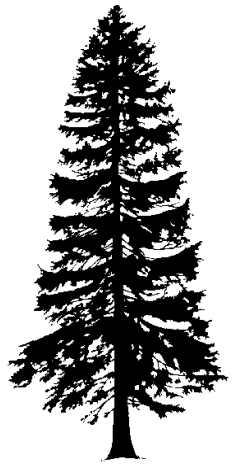
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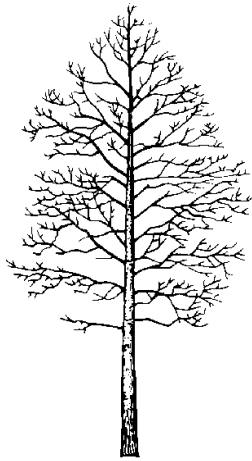
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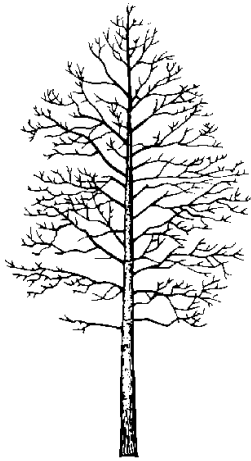
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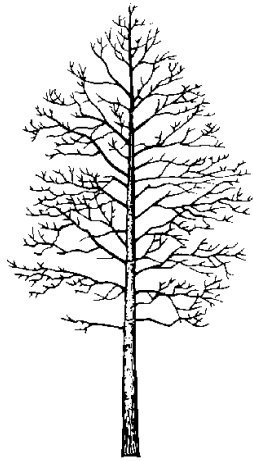
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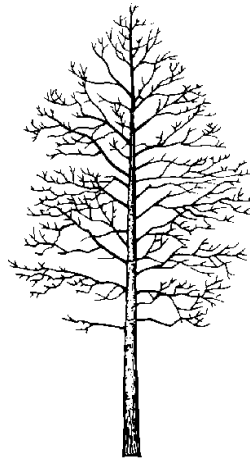
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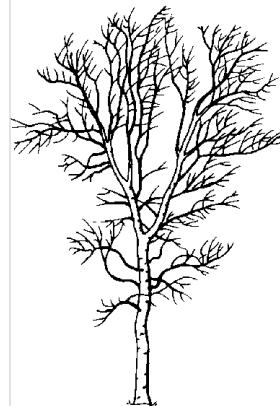
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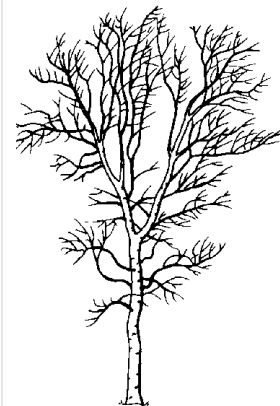
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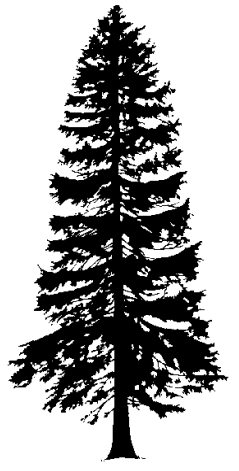
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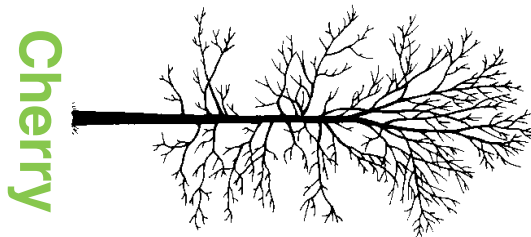
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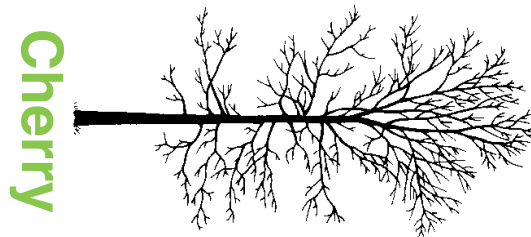
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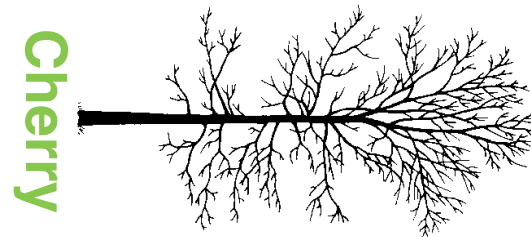
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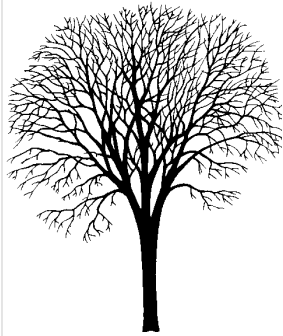
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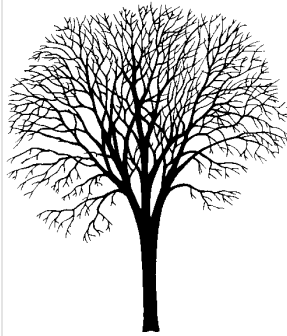
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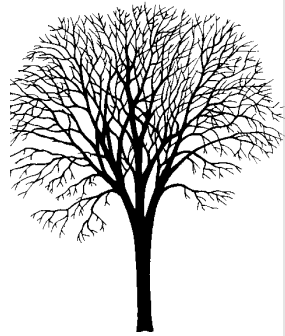
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Elm



Elm



Elm



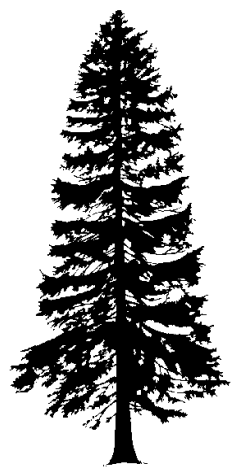
Fir



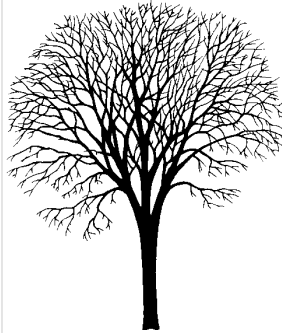
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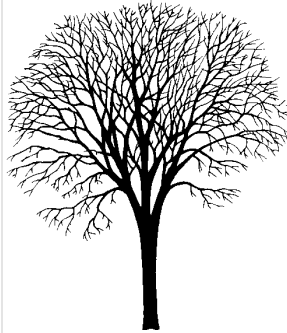
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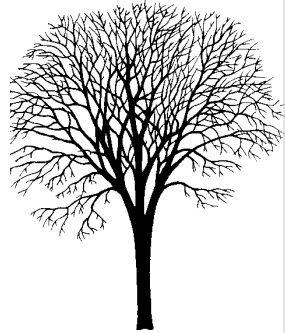
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Elm



Elm



Elm



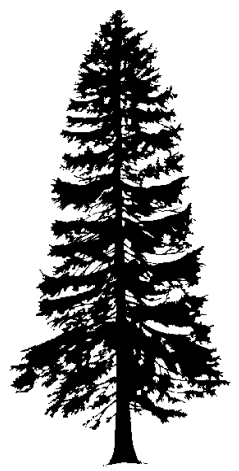
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Fir

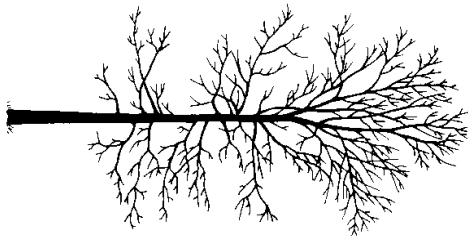


Fir



Cedar

Cherry

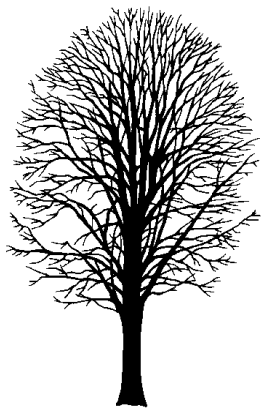


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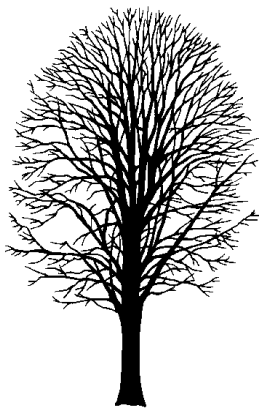


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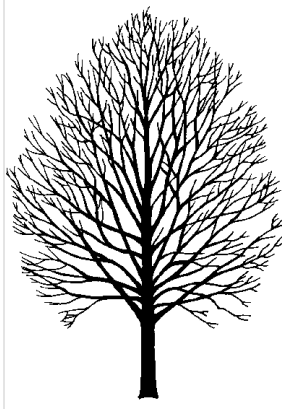




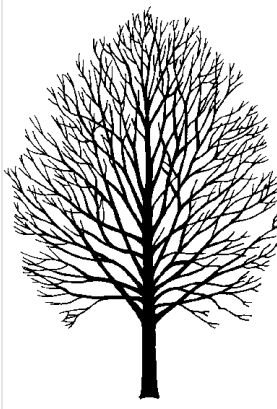
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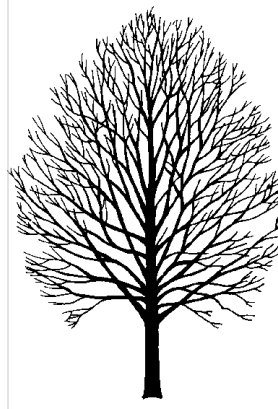
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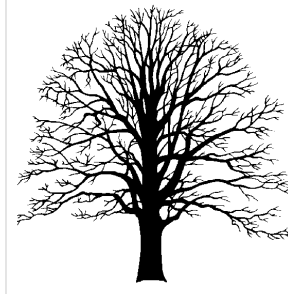
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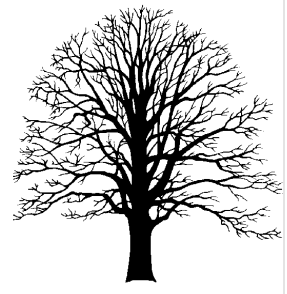
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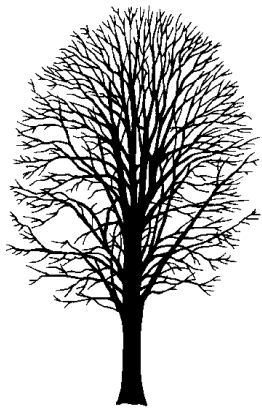
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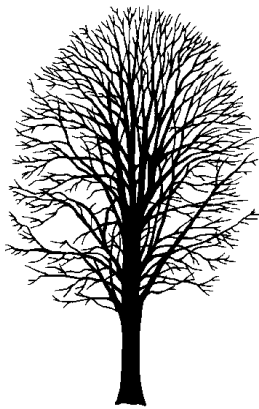
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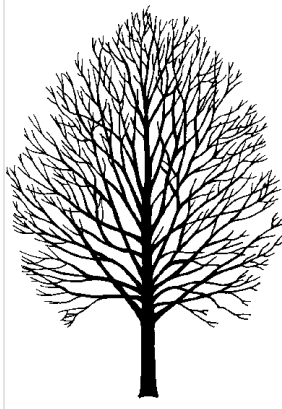
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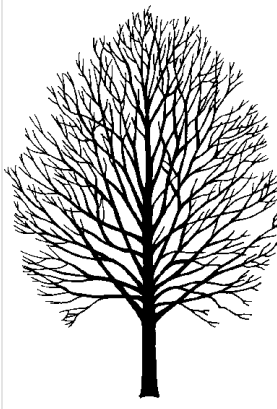
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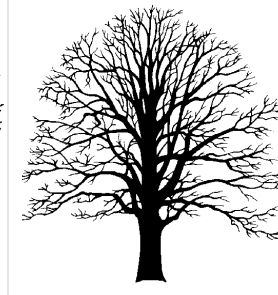
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Maple



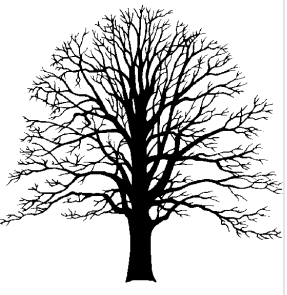
Maple



Oak



Oak



Oak

Larch



Larch



Larch





Pine



Pine



Pine



Pine



Spruce



Spruce



Spruce



Pine



Pine



Pine



Pine



Spruce

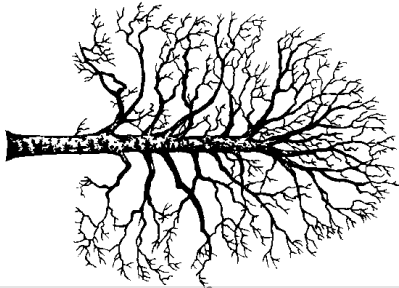


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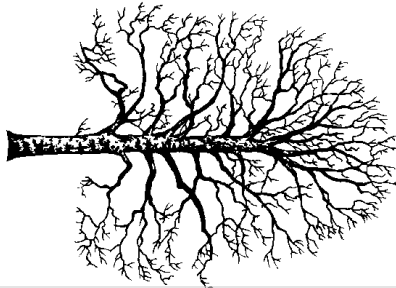


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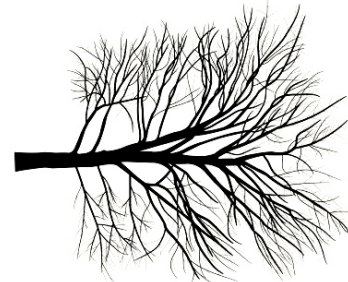
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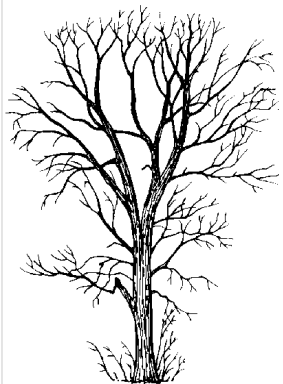


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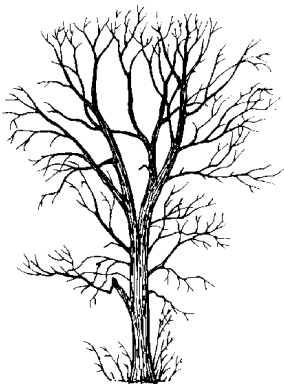


Willow





Poplar



Poplar



Tamarack



Tamarack



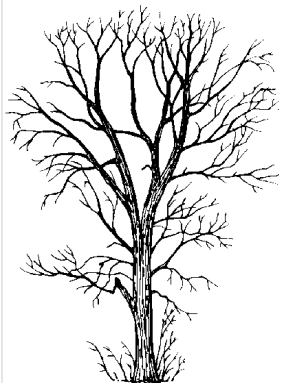
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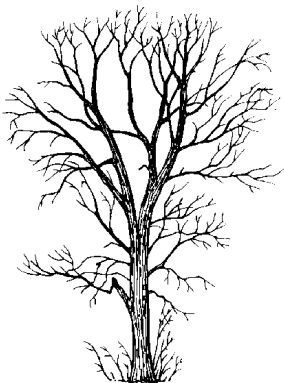
Spruce



Cedar



Poplar



Poplar



Tamarack



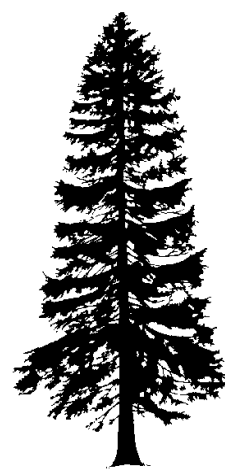
Tamarack



Cedar



Spruce



Cedar

Pine



Pine



Willow

