

United States



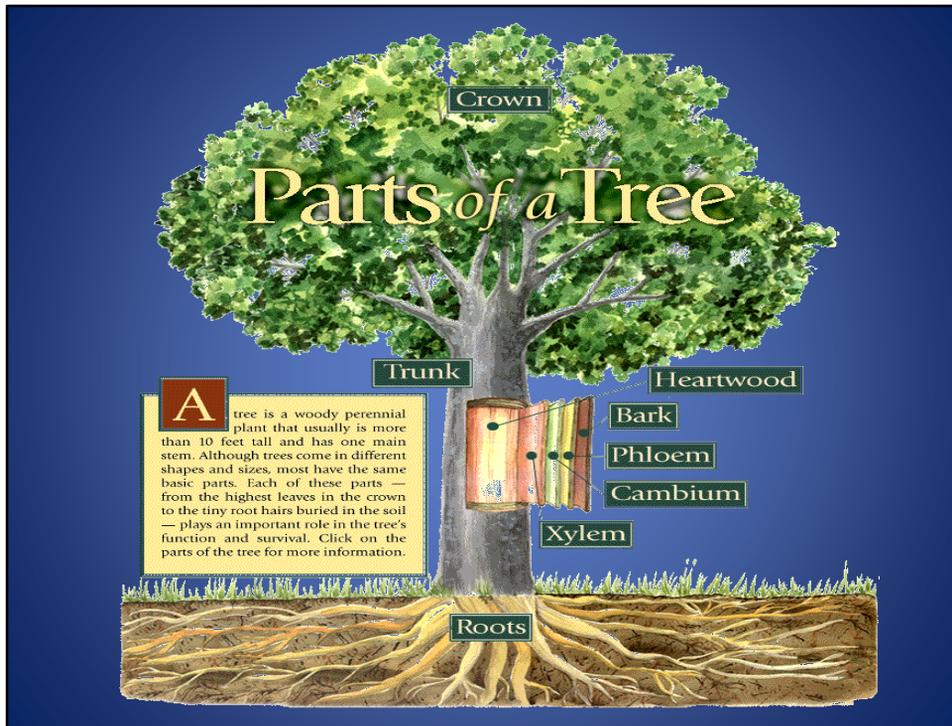
Started in 1872 by a man named Julius Sterling Morton was from Nebraska, which is in the Great Plains region of the United States. He moved to New York from Nebraska and missed having all the trees that he was used to seeing in New York, so he decided to plant trees and encourage other people to. By 1920 Arbor Day was being celebrated all over United States and now in Massachusetts we celebrate Arbor Day the last Friday in April.

Related words to Arbor - comes from the Latin language.

Arboriculture - study and learning of how trees grow

Arboretum - place where many different trees/shrubs are grown for learning and cultivating new varieties. One that is close by - Arnold Arboretum in Jamaica Plains.

Arborist - person who takes care and plants trees What do you think an Arborist needs to know about a tree and how it grows?



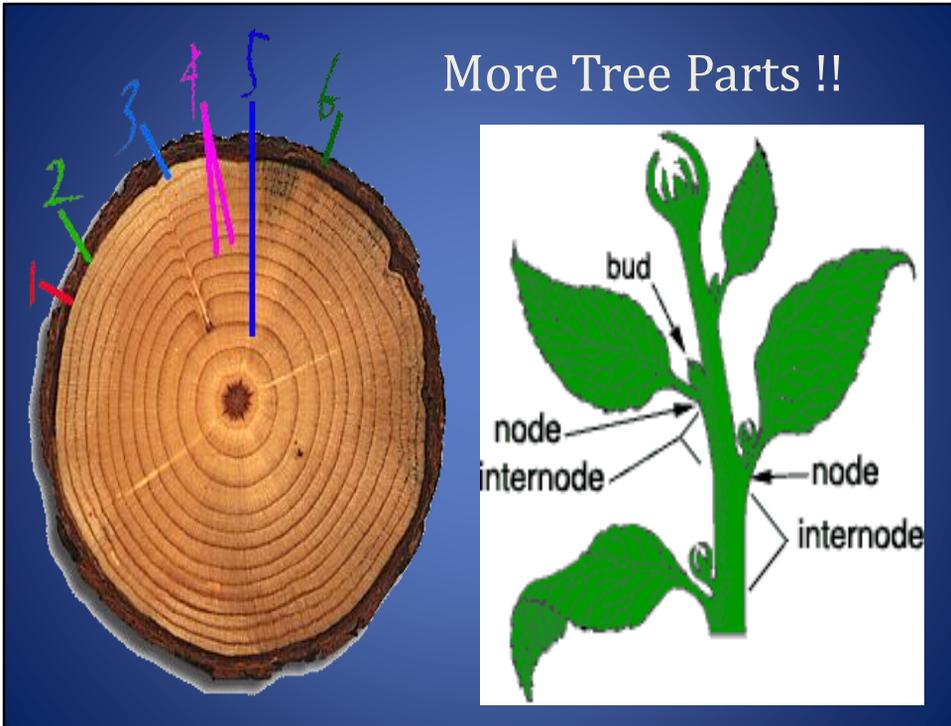
How tree parts function

Roots - anchors the tree and searches out water and nutrients-fertilizer Growth Habit? Grow out sideways within the first 18 inches of soil. Reason? Roots need air/oxygen to grow well, so when you plant a tree you never want to plant it too deep.

Trunk/Branches/Stems (Crown of tree) - transport water/nutrients up and down, circulation system

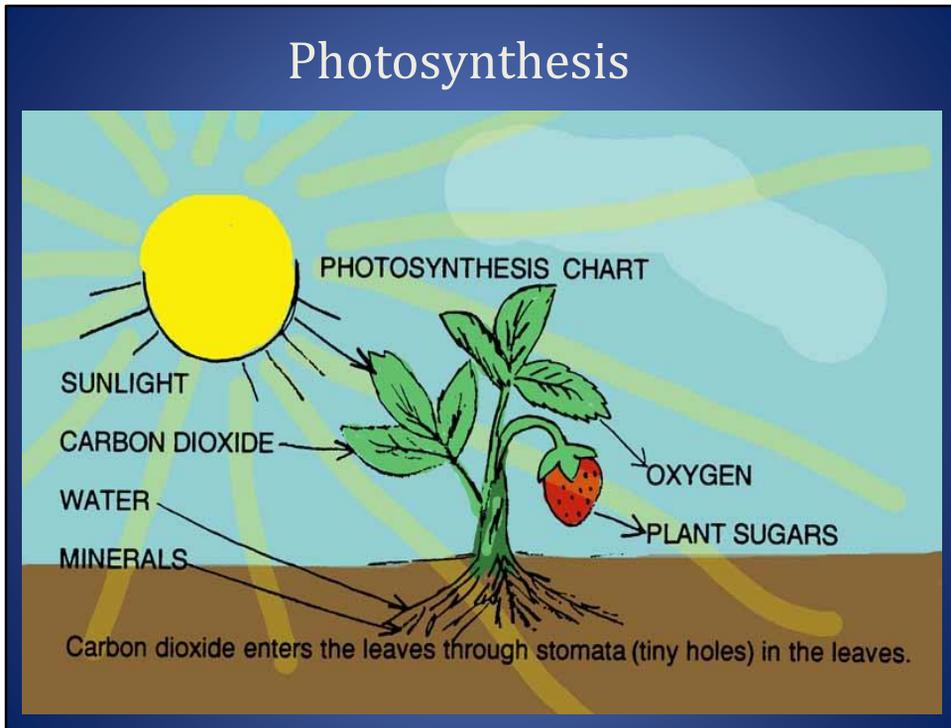
Sapwood - Xylem carries water up **Phloem** food (sugar) to tree parts

More Tree Parts !!



Heartwood- center rings, dead tissue but provides needed support/ each year forms a new one-tells age of the tree.**Bark** - protection from diseases, insects, damage. We need to be careful not to damage or cut into bark. For a young tree placing some fencing around the tree is important so that animals do not eat it or landscapers do not accidentally mow too close to it.**Stem internodes** - can tell if it was drought conditions, from one leaf section to another**Buds** - leaf and flower formed for next year's growth **Flowers** – provides for fruit and seeds

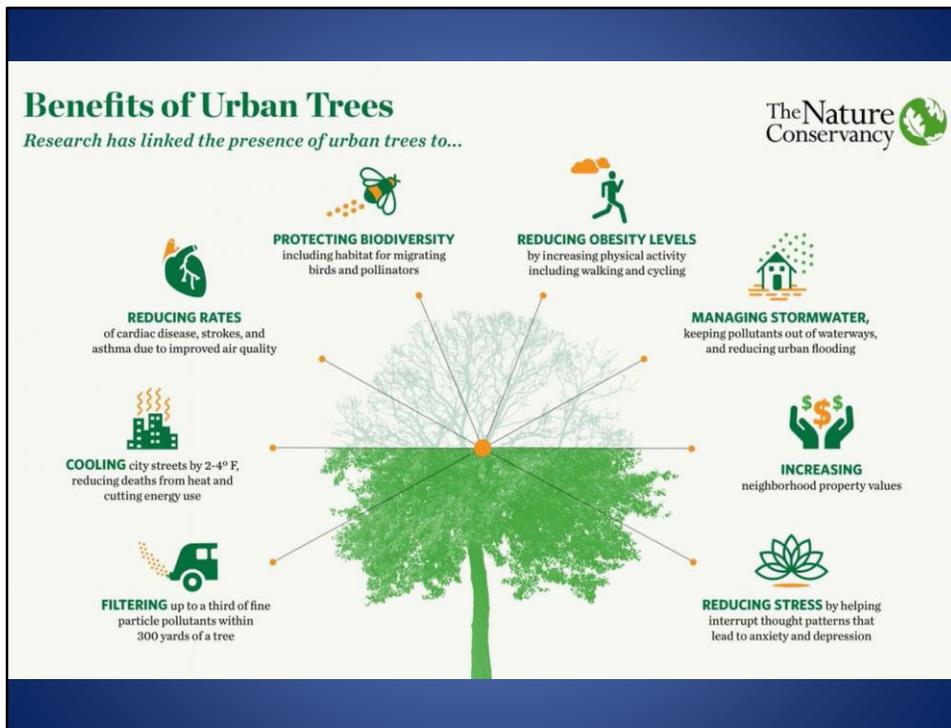
Photosynthesis



Main Big Benefit for Us

Leaves - What do trees need to grow?

Nutrients in soil, sun, water, CO₂ The chemical process of **photosynthesis** that the tree does provides food for tree and O₂ for us to breathe! The **chlorophyll** in the leaves with water, CO₂ and sunlight makes a chemical reaction in the leaves to provide energy in form of sugar for the trees nutrients. We have a special relationship with plants and trees – as we breathe out CO₂ the tree leaves take this in through the leaves (small holes called **stroma**) and use it for food mixed with the water and sunlight absorption. In addition, the tree leaves expel out oxygen in this chemical process of photosynthesis that we need to breathe!



Other Benefits they provide for us, important for our cities and parks to have them
-Evapo-transpiration Out of the leaves tiny pores (**stoma**) they also release out water into the air, helps keeps our air moist, just like we have pores on our skin. Example - walk in forest you will feel cooler.

Pollution/Air - Good for city leaves help clean our air we breathe every day attracting and filtering pollutants and dusts, then when it rains washed off leaves to ground.

Conserve Energy - Summer- gives shade to cool down houses/ buildings/ pavement Winter- blocks wind to keep houses warmer; do not need to use as much heat

Noise - reduce traffic noise in city and from factories.

Soil Erosion - Rain/ Wind tree roots spread out horizontally to prevent soil moving and holds the soil in place so it does not slide down a hillside, also helps control flooding. Rain erosion excess sediments in lakes and ponds can ruin fish habitats.

Renewable Resource - gives us wood products (furniture, firewood, rubber) we can use and be able to grow trees again to get more to build with

Provides Jobs - carpenter, state forester, arborists, orchard grower, nursery person, logger

Food for us and animals - fruit and nuts, maple syrup

Provide habitat and shelter for wildlife - old dead wood, holes in trunks/ nest in trees for birds/ along lakes, rivers tree shade provides habitat for nesting and spawning fish.

Play and relaxation - climbing up trees/ swing or reading a book under a tree gives relaxing shade

Compost to enrich our soil from old leaves

Beauty- show pictures, flowers, fall color, landscaping

Deciduous Trees



Types of Trees - Many Different Sizes and Shapes

Deciduous- lose leaves in the fall, changing fall color, flowers, produce fruit, nuts, and new leaves in spring

Why do you think trees loose their leaves?

Colder weather, shorter days - less sunlight to produce food so they go dormant-sleep for winter. Chlorophyll (green) leaves the leaves show reds, orange, yellow browns. Cold nights and sunny days to trap sugars in leaves and produce fall colors.

Nature's way of keeping trees healthy – have new healthy leaves every year to make more photosynthesis

Types of Trees – Evergreen/Conifer



Evergreen/ Conifers - keep needles (leaves), thin waxy needles on all winter and have cones. Loose leaves/needles not as often and from the inside older needles.



Naming of trees – Have 2 main names

Latin or scientific name The Latin name the first name written below is used all over the world, so an arborist can call someone in another country and talk about a particular tree. Better for identification. A. *Quercus palustris*- Pin Oak. B. *Acer saccharum*- Sugar Maple

Common name – (second name written above) - of a tree might be more than one or a knick-name given to that tree depending on region, not everybody knows it. Sugar Maple also called Rock/Hard Maple.

What you can do to Keep Trees Healthy- Plant right tree in right spot for conditions of soil, sun, temperature. Plant tree correctly not too low and water for the first year. Stressed trees attract bugs and diseases easier- just like when people are stressed or do not feel well easier to get more sick. Be careful of site –poor soil, compaction, lack of water. No carving or writing on trees or playing on tree when too young.

2020 Arbor Day

Wellesley Rotary Arbor Day Program



Arbor Day is a special occasion to take notice of the trees around us and how they make our world more enjoyable, with their shade, coolness, and homes for birds and other animals.

The sapling you receive today is much like a spruce sapling Bob Grignafini received in 1979 when he was a Wellesley fourth grader. After planting it on Arbor Day, 1979, he took good care of it and now, 27 years later, see what can happen!



Saplings donated courtesy of the Rotary Club of Wellesley in cooperation with Wellesley Tree & Parks.

We hope you take care of your sapling and take pleasure watching it grow!

Hope you all have a good Arbor Day and enjoy planting and caring for your tree