

Activity 2: *Thank You Trees - Page 1 (1/2)*

Name _____

Draw a tree in your community. On each branch list a reason that trees are important.**List the benefits of trees:**

Look at photos of trees and determine the benefits. Match these categories to the photos.

Pleasant Attractive Surroundings

- Screen unpleasant views.
- Frame attractive views.
- Cool the air and provide shade and lower average daily temperatures.
- Bring beauty and character to neighborhoods.
- Provide breaks for cold winter winds.
- Buffer and reduce traffic and other noise.
- Provide attractive habitat for desirable birds and wildlife.

Social Improvement

- Calm traffic.
- Separate pedestrians and traffic.
- Encourage walking.
- Reduce family and community crime and violence.
- Promote self discipline and reliance, exploration, and increased student concentration.
- Increase adult concentration and work levels.

Good Health

- One hundred trees remove 10,000 lbs of carbon dioxide and 400 lbs ozone.
- Clean pollutants out of the air and water.
- Improve health, reduce stress and disease, increased healing.

Create Pride in Your Community

- Help communities meet and work together and promote community interaction.
- Provide opportunity for personal renewal and restoration.
- Promote economic benefits.
- Save energy and cut heating and air-conditioning costs.
- Save costs of energy production.
- Reduce storm water runoff, erosion and damage to streams.
- Promote people involvement and spending in commercial sales.
- Increase property values and property tax revenues.

One large tree can provide the following benefits each year.

Planted on the west side of the home, a tree saves \$29 in summertime air conditioning by shading the building and cooling the air (250 kWh). This is about 9 percent of a typical residential building's total annual air conditioning cost.

A tree absorbs 10 lbs. of air pollutants including 4 lbs. of ozone and 3 lbs. of particulates. The value of pollutant uptake by the tree is \$45 using the local market price of emission reduction credits. Uptake of NO₂ by the tree (1.07 lb.) is equivalent to NO₂ emitted by a typical car driven 188 miles.

A tree intercepts an average of 760 gal. of rainfall in its crown, thereby reducing runoff of polluted stormwater and flooding. This benefit is valued at \$6 based on local expenditures for water quality management and flood control.

Cleans 330 lbs. of CO₂ from the atmosphere through direct sequestration in the tree's wood and reduced power plant emissions due to cooling energy savings. The value of this benefit is \$5. The tree reduces the same amount of atmospheric CO₂ per year as released by a typical car driven 388 miles.

Adds about 1 percent to the sale of the property, or about \$25 each year when annualized over a 40-year period.