

Trees

Trees come in all sizes, shapes and colors. There are two main categories of trees, deciduous and coniferous. How do you tell them apart? Simply remember this: deciduous trees, like the Maple tree, lose their leaves once a year. Coniferous trees have cones and needles instead of leaves. Talk a walk around your school or house and check out the various sizes, shapes, and colors. Can you tell the difference between the deciduous and coniferous trees?



Clean Air Factory



One of the most important functions of trees is that they are able to clean the air we breathe. The scientific name for this process is the *Oxygen Cycle*. Plants, including trees, serve as the starting point for this cycle. Plants interact with sunlight in the process called photosynthesis. During photosynthesis, plants take the energy from sunlight and use it to change carbon dioxide and water into oxygen and carbohydrates. An easy way to understand this cycle is to think that trees breathe in the carbon dioxide and exhale (breathe out) oxygen. Humans and animals do the opposite. We breathe in oxygen and exhale carbon dioxide.

Tree Farms

You probably know that there are some farmers that grow Christmas trees. But, did you know that there are several other types of farms that grow trees for specific purposes. Some trees are grown for the lumber that is used to make furniture. Other



trees are grown for the nutritious nuts such as almonds and pecans that they produce. Some trees are grown in orchards that produce the fruits we enjoy such as apples, pears, and peaches. Whatever the final product, tree farmers carefully plant and care for their trees.

Amazing Products from Trees

Trees supply thousands of products for our daily lives. We eat fruits and nuts from trees, use decorative woods for jewelry and art projects, and make practical items like books and fences from wood.



Wood is used as a fuel for cooking and heating in stoves, fireplaces and barbecue grills. Houses, paper products and boxes are made from trees.

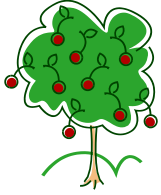


How can so many different products come from trees? It's because of the tree's structure. Trees are made up of **cellulose** that is held together with **lignin**. This makes the tree strong enough to use for building houses and furniture.

When wood is cooked, the cellulose is separated from the lignin to make wood **pulp**. This **pulp** is made into paper. The lignin can be used to make different chemicals that go into products like cosmetics, medicines and some foods.

Since so many products are made from wood and wood fiber, the average American uses the equivalent of a 100-foot tree every year!





Name: _____

Date: _____

This and That about Trees - Reading Passage

Directions: Read each question and fill in the best answer

1. Deciduous trees have needles and cones instead of leaves.

- A. True
- B. False

2. Coniferous tree lose their leaves once a year.

- A. True
- B. False

3. Trees are helpful to us because

- A. they lose their leaves.
- B. they have cones.
- C. they clean the air.
- D. they grow on tree farms.

4. Tree farmers grow trees to

- A. provide lumber.
- B. provide nuts.
- C. provide fruit.
- D. all of the above

5. Tree farmers

- A. do not have to worry about their trees.
- B. don't water their trees.
- C. carefully plant and care for their trees.
- D. always use the wood from their trees for fuel.

6. Which of the following come from a tree?

- A. cardboard box
- B. clean air
- C. paper towels
- D. all of the above

Extended Response:



Imagine a world without trees! Write an article that would go with the following headline in a newspaper - **All of Our Trees are Dying**. Describe at least 5 ways our lives would change if we had to live without trees. What would life be like without them? Support your writing with details from the article you just read AND from your own personal experience.

Tree Trivia



- Almost 1/3 of the United States is covered by forests!
- Christmas trees are grown in all 50 states, including Hawaii and Alaska.
- Trees combat the greenhouse effect and slow the effects of global warming. They soak up carbon dioxide and exhale oxygen for us to breath.
- Chemicals and other tree components are found in many everyday products -- not just in furniture and building materials! There's some part of a tree in tires, paint, adhesives, cereals, chewing gum, hair spray, mouthwash, shampoo, toothpaste, and even Twinkies®!
- Christmas trees generally take six to eight years to mature.
- 98 percent of all Christmas trees are grown on farms.

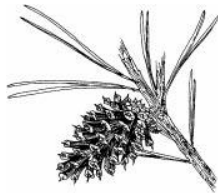
A Fun Science Activity for You to TRY...

Mystery Tree Challenge



You can become a tree detective by collecting a variety of samples of leaves and evergreens from your neighborhood.

Go to the website www.arborday.org/kids/Treemaze and use their 45 tree clue cards to identify the leaf/needle samples you have collected. If the samples selected are not specific to the clue cards, go to the National Arbor Day Foundation's website What Tree is This? Guide online at www.arborday.org/trees/treeid.html to identify your samples.



Check Out These Books



The Giving Tree by Shel Silverstein

A young man grows to manhood and old age experiencing the love and generosity of a tree which gives to him without thought of return.

The Tree Farmer by Chuck Leavell

A grandson confronts his grandfather, a tree farmer, about how he can grow trees with so much love and care, only to cut them down. But as they walk together through the trees, they discover the majesty of the forest and enjoy the life journey of each tree. This tale describes the gifts of the forest and our responsibility to care for trees, generation to generation.