

Conservation Trees

Each year, there are 1.5 billion tree seedlings planted in the U.S. - that's more than 5 new trees for each American, and nearly 2,000 for every bear!

A windbreak can reduce wind velocity by as much as 70 percent. If wind is reduced, you may use at least 15 percent less heating fuel in your home.

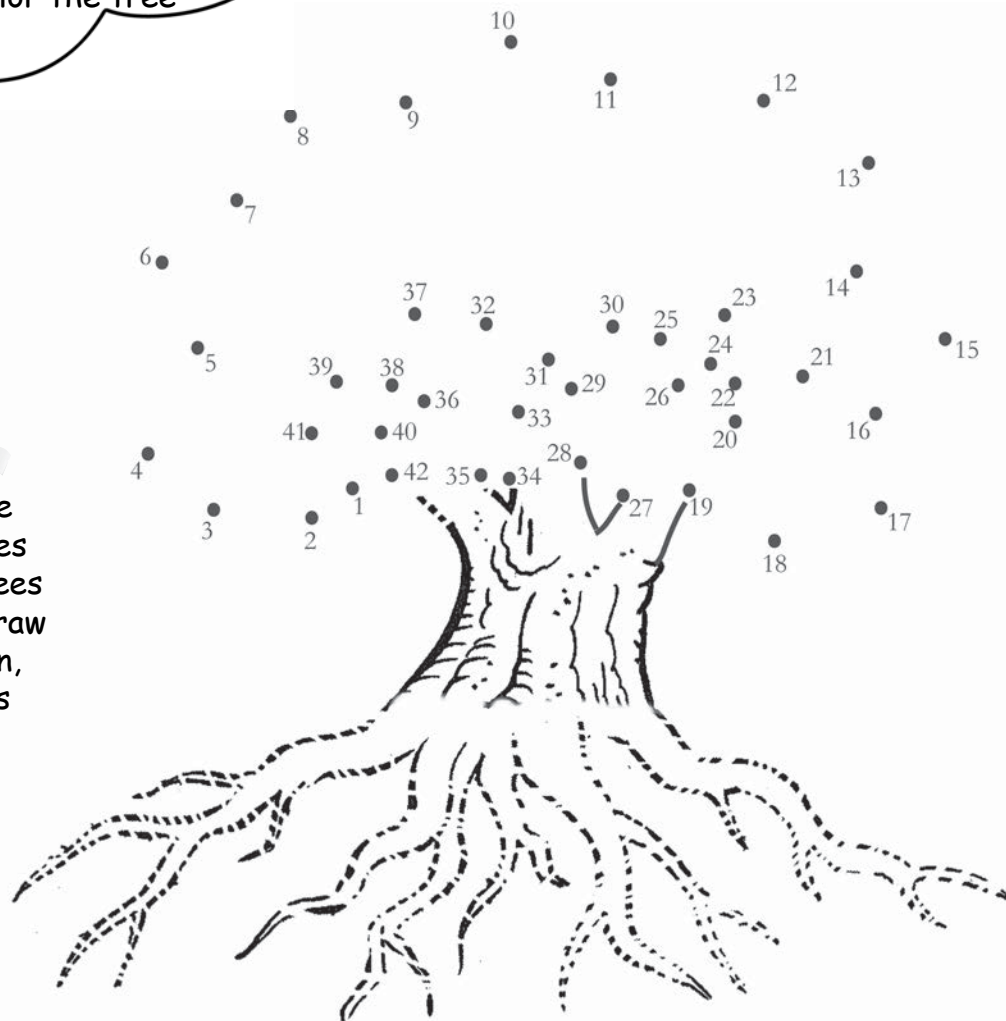
As of the year 2000, 9.8 billion acres of forest covered the earth. That's almost 30 percent of earth's total land area.

There are 747 million acres of forest land in the United States. Montana has 22.5 million acres of forest land - only three percent of the national total.

The single oldest living thing on Earth is a tree, a 4,700 year-old bristlecone pine tree in Nevada. It was growing when the Egyptians built the pyramids!

A tree has different parts. LEAVES make food for the tree. BRANCHES hold the leaves up to the sun. The TRUNK holds the tree nice and tall. ROOTS get water and nutrients from soil. Connect the dots to complete the drawing of the tree. Then color the tree and all of its parts.

Trees need things around them to grow. Trees need SUN to make food in their leaves. Trees need RAIN for water. Trees need SOIL to grow big. Draw a YELLOW sun, BLUE rain, and BROWN soil for this tree so that it will keep growing.

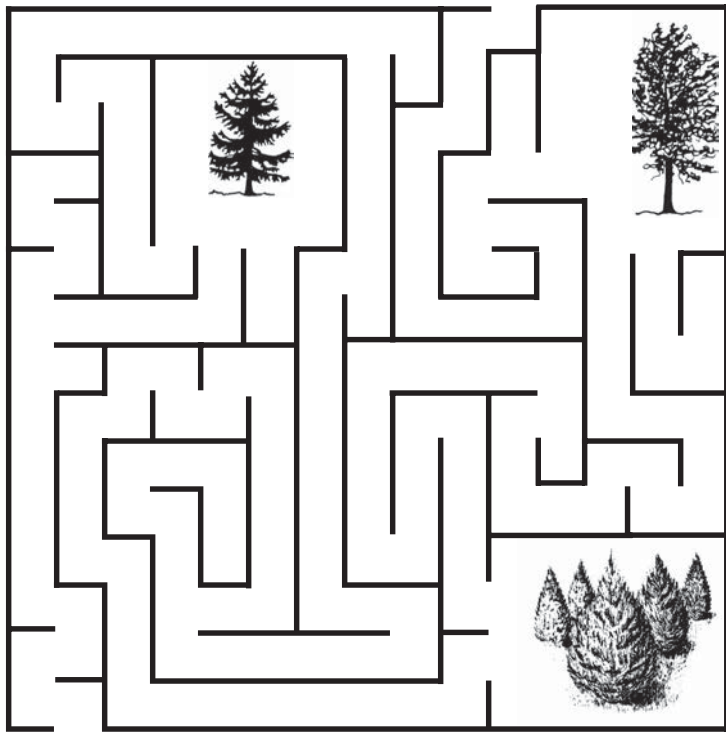


B T W C S R U B B E R L N
 I O U V E H G F B B P D M
 L Y J B K P E N C I L S C
 A S M L Z B M E R H F K I
 P U F T O P E D P G U C L
 L B V U H F D P A I E N D
 C A P E R T I K I J L Q W
 X S A E G N C L N R D I C
 O T P S T L I S T U E S A
 K A N I O Y N T J M R D R
 P H U V S M E D U E L I P
 T R S F E L U S T R G S E
 F O C L O T H E S M E W T

Many of the things we use everyday come from trees. You might be surprised by some of the things made from wood or by products of trees.

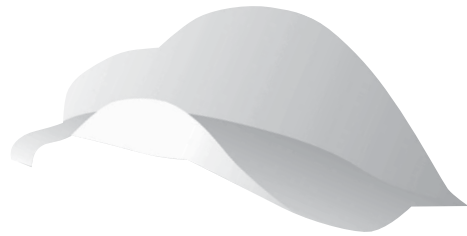
Find the words from the list in the word search. Can you think of more products you use that come from trees? Make a list of the products and make your own word search to share with classmates.

- | | | |
|---------|-----------|---------|
| Carpet | Furniture | Paper |
| Clothes | Lumber | Pencils |
| Fruit | Medicine | Rubber |
| Fuel | Paint | Toys |



Trees make your town a better place to live. There are many places to plant trees, however there are also some things to keep in mind when planting a tree.

Be sure to find out where any underground utility lines are, make sure your tree will have plenty of room to grow, and choose the right type of tree. How do you know if it is the right tree? You can find more information at your local nursery. Landscape professionals should be able to tell you where a tree will grow healthy and strong.



Trees give us benefits every day. Sometimes we take for granted all we get from trees. But when you start adding it up, the gifts from trees are amazing! Solve these problems to see the benefits from one tree. For these problems, assume that this tree will live for 50 years.

This oak tree produces 5,475 acorns in one year. If one squirrel needs 5 acorns a day, how many squirrels can this tree feed for one year?
_____ squirrels

Trees transform carbon dioxide into oxygen that we need to breathe. If this one tree makes enough oxygen each day to fill 2 houses that measure 1800 square feet, how many houses full of oxygen will it produce over its lifetime? (Assume its oxygen production is steady. In reality, the rate varies with the growth of the tree.)
_____ houses full

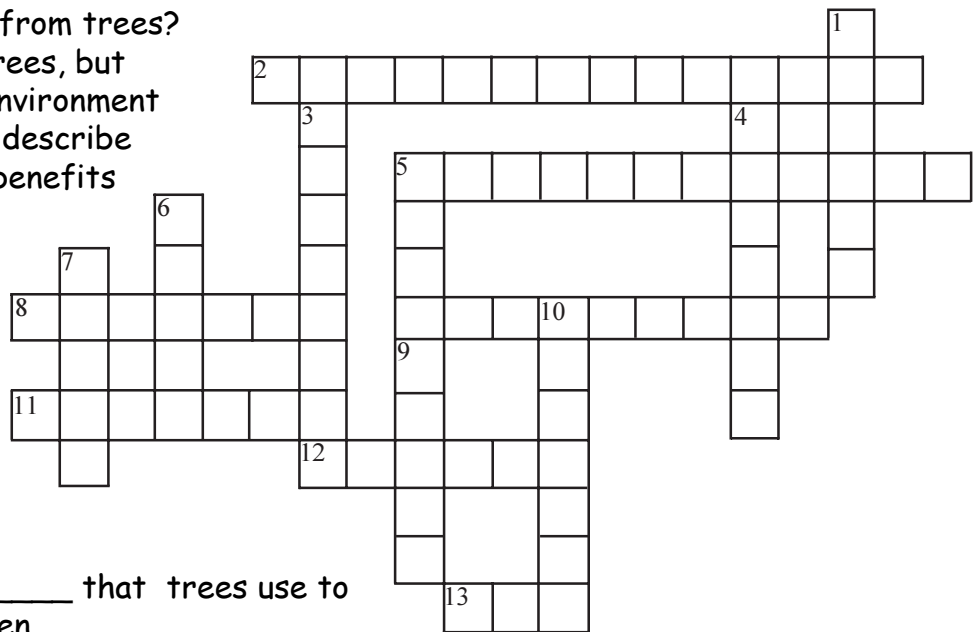
Trees add water vapor to the air through transpiration. If an acre of trees can transpire 600 tons of water per day, and there are 40 trees per acre, how many tons of water will one tree transpire during the months of May, June, July, and August?
_____ tons

This tree adds 400 pounds of leaves to the soil each year. By holding soil with its roots, and by slowing the fall of rain with its leaves, the tree also prevents 100 pounds of soil from eroding each year. After 12 years, by how many tons of soil has this tree enriched this location?
_____ tons

Answers: Math (pg. 3) - (1) 3 squirrels, (2) 36,500 houses full, (3) 1845 tons, (4) 3 tons
Crossword Puzzle (pg.4) - Across: (2) photosynthesis, (5) water quality, (8) organic,
(9) diversity, (11) benefit, (12) yields, (13) fun, Down: (1) hiking, (3) velocity, (4) habitat,
(5) windbreak, (6) shade, (7) trees, (10) erosion

What benefits do we get from trees?
 We all know wood comes from trees, but trees also help to improve the environment that we live in. The clues below describe some of the many conservation benefits of trees. Use the clues to fill in the crossword puzzle.

Do you understand all of the benefits? Some of these benefits might need further investigation and discussion so that you understand them.



Across

- 2. The process of _____ that trees use to make energy also produces oxygen.
- 5. Trees help improve _____ because roots filter water as it moves toward streams.
- 8. Trees add _____ material that helps to improve the soil.
- 9. Species _____ is important to the many different organisms that depend on trees for their survival.
- 11. Another _____ from photosynthesis is that trees sequester excess carbon present in the atmosphere.
- 12. When trees are used to protect crops from drying and erosion, crop _____ will increase.
- 13. Trees are ___ to climb, use as forts, and play in.

Down

- 1. Woodlands provide people with fun opportunities such as _____, hunting, and bird watching.
- 3. Trees' leaves and branches slow wind _____.
- 4. In wildlife _____, trees act as a source of food and cover.
- 5. A row of trees planted to reduce wind erosion, protect livestock, and provide wildlife food and cover is a _____.
- 6. One way to keep your home cooler is to plant trees for _____.
- 7. Landscapers have many choices to make when using _____ to improve aesthetics.

10. When wind is slowed, the level of soil _____ also decreases.



We would like to thank the National Association of Conservation Districts for allowing us to use some of the activities developed for The Gift of Trees, Soil & Water Stewardship 2002, educational materials. To find out about these materials contact your local conservation district or NACD at www.nacdnet.org or 1-800-825-5547, ext. 32. Also visit our website at www.mt.nrcs.usda.gov

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