Did you know more than 5,000 products we use every day are made from trees? Some wood products are easy to recognize — furniture, pencils, baseball bats, guitars, houses and paper. Others may surprise you.

Yikes! There’s a forest in my house!

This house contains all the items from the following list. Can you find them?

- shutters
- fireplace mantel
- bed
- curtain rod
- crib
- books
- skateboard
- birdhouse
- hardwood floors
- rocking chairs
- guitar
- pool cue
- sofa
- hat rack
- sled
- trunk
- stools
- seesaw
- pool table
- desk lamp
- fruit in bowl
- boxes
- picket fence
- high chair
- swingset
- boots
- picture frame
- rake handle
- umbrella
- linoleum kitchen tile

"Wood" You Believe It?

From the Forest

ACTIVITIES & Extras

words to know

collapsible — wood fiber

fibril — a glue-like chemical that holds a tree’s wood fibers together

syntetic — not found in nature

Trees are Tasty

Ice cream and salad dressings are made from a soft wood fiber called cellulose to make them thick, smooth and creamy.

Two a Day

Apples are not the only things we get from a tree that are good for your teeth. Synthetics and toothpaste both come from wood products.

Trees Go a Tree

Trees, steering wheels, and molded armrests in cars and trucks are all made from tree or wood fiber products.

Twice a Day

Dancers put rosin on the bottom of their shoes so they don’t slip. Baseball players also use rosin to keep their hands dry.

Picture This!

Photographic slides and film also come from trees.

Educational in Nature

Ice cream and salad dressings use a part of the tree called cellulose to make them thick, smooth and creamy.

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ICE CREAM AND SALAD DRESSINGS USE A PART OF THE TREE CALLED CELLULOSE TO MAKE THEM THICK, SMOOTH AND CREAMY.
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**Wear a tree!**

Fabrics such as rayon are made from tree fibers.

**Food from trees**

Ice cream and salad dressings use a part of the tree called cellulose to make them thick, smooth and creamy.

**Tree treats**

1 cup vanilla ice cream
1/4 cup orange juice
1 teaspoon cinnamon
1/4 cup almonds or pecans
1 banana

Mix the ice cream, orange juice, cinnamon and nuts in a blender (make sure an adult is there to help). Top with nuts for a tasty treat.

**From the Forest**

**ACTIVITIES & Extras**

- dancers put rosin from trees on the bottom of their shoes so they don’t slip. Baseball players also use rosin to keep their hands dry.
- apples are not the only things we get from a tree that are good for your teeth. Toothbrushes and toothpaste both come from wood products.
- tires, steering wheels and molded armrests in cars and trucks are all made from trees or wood fiber products.
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From the Forest

Building Products

People have used wood to build shelter since ancient times. They first used whole logs or large timbers. As technology developed, people were able to make and use thinner or lighter types of wood products to build schools, houses, office buildings, and even tree houses.

Chemicals

Trees are a natural supply of valuable chemicals. Chemicals such as turpentine and resin come from the sticky sap of trees. Lignin is another chemical we get from trees. Cellulose, the wood fiber used for making pulp and paper, is also used in many products.

Paper

Trees are used to make pulp and paper products — notebook paper to write on, diapers for your baby brother or sister, packaging to protect frozen foods, napkins to wipe mustard from your mouth, books and magazines to read, paper cups to drink from, and even envelopes to carry messages across the country and around the world.

COPYING NATURE

Scientists find useful compounds that trees make naturally and then learn to make them in a factory from synthetic materials. Aspirin originally came from a substance in willow bark. Rubber also has been “copied” in a factory.

WHAT KIND OF TREE IS IN MY PAPER?

Different kinds of paper are made from the fiber of different kinds of trees. Paper for clothes and towels that need to be soft, smooth or absorbent are made primarily from hardwood trees such as cedars and maples. These fibers are cooked longer so the paper doesn’t tear too easily. Hardwood fibers make it smooth so you can write on it.

MAKING PAPER

Legs are clipped into small pieces of wood. These chips are cooked with chemicals to dissolve the glue-like lignin holding the wood fibers together. This leaves a pulp made of cellulose fibers and lots of water. The pulp is put on a screen to let the water drain away. The fibers remain to form a sheet of paper that is dried and put on a roll.

USING CELLULOSE IN MANY PRODUCTS

Cellulose fibers are converted and used in many products. Cellulose gives us what makes commercial “paste” and helps it stay on the toothbrush. In some household chemicals, cellulose provides support and structure. Cooking and eating often use cellulose. Shampoo would be just watery soap without cellulose to make it thick.

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CHEMICALS FROM TREES

How can we create so many different chemical products from trees? When chemicals are removed from the tree and mixed with other chemicals, a chemical reaction occurs. The energy from this reaction can create a completely different chemical. This is how chemicals from trees are used to make products as different as artificial atificial sugar and foams for your eyeglasses.

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POULTRY

Many building products are made to take advantage of the strength of the wood grain. Plywood is made by stacking layers of wood — one sheet of wood — with the wood grains at right angles to each other. This makes a plywood panel strong, both up and down and from side to side. Other engineered building products such as particleboard are made of wood chips or shavings mixed with a special glue. By eliminating the wood grain, we can make products that have excellent strength in all directions.

NATURE’S STRENGTH

Did you ever wonder what makes wood so strong? A combination of wood fiber and the lignin, or glue, that binds the wood fibers together.

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PAPER HISTORY

In ancient times, people wrote on animal skins, bones and clay tablets. Around 3500 BC, the Egyptians wrote on a woven mat of reeds called papyrus, which is where the word paper comes from. Around 2000 years ago, the Chinese discovered they could make a thin paste of mulberry bark, hemp and other fibers and let it dry into a sheet in the sun. Many types of paper are now made from wood.

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CHANGING STRENGTH

DOES WOOD CHANGER?

When wood is cooked, the substance called lignin. This makes the tree fibers that are held together with a glue-like structure. Trees are made up of cellulose from wood are used to make products such as rayon fabric and rubber balls.

CHEMICALS FROM TREES

How can we create so many different chemical products from trees? When chemicals are removed from the tree and mixed with other chemicals, a chemical reaction occurs. The energy from this reaction can create a completely different chemical. This is how chemicals from trees are used to make products as different as artificial sugar and foams for your eyeglasses.

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POULTRY

Many building products are made to take advantage of the strength of the wood grain. Plywood is made by stacking layers of wood — one sheet of wood — with the wood grains at right angles to each other. This makes a plywood panel strong, both up and down and from side to side. Other engineered building products such as particleboard are made of wood chips or shavings mixed with a special glue. By eliminating the wood grain, we can make products that have excellent strength in all directions.

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From the Forest

People have used wood to build shelter since ancient times. They first used whole logs or large timbers. As technology developed, people were able to make and use thinner or lighter types of wood and wood fiber products for building.

Building Products

Trees supply thousands of products we use in 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, barbecue grills. Houses, paper and boxes are made from trees, and the fibers and chemicals from wood are used to make products such as rayon fabric and rubber balls.

How can so many different products come from trees? It’s because of the tree structure. Trees are made of cellulose fibers that are held together with a glue-like substance called lignin. Lignin 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 put on a screen to let the water drain away. The fibers remain to make pulp and paper.

Chemicals

Trees are a natural supply of valuable chemicals. Chemicals such as turpentine and resin come from the sticky sap of trees. Lignin is another chemical we get from trees. Cellulose, the wood fiber used for making pulp and paper, is also used in many products.

WHAT KIND OF TREE IS IN MY PAPER?

Different kinds of paper are made from the fiber of different kinds of trees. Products like bath tissue, napkins and toothpaste that need to be soft, smooth or absorbent are made primarily from hardwood trees such as oaks and maples. These fibers are cooked for just a short time to keep their strength. Products like book covers, bags and boxes have to be strong and last a long time. These fibers are made from softwood trees like firs and pines.

USING CELLULOSE IN MANY PRODUCTS

Cellulose fibers are converted and used in many products. Cellulose gum is what makes toothpaste “paste” and helps it stay on the toothbrush. In household cleaner, cellulose powder keeps the ground white from grass and lawn clippings. Shampoo would just be watery soap without cellulose to make it thick.
Building Products

People have used wood to build shelter since ancient times. They first used whole logs or large timbers. As technology developed, people were able to make and use thinner or lighter types of wood products to build schools, houses, office buildings, and even tree houses. Cellulose, the wood fiber used for making pulp and paper, is also used in many products.

Chemicals

Trees are a natural supply of valuable chemicals. Chemicals such as turpentine and resin come from the sticky sap of trees. Lignin is another chemical we get from trees. Cellulose, the wood fiber used for making pulp and paper, is made from trees, and the fibers and chemicals can be used to make different products — notebook paper, is also used in many products.

WHAT KIND OF TREE IS IN MY PAPER?
Different kinds of paper are made from the fibers of different kinds of trees. You need to be able to write on it. Other engineered building products such as particleboard are made of wood chips or shavings mixed with a special glue. By eliminating the wood grain, we can make products that have excellent strength in all directions.

PAPER HISTORY
In ancient times, people wrote on animal skins, bones and clay tablets. Around 3500 BC, the Egyptians wrote on a woven mat of reeds called papyrus, which is where the word paper comes from. Around 2000 years ago, the Chinese discovered that they could make a thin paste of mulberry bark, hemp and rags and let it dry into a sheet of paper. Today, most of the paper we use is made from wood.

MAKING PAPER
Legs are chopped into small pieces of wood. These chips are cooked with chemicals to dissolve the glue-like substance called lignin. This makes the tree strong enough to use for building houses. Buildings, stores and even tree houses. Cellulose is separated from the lignin to make wood pulp. This pulp is made into wood pulp. This pulp is made into pulp and paper.

CHANGING PAPER
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COPYING NATURE
Scientists find useful compounds that trees make naturally and then learn to make and use thinner or lighter types of wood products to build schools, houses, office buildings, and even tree houses. Cellulose, the wood fiber used for making pulp and paper, is used in many products. Cellulose gum is one of the many products made from wood.

ECONOMIC TREES
Since so many products are made from wood and fiber, the average American uses the equivalent of a 100-foot tree every year!
Did you know more than 5,000 products we use every day are made from trees? Some wood products are easy to recognize — furniture, pencils, baseball bats, guitars, houses and paper. Others may surprise you.

**Yikes! There’s a forest in my house!**

This house contains all the items from the following list. Can you find them?

**EDUCATIONAL IN NATURE**
***PERFORM BETTER***
- Dancers put rosin from trees on the bottom of their shoes so they don’t slip. Baseball players also use rosin to keep their hands dry.

**WORDS TO KNOW**
- cellulosic - wood fiber
- lignin - a glue-like chemical that holds a tree's wood fibers together

**WEAR A TREE**
- Fabrics such as rayon are made from tree fibers.

**PICTURE THIS!**
Photographic slides and film also come from trees.

**TREES ARE TASTY**
Ice cream and salad dressings use a part of the tree called cellulose to make them thick, smooth and creamy.

**TWICE A DAY**
Apples are not the only things we get from a tree that are good for your teeth. Toothbrushes and toothpaste both come from wood products.

**THERE GOES A TREE!**
- Tires, steering wheels and molded armrests in cars and trucks are all made from tree wood fiber products.