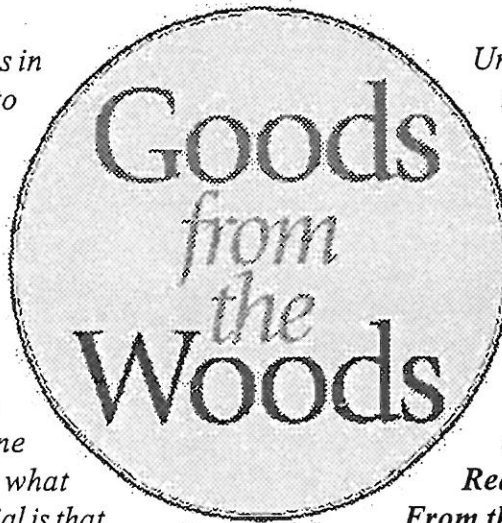


Through research and advances in technology, we have learned to convert tree fibers and paper-pulping residues into a wealth of products. In fact, there are more than 5,000 wood and paper products that we use and enjoy each day — everything from baby food and ice cream, to rayon and paint, to toothpaste, cosmetics, medicine and household cleaners. But what makes all of these products special is that they come from a renewable resource — trees.



Unlike fossil fuels, metals and plastics, wood can be harvested, used, regrown and harvested again and again in a never-ending cycle. With proper forest management, we can enjoy thousands of products and still have plenty of trees for wildlife habitat, clean air and water, recreation and aesthetic beauty today and in the future.

Read on to learn more about Goods From the Woods!

Toothpaste: Toothpaste contains cellulose gum, a natural product derived from wood. The gum acts as a binder and provides a creamy texture. Toothpaste may also contain terpenes, a chemical derived from wood that is used to sweeten the spearmint or peppermint flavor of many toothpastes and mouthwashes.

Soft drinks: Many citrus flavored soft drinks contain chemicals from trees called esters. Esters, which are derivatives of wood rosin, act as a weighting agent and assure a uniform distribution of the citrus flavor throughout the drink.

Lotion: Many beauty products, including lotions, contain Vitamins A and E, which come from wood extracts. Many skin lotions also contain stearic acids that are derivatives of fatty acids produced during the papermaking process.

Glue: Glues and adhesives can be made from hard resins, a natural substance that comes from trees.

Dishwashing liquid: Detergents, soaps and shampoos, are made from crude fatty acids derived from wood. The lemon scent of some dishwashing liquids and furniture polishes comes from trees during pine turpentine processing.

Chewing gum: Chewing gum is made by using the rosin or storax of trees such as spruce. Chewing gum may also contain terpenes, a group of pine derivatives used to sweeten peppermint and spearmint oils used as flavoring.

Cinnamon: Many spices used in cooking — such as nutmeg, bay leaves and cinnamon — come from trees. Cinnamon is made from the bark of the laurel tree which grows in India and Sri Lanka. Sticks of cinnamon are produced by cutting bark off of young saplings. When left to dry, the bark curls up.

Crayons: Carnauba wax, a resin produced by the leaves of the carnauba tree, is the waxy component of crayons. Carnauba wax is also used in car wax, and as a finish coating on furniture, produce (such as apples and pears) and a wide variety of other products. The pharmaceutical industry uses it to coat pills, and it is a major ingredient in lipstick and other cosmetics.

Instant hot chocolate: Instant hot chocolate contains cellulose or methylcellulose, the main building block of wood. This form of cellulose acts as a thickening and binding agent.

Cellophane tape: Cellophanes are derived from the sugar components of wood during the pulping process and are used in making such products as wrap and tape.

Cookies: Many baked goods contain cocoa from the seeds of the cacao tree, and vanillin, an artificial flavoring made from wood.

Facial tissue: Papers — including facial tissues, toilet paper, paper towels, newspapers, and writing papers — are made from cellulose, the main building block of wood.

Medicine: Aspirin tablets and other medicines in tablet form are held together with lignin, which is the natural glue in wood. The essential elements of aspirin come from the bark of willow trees. Many other medicines used in treating diseases such as high blood pressure and Parkinson's disease also contain various wood derivatives.

Coffee: The nuts and seeds of many trees provide food for both humans and animals. Most of the world's coffee is obtained from the berries of the Arabica coffee tree. Other edible nuts and seeds include pine kernels, walnuts and pecans.

A Day Without Forest Products

Purpose:

To heighten students' awareness of the importance of trees to their everyday lives; to develop observation, creative thinking and creative writing skills.

Materials:

- Goods from the Woods box OR forest products that you may have around your home or classroom such as: glue, cellophane tape, toothpaste, facial tissue, chewing gum, dishwashing detergent, chocolate cookies, crayons, lotion, cinnamon, aspirin, citrus-flavored soft drink, instant hot chocolate, and coffee
- product information cards

Procedure:

- Hold up one product at a time and have your students vote as to whether or not they think it comes from a tree. Be sure they understand that you are not talking about the packaging of the product but the product itself or some component of the product. Put the ones that they think come from a tree in one pile and the ones that they don't think come from a tree in another.
- After you have gone through all the products, hand out the product information cards that describe how the products are made from trees. Hold up the products one at a time and have the students explain their vote as to whether it is a tree product. Then have the student with the corresponding card read it out loud to the rest of the class. Discuss what part of the tree the product comes from.
- Have the students think of products similar to the ones you've shown them that also might come from trees. For example, adhesives other than glue, cellophane tape and hair spray that come from trees include adhesive bandages and masking tape. Examples of solid wood products other than a hammer and pencils include furniture, picture frames, hardwood floors, lumber to build houses, firewood, pencils and toothpicks.
- Next instruct your students to write a story about what it would be like to go through a day without forest products. Remind them that they would not have a house to live in or a bed to sleep in. Their car wouldn't have a steering wheel, so they couldn't drive anywhere. They wouldn't have toothpaste, a toothbrush, shampoo, soap or toilet paper. They wouldn't have a chair to sit in, aspirin for a headache, orange juice for breakfast. Encourage your students to be creative. Some of them might like to think about how sports would be different without wooden baseball bats or football helmets. Students who are interested in music may want to write about all the musical instruments that would not exist -- pianos, violins, guitars, woodwinds. And the artists in the group may want to think about what life would be like without paint or paper on which to draw.

CELLOPHANE TAPE

Cellophanes are derived from wood sugars extracted during the papermaking process. They are used in making such products as tape and wrap.

CHEWING GUM

Chewing gum base is made from the rosin or storax (part of the sap) of trees such as spruce. Chewing gum may also contain terpenes, wood chemicals used to sweeten peppermint and spearmint flavors.

FACIAL TISSUE

Papers – including facial tissues, toilet paper, paper towels, newspapers and writing papers – are made from cellulose, the main building block of wood.

TOOTHPASTE

Toothpaste contains cellulose gum, a natural product derived from wood. The gum acts as a binder and provides a creamy texture. Many toothpastes also contain terpenes, a chemical derived from wood used to sweeten spearmint or peppermint flavors.

SOFT DRINKS

Many citrus-flavored soft drinks contain chemicals from wood called esters. The esters, which are chemicals left over from the papermaking process, act as a weighting agent and assure an even mixture of the citrus flavors.

COOKIES

Many foods contain cocoa from the seeds of the cacao tree and vanillin, artificial vanilla flavoring made from lignin, the natural glue that holds wood together.

COFFEE

The nuts and seeds of any trees provide food for both humans and animals. Most of the world's coffee is obtained from the berries of the Arabica coffee tree. Other edible nuts and seeds include pine kernels, walnuts and pecans.

GLUE

Many glues and adhesives are made from hard resins, a natural component of the sap in trees.

CRAYONS

Carnauba wax, which comes from the leaves of the carnauba tree, is the waxy component of crayons, lipstick and other cosmetics. It also is used in car wax and as a finish coating on furniture, fruits, vegetables and a wide variety of other products including the coating on medicine tablets.

DISHWASHING LIQUID

Detergents as well as many soaps and shampoos, are made from crude fatty acids derived from wood. The artificial lemon scent of some detergents and furniture polishes is produced during pine turpentine processing.

LOTION

Many products, including lotions, contain Vitamins A and E, which come from wood extracts. Many skin lotions also contain stearic acids which are derivatives of fatty acids produced during the papermaking process.

MEDICINE

Aspirin and other medicines in tablet form is held together with lignin, the natural glue that holds wood together. The essential elements of aspirin come from the bark of willow trees. Other medicines used in treating diseases such as high blood pressure and Parkinson's disease also contain various wood derivatives.

CINNAMON

Many spices used in cooking - such as nutmeg, bay leaves and cinnamon - come from trees. Cinnamon is made from the bark of the laurel tree, which grows in India and Sri Lanka. Sticks of cinnamon are produced by cutting bark off young saplings. When left to dry, the bark curls up.

INSTANT HOT CHOCOLATE

Instant hot chocolate contains cellulose or methylcellulose, the main building block of wood. This form of cellulose acts as a thickening and binding agent.