

Science Spin

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How Did my Homework Become Toilet Paper?

We all use toilet paper. But most is made from freshly cut trees. Here's how one company is making toilet paper from your old homework!

 SCHOLASTIC

From Homework

Learn how a company makes toilet paper from paper we have put in recycling bins.

Could your old homework become a roll of toilet paper?

No way, you think. There was a staple in the top of your homework. (Ouch!) You wrote your name in dark ink. The paper got dirty and wrinkled. Toilet paper is white, clean, and soft.

And toilet paper comes from trees, right? You have to cut down a lot of trees to make paper. Not always!

The Marcal paper factory makes toilet paper from recycled paper. Chief Engineer Mark Vertucci showed us how they do it.

Step 1: Turn It Into Pulp

First, workers put your old homework and other scrap paper in a machine that is like a giant blender. They add warm water. Chop, chop, chop! Your homework is cut into tiny pieces. The tiny bits of paper are called **pulp**. Mark says, "It gets to be like oatmeal."

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All this recycled paper will become something new!

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Work to Toilet Paper



Step 2: Get the Staples Out

But what about the pointy staple? To be careful of that, Mark puts the pulp into a machine that whirls it around really fast. The pulp sticks to the sides.

The staple sinks to the bottom.
Goodbye, staple!



Step 3: Remove the Ink

What about the dark ink? You wrote your name on that homework. Mark can get the ink out too.

He puts the pulp in another machine. He shoots in soap and air. It's bubble time! The ink sticks to the soap bubbles, which rise to the top. "Up they go," Mark says. The bubbles flow over the side of the tank. Goodbye, ink!

Step 4: Pulp Becomes Paper

Workers clean the pulp a few more times. The pulp gets white and fluffy. Then workers drain the water. Hot rollers press the pulp flat.

Your old homework is now paper, but it's not *toilet* paper yet.

The Marcal factory in New Jersey cuts these logs into shorter rolls.



Step 5: Making the Rolls

Mark sends the paper through a machine that stamps a pattern on it. This makes it prettier, softer, and more **absorbent**. That means it soaks up more, uh . . . liquid.

Finally, Mark makes a super-long roll of toilet paper called a log. A machine slices the log into smaller rolls.

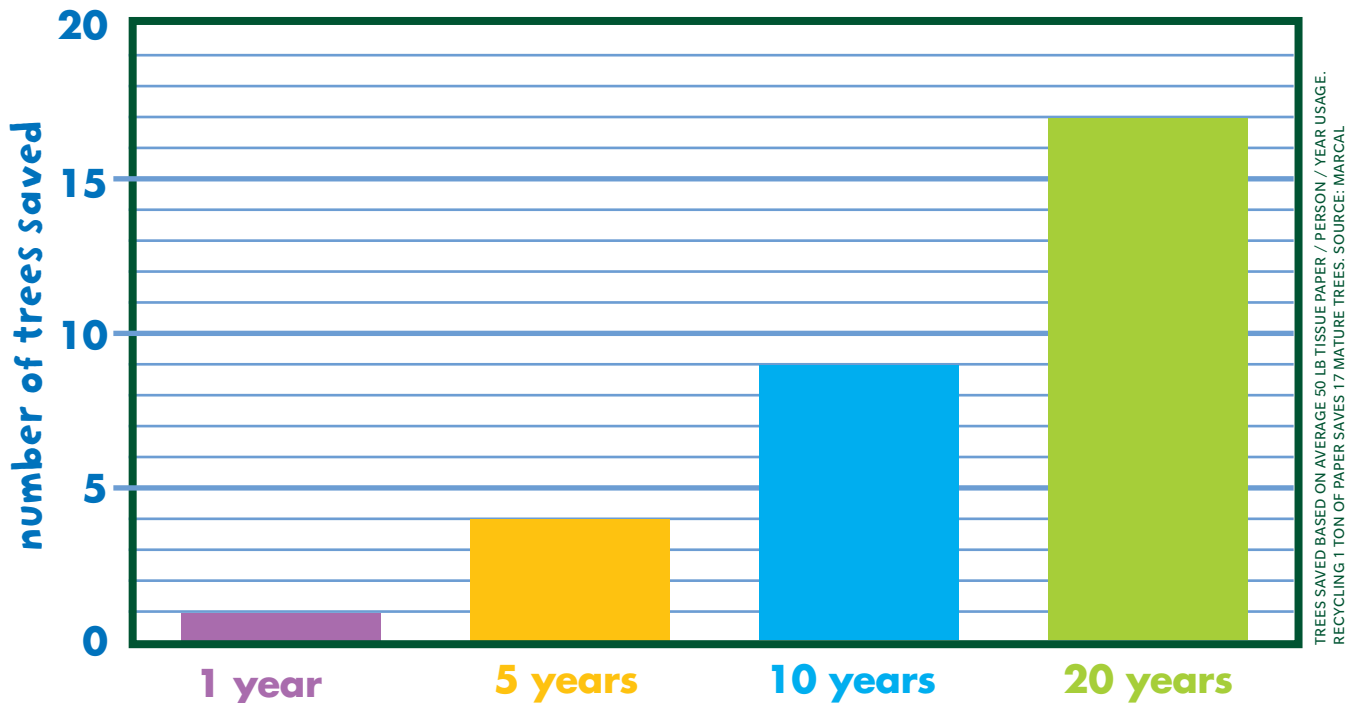
Your old homework is finally toilet paper. It goes on a truck. Where will it go? Maybe right back to your school!



Name _____

How Many Trees Can You Save?

Millions of trees are cut down to make paper. Trees provide homes for animals and clean air for us to breathe. How many trees could you and a friend save by using recycled toilet paper and tissues?



1. How many trees would you save in 1 year?

- ☐ 1 tree ☐ 9 trees ☐ 20 trees

2. How many trees would you save in 5 years?

- ☐ 1 tree ☐ 4 trees ☐ 9 trees

3. How many trees would you save in 20 years?

- ☐ 4 trees ☐ 9 trees ☐ 17 trees

★BONUS★

How many more trees would you save in 20 years than in 5 years? ☐ 11 trees ☐ 13 trees ☐ 20 trees

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