Name: _____ Date: _____

How Paper Is Made

Circle group

Most paper starts as wood from trees. Many of the trees grow on tree farms. Trucks bring the logs to a paper mill. There, machines strip off the bark and chop the wood into small chips.

Next, the chips are cooked in water with chemicals. They break down into soft fibers. The mixture is called pulp. It looks like thick, lumpy oatmeal. The pulp is washed. If the paper will be white, it is also cleaned to make it brighter.

Then the pulp is sprayed onto a moving screen. Most of the water drains out through tiny holes. The fibers tangle together into a thin, wet sheet. Heavy rollers squeeze out more water, and hot rollers dry the sheet. At the end, the paper is wound onto giant rolls and cut into sheets.

Paper can be recycled. Old paper is mixed with water and made into pulp again. Then it can become new sheets. Recycling helps save trees and energy.

Questions

1. What is most paper made from?

_____

_____

2. What happens to the wood at the mill before it is cooked?

_____

_____

3. What is pulp?

_____

_____

4. What do the heavy rollers do?

_____

_____

5. Why is the pulp sprayed onto a screen with tiny holes?

_____

_____

6. How can old paper become new paper?

_____

_____

Words to know

mill: a factory where a material is made or processed
fibers: thin threads that make up a material
pulp: a soft, wet mixture made from wood fibers and water
recycled: used again to make something new

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

How Paper Is Made

Triangle group

Most paper starts as wood from trees. Many of the trees are grown on tree farms. Trucks carry the logs to a paper mill, where machines strip off the bark and chop the wood into small chips.

Next, the chips are cooked in water with chemicals until they break down into soft fibers. The mixture is called pulp. It looks like thick, lumpy oatmeal. The pulp is washed, and if the paper will be white, it is also cleaned to make it brighter.

Then the pulp is sprayed onto a moving screen. Most of the water drains away through tiny holes, and the fibers tangle together into a thin, wet sheet. Heavy rollers squeeze the sheet to press out more water, and hot rollers dry it. At the end, the paper is wound onto giant rolls and cut into sheets.

Paper can be recycled. Old paper is mixed with water and broken into pulp again, so it can be made into new sheets. Recycling helps save trees and energy.

Questions

1. What is most paper made from?

_____

_____

2. What happens to the wood at the paper mill before it is cooked?

_____

_____

3. What is pulp?

_____

_____

4. What do the heavy rollers do?

_____

_____

5. Why does the pulp get sprayed onto a screen with tiny holes?

_____

_____

6. How can old paper become new paper?

_____

_____

Words to know

mill: a factory where a material is made or processed
fibers: thin threads that make up a material
pulp: a soft, wet mixture made from wood fibers and water
recycled: used again to make something new

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

How Paper Is Made

Square group

Most paper begins as wood from trees, and many of those trees are cultivated on tree farms. Trucks transport the logs to a paper mill, where enormous machines strip off the bark and chop the wood into small chips.

Next, the chips are cooked in water with chemicals until they break down into soft fibers. This mixture is called pulp, and it resembles thick, lumpy oatmeal. The pulp is washed, and if the paper is meant to be white, it is also treated to make it brighter.

Then the pulp is sprayed onto a moving screen. Most of the water drains away through tiny holes while the fibers tangle together into a thin, wet sheet. Heavy rollers squeeze the sheet to press out additional water, and hot rollers dry it completely. At the end of the process, the paper is wound onto giant rolls and cut into sheets.

Paper can also be recycled. Old paper is mixed with water and broken down into pulp once again, so that it can be transformed into new sheets. Recycling helps conserve trees and energy.

Questions

1. What is most paper made from?

_____

_____

2. What happens to the wood at the paper mill before it is cooked?

_____

_____

3. What is pulp?

_____

_____

4. What do the heavy rollers do?

_____

_____

5. Why is the pulp sprayed onto a screen with tiny holes?

_____

_____

6. How can old paper be transformed into new paper?

_____

_____

Words to know

mill: a factory where a material is made or processed
fibers: thin threads that make up a material
pulp: a soft, wet mixture made from wood fibers and water
recycled: used again to make something new

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: How Paper Is Made

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: How Paper Is Made

Easier · 160 words · Flesch-Kincaid grade 2.8

1. Wood from trees.
2. Machines strip off the bark and chop it into chips.
3. Soft wood fibers mixed with water, like thick lumpy oatmeal.
4. They squeeze water out of the wet sheet.
5. The water drains out through the holes, and the fibers stay and tangle into a sheet.
6. It is mixed with water and made into pulp again.

Triangle: How Paper Is Made

This passage · 169 words · Flesch-Kincaid grade 4.3

1. Wood from trees.
2. Machines strip off the bark and chop the wood into chips.
3. A mixture of soft wood fibers and water, like thick lumpy oatmeal.
4. They squeeze the wet sheet to press out water.
5. The water can drain away through the holes while the fibers stay and tangle together into a sheet.
6. It is mixed with water and broken into pulp again.

Square: How Paper Is Made

Harder · 181 words · Flesch-Kincaid grade 6.7

1. Wood from trees.
2. Machines strip off the bark and chop the wood into small chips.
3. A mixture of soft wood fibers and water that resembles thick, lumpy oatmeal.
4. They squeeze the wet sheet to press out additional water.
5. The water drains away through the holes while the fibers stay and tangle together into a sheet.
6. It is mixed with water and broken down into pulp again.