



RE-NEWS

A Publication of the City of St. Louis
Recycling Program



February 2006

Paper and the Presidents: Research Activity

On February 20, Presidents' Day, we celebrate the lives of George Washington and Abraham Lincoln. Washington, who lived from 1732 to 1799 and Lincoln, who lived from 1809 to 1865, had very different experiences from us.

First of all, paper was expensive and difficult to make in the 18th and 19th centuries. Secondly, it was made from very different materials. Much of the paper produced during those ages was made from ground-up cotton fibers - from rags and old clothing!

Today's government officials consume hundreds of tons of paper every day. In honor of Presidents' day, let's take a glimpse into the lives of our great forefathers. Were they wasteful with their paper? Where did their paper come from? Did they recycle?

Have your students research the history of papermaking. Or, for a group activity, visit the following websites and print their contents for in-class reading and discussion.

Paper Museum at Georgia Tech: The Papermaker and the Process of Papermaking - http://www.ipst.edu/amp/collection/museum_prmaker.htm

Paper Museum at Georgia Tech: Papermaking moves to the United States - http://www.ipst.edu/amp/collection/museum_pm_usa.htm

Paperonline: The History of Papermaking - http://www.paperonline.org/history/history_frame.html

Do The Math!

Recycling paper saves trees, landfill space, electricity, and water. It also reduces air pollution.

Use the following information to figure out the impact you would have on the earth in one year if your school recycled 3,500 pounds of paper per month. (This is the same as one Paper Retriever recycling bin being filled about 3/4 full each month.)

- One ton = 2,000 pounds.
- One ton of paper saves: 17 trees, 3 cubic yards of landfill space, 4102 kilowatt-hours of electricity, 60 pounds of air pollution, and 7000 gallons of water.

*Answer (formula example): $12 * (3,500 / 2,000) * 17 = 357$ (number of trees saved)*

Win Money for your School! - 2006 Great Paper Drive -

Abitibi Paper Retriever's annual paper recycling contest will be held from March 1 to April 30, 2006. YOUR school could win! Here's how:

There are three categories:

- One-bin accounts
- Two- to three-bin accounts
- Four- or more-bin accounts

The one-bin category will be broken into four sub-categories:

- Public schools
- Private schools
- Places of worship
- Other non-profit organizations

The schools or youth groups in each category or subcategory who recycle the most tons of paper during the months of March and April will receive cash prizes!

One-bin subcategories:

- 1st place - \$500
- 2nd place - \$300
- 3rd place - \$200

Two to three-bin category:

- 1st place - \$1000
- 2nd place - \$800
- 3rd place - \$600

Four or more-bin category:

- 1st place - \$2000
- 2nd place - \$1500
- 3rd place - \$1100

Visit www.PaperRetriever.com for more details!

(There will also be a special sweepstakes for your school's recycling coordinator!)

Printed on Recycled Paper!



Make Your Own Recycled Paper Valentines!

Making recycled paper is easy - all you need is a blender, a piece of old window screen, a sponge, a bucket, and used paper!

For this Valentine's Day activity, you may also want to bring in open-topped cookie cutters in the shape of hearts.

One valentine, approximately 5 inches across, should require two sheets of used paper. Have students select one colored sheet and one white sheet, and begin ripping them into pieces no larger than 1" by 1". (Note: if students want multiple colors in their valentines, they can take half-sheets of two different colored papers.)

You can explain, while your students work, that this is the first step in the commercial paper recycling process. Paper is first "pulped".

One by one, supervise your students while they mix their ripped paper fragments with one cup of water in the blender. For a flecked appearance in your final product, blend only for a short while. For a smooth, solid color, blend longer.

This same process, you can explain, takes place on the commercial level. Paper pulp is mixed with water and ground in vats as large as your classroom!

When your paper pulp has been blended to the color and consistency desired, you can pour it over the screen. Make sure there is a bucket underneath to collect the water as it drains off!

To create custom-shaped valentines with your recycled paper, place a cookie cutter on the screen before you pour. Your pulp will remain in the shape of the cookie cutter.

Commercial paper recycling plants pour their paper pulp over large, continuous screens. It is pressed through rollers and dried under heaters.

To remove the bulk of the moisture from their valentines, students can dab them gently with a sponge. Simply flip the valentine onto a used sheet of paper to finish drying. By the end of the day, your valentine should be ready for decorating!

Perhaps you would like to follow this activity by watching a fun video about the commercial paper recycling process. Simply contact the Refuse Division's Recycling Program at recycle@stlouis.missouri.org, or 353-7176 to borrow a video from our lending library.

Happy Valentine's Day from your friends at the Refuse Division!

Book Feature: Mighty Tree

Trees are a crucial natural resource. After your students have discussed paper and all its applications, it can be fun to introduce them to the many other ways that trees can help us.

Dick Gackenbach's "Mighty Tree," suitable for ages 4 though 8, is a simple, joyful story about three trees which sprouted together from seeds. It follows the lives of each tree, to their fates at maturity. The first tree, cut to make paper products, brings joy to many. So does the second tree, which is carried to a city and decorated for Christmas. The third tree, however, remains in the forest, providing much-needed homes for wildlife.

This diverse view of the purpose of trees is an excellent lead-in to a discussion of our daily waste habits. After reading this book, you can encourage your students to think carefully about the resources they use each day. Thinking about each tree's purpose, ask them: do we want to use ALL trees for paper? What happens if we use more paper than we need?

We can all take responsibility for our waste. We can also help our students by raising their level of environmental awareness and fostering their care for the natural world. To view the many other books in our lending library, visit <http://stlouis.missouri.org/citygov/recycle/recyclibrary.htm>.

Reader Submissions Welcome

The Recycling Program invites you to submit material for this monthly newsletter. Would you like to share your activities, lesson plans, "how to" tips, or something else related to waste management education? Please, e-mail us at recycle@stlouis.missouri.org. We look forward to hearing from you.

Do you know any educators, home-schoolers, or youth group leaders who would like to receive RE-NEWS from the City of St. Louis Recycling Program? Tell them to contact us at recycle@stlouis.missouri.org, or 353-7176, and we will add them to the e-mail list for this free publication.

A note: We currently distribute RE-NEWS in electronic format, to conserve our natural resources and our budget.

Contact the City of St. Louis Refuse Division's Recycling Program:

<http://stlouis.missouri.org/citygov/refuse>
e-mail: recycle@stlouis.missouri.org
phone: 353-7176 (direct dial) or 353-8877 (switchboard)