



# 3R Review

Summer 2005

Reduce ♻️ Reuse ♻️ Recycle ♻️  
*Naturally!*

Saint Louis  
**COUNTY**  
**HEALTH**

## LIFECYCLE OF PAPER: OH WHERE, OH WHERE DOES THAT PAPER GO?

**W**e all know that recycling paper saves trees. But did you know that it also saves money, conserves energy, decreases landfill waste and reduces greenhouse gas emissions?

You can do all this and more by recycling paper...and we're not just talking about newspapers. In fact, many different types of paper can be recycled, including envelopes, magazines, junk mail and even gift cards. How can all these different papers be recycled, and what do they become?

You start the process. The life cycle of recycled paper begins when you collect paper in your recycling bin at home, office or school. A hauler then delivers the paper to a processor. At the processor, the paper may be sorted into different grades, such as all newsprint or all white office paper, depending on the end market. Or some processors bale all types of paper together to sell as mixed grade. After baling, the next step is the converting plant where it's made into a wide variety of products, including paper. (See p. 2 for a listing of products).

### Old Paper Into New Paper

At the mill, the paper is loaded onto conveyor belts leading to a large vat, known as a pulper. The paper is mixed with water and chemicals, using heat to further break it down into individual cellulose fibers. The resulting mushy mixture is called "slurry"...much like a giant paper milkshake!

The paper slurry is then cleaned and screened to remove contaminants such as plastic, glue and staples. Ink particles are removed by a "flotation" process in which chemicals are pumped into the slurry to loosen the ink from the pulp. That ink sticks to injected air bubbles and floats to the top. The resulting foam is scooped from the top of the mixture, leaving behind only clean pulp.

Depending on its end use, the pulp may be color-stripped or bleached. Finally, the clean pulp is pressed between metal screens to remove the liquid and form new paper. The paper is further dried as it goes through giant metal rollers. From there, it is ready to be shipped to the printer.

### Start to Make a Difference

We can start this process by taking the first step: Recycling our paper. In 2003, only 50% of our paper nationwide was recycled. (That is 50 million tons of paper.) That leaves a lot of room for improvement!

Let's start by taking advantage of the recycling opportunities in our area such as recycling centers and curbside recycling. Visit [www.stlouisco.com/doh](http://www.stlouisco.com/doh) for a list of local paper recycling outlets. Or, help local schools and churches earn cash by dropping off your paper at the green and yellow Paper Retriever bins located throughout the region.

### Did you know...

- Recycling paper uses 60% less energy than manufacturing paper from virgin timber.
- Each person in the U.S. consumes roughly 675 pounds of paper per year.
- If everyone in Saint Louis County recycled paper for a year, that would save more than 4 million trees!! And that's just for one year!! Think of the impact if we recycled and encouraged our kids to recycle throughout their whole life...Just think of the resources we'd save from one generation to the next!!

Sources: Environmental Protection Agency, Temperate Forest Foundation, Paper & Paperboard Packaging Environmental Council

# THE SECOND TIME AROUND

As you read about the second life of paper and cans, you see that recycling adds value to materials! In addition to saving resources, recycling:



- Creates jobs (the National Recycling Coalition states the recycling and reuse industry supports 1.1 million jobs nationwide with a 37 billion dollar annual payroll);
- Cuts down on litter;
- Contributes to pollution reduction; and
- Reduces landfill usage.



## Paper Lives Again!

On page 1 you read how paper you tossed in the recycling bin is given a “new life”. But as what? Where does the recycled-content paper end up? Newsprint is a common answer, but look below...you might be surprised!

### In offices and schools

- Notebook paper
- Postage stamps
- Mailing tubes
- Telephone directories
- Stickers

### In the kitchen

- Pizza boxes, egg cartons
- Labels for canned and bottled goods
- Ice cream containers

### Elsewhere in the home

- Vacuum cleaner bags
- Window shades
- Flooring
- Bandages
- Insulation
- Lamp shades
- Luggage
- Animal bedding
- Board games, puzzles, playing cards
- Wrapping paper

## Cans Into Bikes? You Bet!

Have you ever enjoyed a bicycle ride on a warm summer day? Did you know that the frame of your bicycle could have been made from recycled tomato cans? It's true!

In the last newsletter, you read about the lifecycle of a can so you know that recycled aluminum and steel cans can be made into many new common and unusual items. About 50% of the aluminum in beverage cans comes from used aluminum cans. Recycled steel cans are found in paperclips, scissors, furniture, appliances, nails, and even in automobiles.

Together, we CAN make a big difference. If you want to help a school or church along the way, look for a blue Recycle Challenge bin. Groups earn money based on how many pounds of aluminum they collect. To find the Recycle Challenge bin nearest you, visit our Web site at [www.stlouisco.com/doh](http://www.stlouisco.com/doh).

# THAT NASTY STUFF CAN COME INTO MY HOME?!

**M**any environmentally conscious people continue to be concerned about the use, and more importantly the improper use, of pesticides. EPA studies show that pesticides are easily tracked indoors and exist in the carpet and flooring for years.

Homeowners apply three times more pesticides per acre to their lawns than farmers apply to agricultural crops. U.S. homeowners annually apply 90 million pounds of these types of pesticides to gardens and lawns where children frequently play. This increases the pollutant concentration in stormwater runoff to our streams, impacting wildlife and our own water supply.

Before you apply chemical products, consider natural alternatives to chemical products. For instance, instead of killing weeds with pesticides, spray a mix of 5 percent household white vinegar and 95 percent water on leaves of young weeds (up to 2 weeks old). For more natural recipes, visit [www.stlouisco.com/doh/environ/recycler/Natural\\_alternatives.pdf](http://www.stlouisco.com/doh/environ/recycler/Natural_alternatives.pdf) to keep the bugs and weeds away and the Earth healthy!



# PAINT THE TOWN “GREEN”

Each year, Saint Louis County residents drop off thousands of pounds of household chemicals at collection events in the area. Guess what “chemicals” are most commonly brought in to these events...Pesticides? Antifreeze? Pool chemicals?

The answer is overwhelmingly – paint! Leftover paint makes up about 66,000 pounds of the 130,000 pounds of material collected on average at each event. That amount of paint is enough to paint more than 4,500 average sized living rooms!

Although disposing of leftover paint and other materials at the chemical collections is “free” to County residents, the cost of disposing of the chemicals at the collection events is very expensive. The best way to manage leftover household chemicals is to not create them in the first place...and save yourself a trip to the collection event! Here are some suggestions:

## Think “Donation” Before “Dropoff”

There are lots of creative ways to use leftovers. For example, you can mix leftover paints together to use as a base coat. Usable paint and varnish may be donated to local charities, theatrical groups or community betterment associations.

## Measure Twice, Buy Once!

The next time you get ready to paint a room, spend a little more time measuring the walls first and you’ll probably find you need to buy less paint than you might have guessed. See the sidebar on calculating your paint needs to reduce waste and possibly save money.

## Many Locations Accept Used Motor Oil

Used motor oil is another item many people bring to these collections. In fact, about 1,500 gallons is collected at each event, enough for 1,500 oil changes! Remember, you can bring this spent motor oil to many local oil change shops in the area any time of the year. Check the Yellow Pages and call first to inquire about any fees or restrictions.

With a little planning and resourcefulness, you can spend less, reduce leftovers, and maybe even save yourself a trip to the household chemical collection events!



## How much paint do you need?

1. Determine the total square feet of each area to be painted:

A. For each wall, multiply the height by the width:  
Height \_\_\_\_\_ ft. x width \_\_\_\_\_ ft. = sq. ft.

B. For each ceiling, multiply the length by the width:  
Length \_\_\_\_\_ ft. x width \_\_\_\_\_ ft. = sq. ft.

2. Add the total sq. ft. for all walls and ceilings to be painted:

A + B = \_\_\_\_\_ total sq. ft.

3. To determine the number of gallons of paint needed for one coat, divide the total sq. ft. by 400:

Total sq. ft. \_\_\_\_\_ / 400 = \_\_\_\_\_ gallons of paint.

## GET READY TO “THINK INSIDE THE BIN”

In an effort to encourage businesses to recycle, the Saint Louis County Health Department will soon announce a new program – Think Inside the Bin.

This program will team businesses with recycling collection efforts at local schools. Most schools in the County already have the green and yellow Paper Retriever® bins on their parking lots and many also have blue Recycle Challenge® bins for cans. The schools can earn money every month based on the volume of material generated. Businesses can help increase earnings for the school they support by regularly adding their own paper and cans to the bins.

Businesses see the benefit in helping schools, lowering their hauling fees and just generally “doing the right thing.”

If your company or place of work is interested in finding out more about this program, please contact Mary Patterson at 314-615-6878. Stay tuned for more details of Think Inside the Bin.

# KIDS' KORNER: IN SEARCH OF NATURE!

**You don't have to think too hard to find ways to conserve resources.  
But you might have to put on your thinking cap to find these hidden words! Good luck!!**

R	E	C	Y	C	L	E	P	C	E	L
E	C	O	M	P	O	S	T	O	A	P
S	D	F	C	X	Z	L	R	N	R	O
O	M	U	L	C	H	H	E	S	T	L
U	Q	W	E	R	T	Y	E	E	H	L
R	E	U	S	E	P	D	S	R	W	U
C	L	E	A	N	A	I	R	V	A	T
E	N	A	T	U	R	A	L	E	S	I
S	L	A	N	D	F	I	L	L	T	O
W	A	T	E	R	D	G	H	E	E	N
F	O	S	S	I	L	F	U	E	L	S

- |                 |               |
|-----------------|---------------|
| 1. POLLUTION    | 9. WATER      |
| 2. COMPOST      | 10. RECYCLE   |
| 3. REUSE        | 11. WASTE     |
| 4. CONSERVE     | 12. CLEAN AIR |
| 5. LANDFILL     | 13. TREES     |
| 6. FOSSIL FUELS | 14. NATURAL   |
| 7. RESOURCES    | 15. MULCH     |
| 8. EARTH        |               |

## INFORMATION BOX

For information on recycling, upcoming events and proper waste management, visit our Web site at:  
**[www.stlouisco.com/doh/envIRON/recycler/waste\\_mg.html](http://www.stlouisco.com/doh/envIRON/recycler/waste_mg.html)**

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