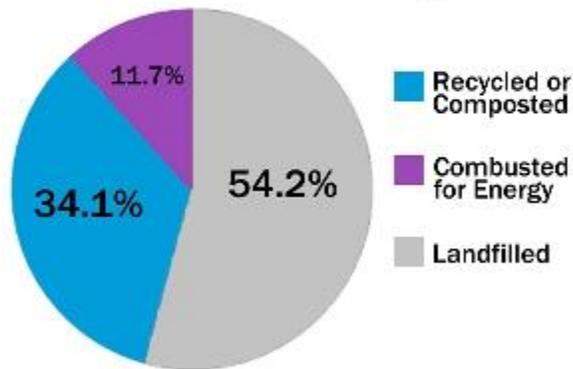


# Recycling Basics

## What Happens to Stuff We Throw Away\*?



\*Based on the 2010 Municipal Solid Waste Characterization Report

Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. Recycling can benefit your community and the environment.

### Benefits of Recycling

- Reduces the amount of waste sent to landfills and incinerators;
- Conserves natural resources such as timber, water, and minerals;
- Prevents pollution caused by reducing the need to collect new raw materials;
- Saves energy;
- Reduces greenhouse gas emissions that contribute to global climate change;
- Helps sustain the environment for future generations;
- Helps create new well-paying jobs in the recycling and manufacturing industries in the United States.

# How Do I Recycle...Common Recyclables

## Paper

Paper makes up nearly 30 percent of all wastes Americans throw away each year, more than any other material. Americans recycled about 63 percent of the paper they used in 2010. This recovered paper is used to make new paper products, saving trees and other natural resources. Most community or office recycling programs accept paper and paper products. Check what your community or office program accepts before you put it in the bin. When you go shopping, look for products that are made from recycled paper. [Learn more about paper recycling.](#)

## Batteries

Some batteries contain heavy metals such as mercury, lead, cadmium, and nickel; therefore, many communities do not allow them to be thrown away with your regular trash. Recycling is always the best option for disposing of used batteries.

- **Lead-Acid Car Batteries** can be returned to almost any store that sells car batteries. The lead and plastics from the batteries can then be recycled and used to manufacture new products. About 96 percent of lead-acid car batteries are recycled.
- **Dry-Cell Batteries** are used in a variety of electronics and include alkaline and carbon zinc (9-volt, D, C, AA, AAA), mercuric-oxide (button, some cylindrical and rectangular), silver-oxide and zinc-air (button), and lithium (9-volt, C, AA, coin, button, rechargeable) batteries. Look for in-store recycling bins or community collection events to dispose of these batteries.

[Learn more about battery recycling.](#)

## Plastics

Americans generated 31 million tons of plastics in 2010, about 12 percent of the waste stream. Only eight percent of plastics were recycled in 2010. Some types of plastics are recycled much more than others. Most community recycling programs accept some, but not all, types of plastics. Look for products made from recycled plastic materials. [Learn more about plastic recycling.](#)

**What do the symbols mean on the bottom of plastic bottles and containers?** These symbols were created by plastic manufacturers to help people identify the kind of plastic resin used to make the container. This can help you determine if the container can be accepted by your local recycling program. The resin number is contained in a triangle, which looks very similar to the recycling symbol, but this does not necessarily mean it can be collected for recycling in your community.

SPI Resin Identification Code	1	2	3	4	5	6	7
Type of Resin Content	PET	HDPE	Vinyl	LDPE	PP	PS	OTHER

<ul style="list-style-type: none"> <li>• PET - Polyethylene Terephthalate</li> <li>• HDPE - High-density Polyethylene</li> </ul>	<ul style="list-style-type: none"> <li>• LDPE - Low-density Polyethylene</li> <li>• PP - Polypropylene</li> </ul>	<ul style="list-style-type: none"> <li>• PS - Polystyrene</li> <li>• Other - Mixed Plastics</li> </ul>
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### Glass

Glass, especially glass food and beverage containers, can be recycled over and over again. Americans generated 11.5 million tons of glass in 2010, about 27 percent of which was recovered for recycling. Making new glass from recycled glass is typically cheaper than using raw materials. Most curbside community recycling programs accept different glass colors and types mixed together, and then glass is sorted at the recovery facility. Check with your local program to see if you need to separate your glass or if it can be mixed together. [Learn more about glass recycling.](#)

### Used Oil

Never dump your used motor oil down the drain — the used oil from one oil change can contaminate one million gallons of fresh water. By recycling your used oil you not only help keep our water supply clean, but help reduce American dependence on foreign oil. It takes 42 gallons of crude oil, but only one gallon of used oil, to produce 2.5 quarts of new motor oil. Many garages and auto-supply stores that sell motor oil also accept oil for recycling. [Learn more about recycling used oil.](#) Find a motor oil recycler near you: [Earth911](#) EXIT Disclaimer.

### Household Hazardous Waste

Leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients are considered to be household hazardous waste (HHW). Products such as paints, cleaners, oils, batteries, and pesticides that contain potentially hazardous ingredients require special care when you dispose of them. HHW may be dangerous to people or bad for the environment if poured down the drain, dumped on the ground, or thrown out with regular trash.

What you can do:

- Try to reduce your purchases of these products and look for alternative, non-hazardous products.
- When you do need to dispose of these products, look for special collection events in your community or permanent collection centers. Sometimes businesses that sell these products will also accept them for recycling.
- If you have to dispose of HHW, first check with your local waste management agency to see what rules apply in your community.

## Tires

Disease-carrying pests such as rodents may live in tire piles. Tire piles can also catch on fire. Most garages are required to accept and recycle your used tires when you have new ones installed. You may be able to return used tires to either a tire retailer or a local recycling facility that accepts tires. Some communities will hold collection events for used tires. [Learn more about tire recycling in your state.](#)

## Learn More About Recycling These Items

### [Compact Fluorescent Light Bulbs \(CFLs\)](#)

### [Used Electronics](#)

### [Food Waste Organic composting](#)

### [Other Common Recyclable Materials](#) Metals

Some of the common products you can find that can be made with recycled content include:

- Aluminum cans
- Car bumpers
- Carpeting
- Cereal boxes
- Comic books
- Egg cartons
- Glass containers
- Laundry detergent bottles
- Motor oil
- Nails
- Newspapers
- Paper towels
- Steel products
- Trash bags

# What Do Recycled Items Become?

*by Melissa Lewis, Demand Media*



Old electronics are mined for valuable metals like copper and gold, which are melted down and turned into new components.

## Paper and Cardboard

After a [recycling](#) plant separates paper by type, it's transported to a paper mill that shreds it and mixes the shreds into a pulp to make new products (see References 2). Your daily newspapers might become part of the next edition, but they could also come back as egg or berry cartons, paper plates, construction paper, a phone book --- or even kitty litter or Sheetrock. Magazines usually get a second life as newspapers or paperboard packaging. Recycled paperboard is processed into more paperboard, paper towel rolls and even paper backing for roof shingles. The cardboard boxes you recycle reincarnate as paper bags, paperboard packaging and new cardboard boxes. Toilet paper, [facial tissue](#), paper towels and napkins are often the product of recycled notebook and computer paper. (See References 1)

## Aluminum and Tin Cans

Processing plants shred aluminum cans and melt the shreds to make new aluminum cans as well as aluminum foil (see References 2). Since this process doesn't reduce the quality of aluminum, it's possible to recycle aluminum indefinitely, and with a quick turnaround. The can you tossed in the recycling bin 60 days ago might already be sitting on a store shelf in its new incarnation. Other cans, made from tin-coated steel, go through a slightly different process. In order to recycle "tin" cans, processing plants separate the steel from the tin so the steel can be used to make bicycle and car parts, steel beams and rebar, [household](#) appliances, or new cans. (See References 1)

## Glass

Like aluminum, glass can be recycled indefinitely. Manufacturing recycled glass into new bottles or jars uses fewer resources than starting from scratch (see References 1). Processing facilities usually melt glass in order to mold new containers, but the jam jar you sent to the curb might also be crushed into cullet, or small shards. Because cullet has smooth edges, it is ideal for making bricks, paved surfaces and sports turf (see References 2).

## Plastic

Waste facilities separate plastics by resin type and send them off to the recycling plant to be shredded and melted into pellets. Manufacturing companies use the different types of pellets to make new plastic products (see References 2). [Laundry detergent](#) bottles might get a new lease on life as buckets, toys or stadium seats, whereas milk and juice containers might become plastic lumber, children's outdoor play sets, or new milk and juice jugs. Your carpet, polar fleece blanket or winter jacket insulation might contain the materials from a recycled soda or water bottle. (See References 1).

## **Closing the Recycling Loop**

Your recycling efforts create a more substantial impact when they come full circle. To complete the recycling life cycle -- to "close the loop" -- purchase products made with recycled content, especially those that can be recycled again (see References 3).