



RECYCLING

“Reduce, reuse, recycle.”

Help preserve our world for future generations.



RECYCLING PROCESS

Recycling is a series of activities that includes *collecting* recyclable materials that would otherwise be considered waste, *sorting and processing* recyclables into raw materials such as fibers, and *manufacturing* raw materials into new products. This creates a circle or loop that ensures the overall success and value of recycling.

Step 1. Collection and Processing

Collecting recyclables varies from community to community, but there are four primary methods: curbside, drop-off centers, buy-back centers, and deposit/refund programs. Recyclables are sent to a materials recovery facility to be sorted and prepared into marketable commodities for manufacturing. Recyclables are bought and sold just like any other commodity, and prices for the materials change and fluctuate with the market.

Step 2. Manufacturing

Once cleaned and separated, the recyclables are ready to undergo the second part of the recycling loop. More and more of today's products are being manufactured with total or partial recycled content. Common household items that contain recycled materials include newspapers and paper towels; aluminum, plastic, and glass soft drink containers; steel cans; and plastic laundry detergent bottles. Recycled materials also are used in innovative applications such as recovered glass in roadway asphalt (“glassphalt”) or recovered plastic in carpeting, park benches, and pedestrian bridges.

Step 3. Purchasing Recycled Products

Purchasing recycled products completes the recycling loop. By "buying recycled," governments, businesses, and individual consumers play an important role in making the recycling process a success. As consumers demand more environmentally sound products, manufacturers will continue to meet that demand by producing high-quality recycled products.

RECYCLING FACTS AND FIGURES 2007

from <http://www.epa.gov/msw/recycle.htm#Figures>

In 1999, recycling and composting activities prevented about 64 million tons of material from ending up in landfills and incinerators. Today, this country recycles 32% of its waste, a rate that has almost doubled during the past 15 years.

While recycling has grown in general, recycling of specific materials has grown even more drastically: 50 % of all paper (up from 42% two years ago), 34% of all plastic soft drink bottles, 45% of all aluminum beer and soft drink cans, 63% percent of all steel packaging (up from 57% two years ago), and 67% (up from 52 % two years ago) of all major appliances are now recycled.

Twenty years ago, only one curbside recycling program existed in the United States, which collected several materials at the curb. By 2005, almost 9,000 curbside programs had sprouted up across the nation. As of 2005, about 500 materials recovery facilities had been established to process the collected materials.

HOW YOU CAN HELP

Recycle at home. Find out if there is a recycling program in your community. If so, participate in the program by separating and putting out your recyclables for curbside pickup or taking them to your local drop-off or buy-back center.

Shop smarter. Use products in containers that can be recycled in your community and items that can be repaired or reused. Also, support recycling markets by buying and using products made from recycled materials.

RECYCLING PAPER, PLASTIC, METAL, AND GLASS

PAPER

Most paper can be recycled and made into new paper products, which helps save our forests. Recycling one ton of newspapers conserves the equivalent of 19 pine trees. Recycled paper production reduces related air pollution by 95% and uses 30-55% less energy.

PLASTIC

The two most commonly recycled plastics are PETE or PET (polyethylene terephthalate) and HDPE (high density polyethylene). Many plastic products like bottles and containers are marked with the recycling code these days to facilitate sorting by their particular resin type.

Five recycled 2-liter PETE bottles make enough fiberfill to stuff a ski jacket, and 35 2-liter PETE bottles make enough for a sleeping bag.



PETE

(Polyethylene Terephthalate)
bottles for soft drinks,
soy sauce, and cooking oil



HDPE

High Density Polyethylene
pails; containers for liquid
detergent, milk, and fruit juice



V

Polyvinyl Chloride
PVC pipes; bottles
for shampoo and water



LDPE

Low Density Polyethylene
shopping bags; housewares



PP

Polypropylene
household storage containers



PS

Polystyrene
Styrofoam containers
like cups and food trays



OTHER

less commonly used plastics, such as bottles for ketchup and syrup

METAL

Metals are made from minerals that are non-renewable. A ton of steel cans recycled saves 1.36 tons of iron ore. Recycling saves 74% of the energy needed to make new steel from iron ore and 95% of the energy needed to produce new aluminum from bauxite ore.

GLASS

Glass is one of the easiest and best materials to recycle. It recycles completely, meaning one kilogram of old glass can be turned into one kilogram of new glass, and it can be recycled repeatedly without loss of quality to the new product. A ton of glass recycled saves the equivalent of 34 liters of fuel oil. In addition, recycled glass requires 30% less energy than glass manufactured from silica.