

The Environmental Four Rs for the Home: Reduce, Reuse, Recycle, Rebuy

The Four Rs

- **REDUCE**—cut your use of energy, water, materials, and toxic products.
- **REUSE**—use it again and again, until it can't be used anymore.
- **RECYCLE**—make new products or packaging from used materials.
- **REBUY**—consume products made from recycled materials.

Apply the Four Rs to Daily Household Practices

Shopping: buy less and buy reusable

- Buy long-lasting, repairable, and reusable products; avoid single-use disposable items such as plastic tableware, paper plates, and throw-away razors.
- Repair used items rather than buy new ones.
- Share stuff such as magazines with friends, family, senior centers, and hospitals.
- Rent infrequently used tools.
- Use and reuse gift bags, scarves, handkerchiefs, towels, comics, and ribbons and bows to wrap and decorate gifts.

- Donate and sell used goods; shop at garage sales and resale shops.
- Take your own cloth, paper, or plastic shopping bags to the store.
- Line wastebaskets with grocery bags.
- Buy products with less packaging or buy packaging that can be reused or recycled; buy bulk quantities if you know you will use it all.

Packaging makes up one-third of the average household's garbage and accounts for approximately 13 percent of your grocery dollar.

- Select rechargeable batteries, refillable ink pens, and cloth dish towels and napkins.

Shopping: buy recycled and demand recyclable materials

- Glass, steel, and aluminum bottles, jars, or cans have 20 percent or more recycled content.
- Paperboard boxes (such as cereal and shoe boxes) are made from almost 100 percent recycled materials.
- Most newspapers in Texas are printed on recycled-content newsprint. Contact your newspaper or TNRCC at 512/239-3100 to learn

Recycling your daily newspaper subscription for a year provides as much pulp for paper manufacturing as two-thirds of an acre of commercial forest and saves about 1/2 cubic yard of landfill space.

how much recycled material is used in your newspaper.

- Avoid nonrecyclable items like foam containers, waxed milk and juice cartons, and single-serving juice boxes.

Gardening

- Don't bag it! Leave your grass clippings on the lawn.
- Use leaves or wood chips for mulch around trees and shrubs and in gardens.
- Compost food scraps, leaves, and other organic materials.
- For an alternative, consider the worm composting method to break down food scraps and nonrecyclable paper.
- On hot days, water your lawns in the early morning or in the evening.
- Xeriscape: use water-saving native plants that don't need as much fertilizer.

These practices reduce garbage, conserve water, protect and build up the soil, and reduce runoff water pollution. Learn about worm composting, Xeriscaping, and other conservation practices in *A Green Guide to Yard Care* (GI-28). Order a free copy by calling the TNRCC at 512/239-0028, or view it at the TNRCC Web site, <http://www.tnrcc.state.tx.us/exec/oppr/compost/backyard.html>.

Paying bills, writing letters

- Select recycled-content writing paper and envelopes; buy refillable pens and pencils.
- Photocopy on both sides of the paper.
- Remove your address from direct mail marketers' lists for five years by registering with the Mail Preference Service of the Direct Marketing Association (DMA). Use the form on the DMA's Web site (<http://www.the-dma.org/consass5/mps-sht.html>) or send a note with your name (giving all variations of your name by which you receive mail), home address, and signature to Mail Preference Service, Direct Marketing Association, P.O. Box 9008, Farmingdale, New York 11735-9008.

A ton of material recycled saves at least \$187 worth of electricity, petroleum, natural gas, and coal, even after accounting for the energy used to collect and transport the materials from a curbside recycling program. (Environmental Defense Fund)

- Call one of the following toll-free numbers to be removed from national mailing lists for unsolicited credit and insurance offers for two years: Equifax at 1-800-556-4711, Experian (formerly TRW) at 1-800-353-0809, or Trans Union at 1-800-680-7293. Not all companies use these services. Contact companies directly if they continue to send unwanted mail. Ask to be removed from their mailing lists.

Preparing meals and cleaning up

- Use cloth napkins and dish towels.
- Don't run the dishwasher unless it's full.
- Store food items in reusable containers.
- Wash out and reuse freezer bags and aluminum foil.
- Select reusable coffee filters.

Saving energy at home

- Turn off those lights and your television when not in use.
- Turn your thermostat up during the hours of the day when you are out.
- Replace incandescent light bulbs with energy-efficient fluorescent bulbs.
- Don't let energy go out the door (or window). Make sure your rooms are well insulated.

Doing laundry

- Buy water and energy-efficient appliances.
- Clean your dryer's lint trap after every load.
- Give your dryer a vacation; hang your clothes to dry.

- Use a phosphate-free detergent.
- Turn down your water heater to 130 degrees, especially in the hot summer months.
- If you have a baby, use cloth diapers instead of disposables.

Bathing

- Take shorter showers.
- Install low-flow showerheads.
- Turn off the faucet when brushing your teeth.
- Make your shower do double-duty. Hang clothes in the bathroom while showering to "steam" wrinkles out.
- Install a toilet dam to reduce the amount of water you flush away.

Driving

- Consider walking or riding your bike.
- Keep your car tuned up and your tires properly inflated.
- Turn your motor off while idling in drive-through lines.
- Don't dump used oil down a storm drain.

Apply the Four Rs to Household Chemical Products

General usage tips

- Always use household chemical products only as directed on the label.
- If you use a toxic product, use the contents fully to minimize the remnants in the container.
- Where possible, safely store unused or waste portions of chemical

products until a hazardous waste collection program is conducted in your community.

- Empty containers should be recycled where possible.

General storage tips

- Keep products in their original containers, with original labels.
- Store in a cool, dry place.
- Regularly check containers, and if you find one leaking, place the leaky container inside another container and label it—for example, “leaking container of pesticide.”
- Read labels to make sure that incompatible chemicals are kept separated.
- Secure lids tightly.

Cleaners: storage and disposal tips

- For oven cleaners, toilet cleaners, disinfectants, laundry bleaches, mothballs, and ammonia-based cleaners, empty containers should be rinsed with water and then may be disposed of at your municipal landfill.
- The rinse water can be reused or poured down the drain with great quantities of water.
- Store unused products for your community’s home chemical collection day.

Call 1-800-CLEAN-UP to find a home chemical collection location near you.

Alternative cleaners: use with a little elbow grease

- General—mix $\frac{1}{2}$ cup of borax and $\frac{1}{4}$ cup of vinegar in 2 gallons of water.
- Surfaces—mix vinegar with salt and water.
- Dishes—add $\frac{1}{2}$ cup baking soda to mild dishwashing liquid to help cut grease.
- Glass—combine a quart of water with $\frac{1}{4}$ to $\frac{1}{2}$ cup of white vinegar and 1 to 2 tablespoons of lemon juice or rubbing alcohol; spray on surfaces and wipe clean with soft, lint-free cloth.
- Oven spots—scrub with a paste of baking soda, salt, and water.
- Oven—mix 2 tablespoons of liquid soap, 2 teaspoons of borax, and a quart of warm water; leave on the oven for 20 minutes, then scrub with fine steel wool; if the home-made mixture doesn’t work, use a nonchlorinated scouring powder.
- Mildew—scrub with baking soda or borax or with a paste of salt and lemon juice or white vinegar.
- Shower curtains—machine wash with $\frac{1}{2}$ cup soap and $\frac{1}{2}$ cup baking soda; add a cup of white vinegar to the rinse cycle.
- Upholstery, rug, and carpet spills—clean immediately with club soda.
- Upholstery, rug, and carpet—mix a quart of water, a teaspoon of mild liquid soap, a teaspoon of borax or TSP (trisodium phosphate), and a squeeze of lemon juice or a splash of vinegar; apply with a damp cloth or sponge and rub gently; wipe with a clean cloth and allow to dry.

- Toilet bowl—scrub with a solution of about a cup of borax in a gallon of water. Clean frequently with a solution of baking soda and water; sprinkle baking soda around the rim; scrub with toilet brush as needed.
- Tub and tile—combine 3 cups of baking soda and a cup of warm water and scrub into the grout; rinse well with water.
- Scouring powders—use baking soda, salt, or a nonchlorinated commercial scouring powder.

Alternative air fresheners

- Leave open boxes of baking soda in refrigerator, closets, and bathrooms.
- Saturate a cotton ball with pure vanilla; place on a saucer in refrigerator or car.
- Set out white vinegar in open dishes to destroy odors.
- Set out a potpourri in open dishes.
- Simmer cinnamon and cloves.

Alternative drain opener

- Pour $\frac{1}{4}$ cup of baking soda down the drain, followed by $\frac{1}{2}$ cup of white vinegar. Let sit for a few minutes, then pour a tea kettle of boiling water down the drain to flush.

Alternative furniture polish

- Unfinished wood—polish with mineral oil.
- Finished wood—clean with a mild vegetable oil soap. Combine 1 part lemon juice with 2 parts vegetable

or olive oil and polish with a clean, soft cloth.

Pesticides: use, storage, and disposal tips

- Improper application can harm you.
- Overuse of any product leaves excess amounts you don't want around yourself or your family.
- Triple rinse containers of pesticides, reuse the rinse water as you would the product, and place the container in the trash.

Alternative roach and ant control

- Caulk cracks; use screening or cement to close off all gaps around pipes and electric lines where they enter the house.
- Starve them; seal all food in jars with rubber rings or inner liners in the cap; rinse food completely off dishes that may stand out overnight; do not leave pet food out overnight.
- Sprinkle cracks and dark places with a boric acid formulation or chili powder to hinder entry.
- Set out dishes with equal amounts of oatmeal flour and plaster of Paris, or equal amounts of baking soda and powdered sugar, or equal amounts of borax and brown sugar. Keep out of reach of children and pets.
- Apply boiling water to ant mounds.

Alternative pest control products

- Instead of fungicides—do not over water; keep areas clean and dry.
- Instead of synthetic pesticides—consider botanical (naturally

derived) pesticides such as pyrethrum, rotenone, sabadilla, and nicotine, or insecticidal soap, which breaks down an insect's protective coating.

- Instead of flea collars and sprays—try an herbal collar or ointment (eucalyptus or rosemary) or brewers' yeast in your pet's diet.
- Instead of rat and mouse poison—remove food supply; use live traps.

Paints: storage and disposal tips

- Latex paint cans may be air dried and discarded in the trash.
- Recycle unused paint whenever possible, such as through a community collection program.
- Rust-retardant paints have no known substitute, so store these flammable, toxic paints for a community collection opportunity.
- Empty paint cans should be recycled where possible.

Alternative paints and finishes

- Enamel or oil-based paints—use latex or water-based paints wherever possible.
- Latex or water-based paints—consider limestone-based whitewash or casein-based paints or recycled-content paints.
- Stains and finishes—use latex paint or natural earth pigment finishes.

Automotive products: use and storage tips

- Do not pour toxic, flammable, and corrosive automotive wastes on the ground or down a storm sewer. Instead, recycle!
- Call your community solid waste services department or look in your telephone book to find a service station, reclamation center, or household hazardous waste collection program that accepts used oil and other auto wastes.

Contacts

- Recycling opportunities vary by community. Call your city solid waste, sanitation, or public works department to see what recycling services it provides.
- To get a list of recycling contacts in your county, call the TNRCC environmental assistance staff at 512/239-3100.
- Call 1-800-CLEAN-UP for automated information on recycling near you by entering your zip code, or visit the Web site at www.1800cleanup.org.
- Call TNRCC at 512/239-4747 for information on household hazardous waste collections in your area and on how to get a collection program started.

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