

GREEN
Earth



Living a Greener Life

Living a greener lifestyle doesn't have to mean making massive changes, but some tweaks to your routine and a few household upgrades can make a big difference for you and the environment.

HGTV recommends some tips that can serve as a great place to start:

RECYCLE BATHROOM WATER

Devices are available that can allow you to reuse sink water for flushing your toilet. Another option: Keep a bucket by the shower or tub and use it to catch the cold water that comes out before the water hits an optimal temperature. That excess water can then be used outside to water plants and gardens.

COMPOST

A compost bin can be used to turn food and lawn wastes into rich, extremely useful mulch. It can be an excellent way to reduce trash production, and by the next year, you can have rich compost ready for use by the spring planting period.

BUY GREEN POWER

It costs a bit more, but when available, green power can allow you to put your money where your mouth is. Most utilities charge less than \$5 per month extra to purchase power from a renewable source. On a larger scale, the move also can show utility executives and government officials that citizens are

invested and interested in seeing additional investment in renewable energy.

FILL UP THE WASHING MACHINE, DISHWASHER

This slight change to your cleaning routine can go a long way toward saving water. Make sure to run the dishwasher and clothes washers only when they're full. Both devices are huge energy and water users, so make sure to only run them with full loads (or adjust the water setting for smaller loads) whenever possible. Hand-washing dishes also can be very wasteful, so load those dishes directly into an energy-efficient dishwasher instead. Then, run it when it is completely full.

DRIVE GREENER

No, we're not talking about getting a new car (though an energy efficient model can be a good investment), but some simple changes to your driving habits can improve fuel efficiency by up to 25 percent. Drive at or near the speed limit, keep your tires inflated, make sure oil and air filters are clean, and step on the gas and the brakes carefully. Driving at a normal rate, and braking at a safe speed, can save fuel.



Benefits of Recycling

Recycling our paper, plastic and other products obviously benefits the environment, but it's important to look at the tangible data to see just what kind of difference it really makes.

CARDBOARD

Recycling one ton of cardboard saves 390 kWh of energy, 1.1 barrels (46 gallons) of oil and 6.6 million BTUs of energy. When recycling cardboard, prepare by removing all other materials in the box, such as plastic wrap, polystyrene peanuts and other packing materials. Then, break down cardboard boxes to save storage space. Try to keep cardboard dry and free from food waste.

Cardboard can get wet and still be recycled, but remember it is more difficult to carry due to the added weight of the water.

GLASS

Recycling one ton of glass saves 42 kWh of energy, 0.12 barrels (5 gallons) of oil, 714,286 BTUs of energy, 2 cubic yards of landfill space and the release of 7.5 pounds of air pollutants. Prepare glass containers for recycling by rinsing out with water. Labels on glass containers do not have to be removed because they are removed during the crushing process and/or burned off during the melting process. Avoid breaking the glass and mixing broken colors together, as this may make the glass unacceptable for recycling.



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PAPER

Recycling one ton of paper saves 4,100 kWh of energy, 9 barrels (380 gallons) of oil, 54 million BTUs of energy, 3.3 cubic yards of landfill space, the release of 60 pounds of air pollutants, 7,000 gallons of water and 17 trees. Recyclable paper includes magazines and catalogs, telephone books, direct mail, brochures, pamphlets and booklets, in

addition to cereal, cake, chip and cracker boxes. Be sure to remove the liner and all food from the box, flatten the box and place flattened box in a paper sack with your junk mail, mixed paper, magazines and catalogs. Non-recyclable paper includes tissue and waxed and carbon paper.

PLASTIC

Recycling one ton of plastic

saves 5,774 kWh energy, 16.3 barrels (685 gallons) of oil, 98 million BTUs of energy, 30 cubic yards of landfill space. Remove plastic tops from the plastic containers being recycled and rinse containers with water. Crushing containers will help save space while storing them.

ALUMINUM

Recycling one ton of alumi-

num saves 14,000 kWh of energy, 39.6 barrels (1,663 gallons) of oil, 237.6 million BTUs of energy and 10 cubic yards of landfill space.

When preparing to recycle aluminum, Waste Management recommends crushing the cans to save space and washing out the cans to eliminate odor and the chance it might attract bugs.

Reuse, Repurpose, Epicycle

Data shows that Americans can be among the most wasteful people on the planet, buying new things while tossing the old higher and higher into landfills.

One way to stop the cycle: Give an item a second (or third, or fourth) life by reusing or repurposing it.

HIT UP THE LOCAL LIBRARY OR USED BOOK STORE

Most people love to read, but what about after you've finished that dog-eared paperback or hardback? If you don't like to keep them piling up on a bookshelf, donate them to your local library, or sell them to your local bookstore. On the other side of that coin, if you're looking for something new to read, take a chance on a used edition. It gives that book a second use and is usually quite a bit cheaper than picking up a new copy. Local libraries are also excellent resources for reading material, and most make an effort to stock both new hits and old classics. Your tax dollars typically pay for that library, so why not get your money's worth?

THRIFT STORES AND YARD SALES

As for clothes and other household items, before heading to the big box or department store, check out thrift stores and yard sales. You can potentially save an



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item from the trash bin and save some cash in the process. From vintage or little-worn clothes to interesting furniture, thrift stores have grown into an excellent shopping option for a variety of items.

REPURPOSE, OR UPCYCLE, OLDER ITEMS

With a bit of effort, it's amazing how an old item can become something new again with a completely different purpose. Empty toilet paper rolls can be used to store and

organize cords, old ketchup bottles can be used to dispense pancake batter, a bent wrench can become a wall hook, old doors and windows (and even suitcases) can be turned into new coffee and kitchen tables, old bottles can

be turned into light fixtures, and even old lightbulbs can be turned into candles. Online social services such as Pinterest provide almost limitless ideas, if you're looking for ways to make old things new again.

Walk or Ride Your Bike

There are an estimated 253 million vehicles on the road in the United States, and the carbon footprint left behind is massive. How can that be reduced? The first step is to drive less, and the positive impact can be enormous.

The U.S. Census estimates that about half of all Americans live within five miles of their workplace. If all those people opted to bike to work every day instead of drive, you'd see a reduction in total household emissions of approximately 6 percent.

THE 'WARM UP' PROBLEM

According to National Geographic, motor vehicles produce more than 30 percent of U.S. carbon dioxide emissions, more than 80 percent of carbon monoxide and about half of the nation's nitrogen oxide emissions each year. Much of those emissions are created when a vehicle is warming up, meaning those emissions could be avoided by walking or biking.

Approximately 90 percent of Americans drive to work, while just 0.6 percent bike to work.

Walking and public transportation are also options to help reduce the carbon footprint created by driving.

BIKING CUTS HEALTHCARE COSTS, MAKES YOU HEALTHIER

Along with a healthy diet, proper exercise is one of the most important things a person can do to live a healthy life. Cycling fits nicely into



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that formula and could potentially save billions in health-care costs.

According to Discovery, a recent study focused on the upper Midwest noted that if half the residents chose to

take their car trips by bicycle, health care costs would drop by \$7 billion. Air quality also would improve, which would be another contributing factor to a healthy region, leading to 1,100 fewer deaths each year.

“If you have a city with good biking infrastructure, the potential gain in health benefits compared to risks could be, like in Europe, quite significant,” said Jonathan Patz, a public health scientist at the

University of Wisconsin, Madison, to Discovery. “Our study, which shows the incredible health benefits that are possible, gives that much more impetus to make our cities safer for biking.”

The Energy Efficient Home

Though you can buy a brand new home sporting a ton of high-tech energy-efficient accessories, there are affordable changes you can make to your existing pad to get it closer in line with a “green” lifestyle.

HGTV recommends a few low-cost ways to get started.

INSTALL A HIGH-EFFICIENCY SHOWER HEAD

Compared to a regular, old-style shower head, a high-efficiency model can save as much as 3,000 gallons of water per person per year. You also can save \$50 in energy costs and 1,000 pounds of carbon dioxide per person per year. These shower heads are specially designed to conserve water while still providing a water flow that matches a traditional head.

Many systems work by dispersing the water more evenly, while still using less water. Sink-aerator attachments are also an inexpensive addition that can save money and water.

USE HIGH-EFFICIENCY OUTDOOR, INDOOR LIGHTS

When you're lighting your porch or patio, some minor changes can make a big difference in energy usage. As HGTV notes, a typical 100-watt floodlight can consume up to \$40 of electricity over the course of a year and produce as much as 400 pounds of carbon dioxide, depending on where you live. One quick

fix: Replace older floodlights with compact-fluorescent versions. They should be just as bright but will use one-fourth the amount of energy. Low-wattage halogen landscape bulbs also can be replaced with LED models, which can cut energy use by as much as 80 percent while lasting for 10 or more years. Another way to lower usage is to install motion sensors on existing lights so they'll only kick on when you need them. After-market kits can be installed fairly easily on existing lights.

Inside the home, replace older lights with dimmable compact fluorescents. The sticker price is higher than typical bulbs, but they use less energy and are designed to last for years.

CHECK YOUR WATER HEATER SETTINGS

If you're not up for installing a tankless or solar water heater, you can make a few tweaks to your existing set up that can still cut carbon emissions by as much as 25 percent. Reduce the temperature of your water heater to 120 degrees, then wrap it in a water-heater insulating blanket and insulate the first 3 to 6 feet of hot and cold water pipes.



MAKE EVERYDAY EARTH DAY

Born on April 22, 1970, Earth Day is designed to mark the anniversary of what many consider the birth of the modern environmental movement.

According to the Earth Day Network, the idea came to Earth Day founder Gaylord Nelson, then a U.S. Senator from Wisconsin, after witnessing the ravages of the 1969 massive oil spill in Santa Barbara, Calif. Inspired by the student anti-war movement, he realized that if he could infuse that energy with an emerging public consciousness about air and water pollution, it would force environmental protection onto the national political agenda.

Senator Nelson announced the idea for a “national teach-in on the environment” to the national media; persuaded Pete McCloskey, a conservation-minded Republican Congressman, to serve as his co-chair; and recruited Denis Hayes as national coordinator. Hayes built a national staff of 85 to promote events across the land.

THE BEGINNING

As a result, on the 22nd of April, 20 million Americans took to the streets, parks and auditoriums to demonstrate for a healthy, sustainable environment in massive coast-to-coast rallies. Thousands of colleges and universities organized protests against the deterioration of the environment. Groups that had been fighting against oil spills, polluting factories and power plants, raw sewage, toxic

dumps, pesticides, freeways, the loss of wilderness and the extinction of wildlife suddenly realized they shared common values.

EVERYONE GOT INVOLVED

Earth Day 1970 achieved a rare political alignment, enlisting support from Republicans and Democrats, rich and poor, city slickers and farmers, tycoons and labor leaders. The first Earth Day led to the creation of the United States Environmental Protection Agency and the passage of the Clean Air, Clean Water and Endangered Species Acts. “It was a gamble,” Gaylord recalled, “but it worked.”

In 2000, as the millennium approached, Hayes agreed to spearhead another campaign, this time focused on global warming and a push for clean energy. With 5,000 environmental groups in a record 184 countries reaching out to hundreds of millions of people, Earth Day 2000 combined the big-picture fervor of the first Earth Day with the international grassroots activism of later years.

STILL GOING STRONG

More than 45 years later, Earth Day Network notes the fight for a clean environment continues in a climate of increasing urgency, as the ravages of climate change become more manifest every day.

How Much Waste?

The average person generates 4.3 pounds of waste per day, up from 1.6 pounds in 1960, according to a Duke University study.

According to EPA data from 2011, approximately 55 percent of 220 million tons of waste generated each year in the United States ends up in one of the over 3,500 landfills. Municipal solid waste landfills are the second-largest source of human-related methane emissions in the United States, accounting for approximately 22 percent of these emissions in 2008.

WHAT IS IT?

According to an EPA report, our trash — or municipal solid waste — is comprised of various items Americans commonly throw away after being used. These include items such as packaging, food waste, grass clippings, furniture, computers, tires, and appliances. MSW does not include industrial, hazardous, or construction waste. In 2012, Americans recovered over 65 million tons of MSW through recycling and over 21 million tons through composting.

We combusted about 29 million tons for energy recovery (about 12 percent). Subtracting out what is recycled and composted, we combusted (with energy recovery) or discarded in landfills 2.9 pounds per person per day of MSW. In 2012, lead-acid battery recovery was about 96 percent (2.8 million tons). Newspaper/mechanical



The amount of waste produced by Americans has been steadily increasing and has more than tripled in the past 50 years.

papers recovery was about 70 percent (5.9 million tons), and over 57 percent of yard trimmings were recovered (19.6 million tons). About 135 million tons of MSW (53.8 percent) were discarded in landfills in 2012.

HUNDREDS OF MILLIONS OF TONS

Total MSW generation in 2012 was 251 million tons. Organic materials such as paper and paperboard, yard trimmings and food waste continue to be the largest compo-

nent of MSW. Paper and paperboard account for over 27 percent, and yard trimmings and food waste account for another 28 percent. Plastics comprise about 13 percent; metals make up 9 percent; and rubber, leather and textiles account for

almost 9 percent. Wood follows at over 6 percent and glass at almost 5 percent. Other miscellaneous wastes make up approximately 3 percent of the MSW generated in 2012. Total MSW recovery in 2012 was almost 87 million tons.