

# Resource Conservation





# Begin a Recycling Campaign

The Environmental Protection Agency estimates that 70% of American waste can be recycled, but only 30% will make its way to a reuse facility.

When your family commits to a recycling campaign at home, your contributions to a greener planet are staggering. Check out these statistics from the EPA to inspire your efforts.

- One ton of recycled paper can lead to the saving of 17 trees and 7,000 gallons of water.

- Americans throw away about 28 billion bottles and jars each year.

- In 2015, the Container Recycling Institute estimates that 36 billion aluminum cans found in landfills had a scrap value of more than \$600 million.

Getting started on reusing and recycling is a compelling journey in which the whole family can participate.

## FIND YOUR LOCAL FACILITY

The first step of learning about recycling is understanding your local center's policies. Visit the facility to discover which types of materials are acceptable, then conduct a waste audit regarding how your household waste can be donated.

If you're unsure where the

closest recycling center is to you, check out the helpful website [recyclingcenters.org](http://recyclingcenters.org) to search by ZIP code.

Through research, you can find bins in your area where you can drop off your recyclables or bring them to a facility in person. You may be rewarded for your contribution with financial reimbursement.

## WHAT HAPPENS TO YOUR RECYCLABLES?

According to EcoCycle, by recycling about 30% of our waste per year, Americans save the equivalent of 11.9 billion gallons of gasoline. But, what exactly happens to our recyclables after they are sorted at a multi-reuse facility?

- Plastic bottles are used for carpet, clothing, auto parts

and new bottles.

- Paper is recycled into new paper; typically it can be reused up to seven times.

- Aluminum cans are reused for the same purpose and can be recycled an indefinite number of times.

Using recycled cans produces 95% less air pollution and 97% less water contamination.

## GET ORGANIZED AT HOME

Once you discover the types of items your local recycling facility will accept, you can organize your efforts at home to make the process simpler.

Start by sorting waste in separate containers and scheduling pickup or dropoff dates that work with your weekly routine.





# USDA Food Waste Challenge

Do you know what happens to the estimated 25 million tons of food that Americans throw away each year?

When waste arrives at a landfill, it quickly generates methane, which is a greenhouse gas that's 21 times more potent than carbon dioxide.

According to the United States Department of Agriculture, misuse is approximately between 30% and 40% of the country's food supply.

Food loss occurs during each stage of the production process. The organization Feeding America reports these statistics regarding the state of annual waste in America.

- About 20 billion pounds of fruit and vegetables on farms are left in the field.

- Approximately 52 billion pounds of food from manufacturers, restaurants and grocery stores end up in a landfill.

- Twenty-one percent of an average landfill volume is food waste.

In 2013, The USDA and the Environmental Protection Agency launched the United States Food Waste Challenge. The campaign aims to reduce food waste by 50% before the year 2030.

While achieving this goal will require manufacturers,



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farmers and others in the food system to work together, you can do things in your home to lessen the problem.

## PLAN YOUR GROCERY TRIPS

Avoid overbuying food that you will ultimately throw away. The EPA suggests keep-

ing records of the recipes your family enjoys and planning your meals throughout the week. Try to keep in mind how many times you will eat at home, or enjoy a night out and shop accordingly.

Before planning a shopping trip, analyze your home to see if you already have the goods

you intend to purchase. Or, create a menu around the food that is already available. Check expiration dates to decide which items should be used first.

## DONATE USED FOOD

While searching through your cupboards or storage

rooms, take stock of the inventory and consider donating food you won't consume. You can reach out to a local food pantry or homeless shelter to discover if they will accept your goods. Make sure to check the expiration dates when donating non-perishable goods.



# Preserving the Ocean

Oceans around the world provide some of the most valuable resources on the planet.

The World Wild Fund for Nature states that the most significant living space on Earth is deteriorating due to overfishing and pollution. If these large bodies of water are abused beyond repair, your life will change immensely.

While many view the ocean as a fantastic getaway for recreation, its actual role is much more vital. The Marine Bio Conservation Society reports that its main contribution is removing carbon from the atmosphere and providing oxygen while regulating Earth's climate. It also is loaded with biomedical organisms whose potential for fighting diseases are regularly discovered.

You should understand the importance of the ocean and why preserving it is so crucial for the well-being of the entire planet.

## SOURCE OF FOOD

Due to an increase in the human population, the demand for food is rising and leading to overfishing. According to MarineBio, fisheries, or fishing activity in the ocean, provides about 16% of the world's total protein. These groups are tasked with developing eco-friendly and sustainable methods to ensure the fish population can thrive.



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## CLIMATE REGULATOR

The National Oceanic and Atmospheric Administration suggest that the ocean affects our weather by absorbing the majority of radiation produced by the sun. As heated water molecules exchange with the surrounding air, evaporation takes place and causes the bodies of water to

distribute heat across the planet.

During this process, the atmosphere is continually changing in temperature and humidity, which is a significant cause of the formation of storms. Without the ocean transporting warm water and precipitation from the equator to the poles, there would

be uneven levels of solar radiation harming Earth's surface. NOAA states that this would lead to much more of the planet becoming uninhabitable.

## OXYGEN PRODUCER

It's easy to take oxygen for granted, but are you familiar with how it is created?

According to the Smithsonian, photosynthesizers like plants use carbon dioxide, water and energy from the sun to make food for themselves and release oxygen during the process. The ocean is home to contributors like phytoplankton and seaweed, which make up over half of the breathable air produced.



# Conservation in the Classroom

Teachers have the unique ability to introduce young children to thought-provoking lessons that they can carry throughout their lives.

Teaching them about preserving resources at an early age can show them its significance and encourage them to contribute positively in the future.

If your lesson plans are lacking in resource conservation, here are some ideas for different age groups, recommended by the USDA's Natural Resources Conservation Service.

## ELEMENTARY STUDENTS

Show your students how they can make an impact in their own backyards. A wholesome lesson is to teach children how to create a habitat for wildlife. It's easy to attract birds, butterflies and non-intrusive insects by growing beneficial plants and providing nesting feeders.

If you're unfamiliar with the types of flowers and plants that entice wildlife in your area, visit a local nursery for tips. Planting trees is another easy way to welcome animals and assist in cleaning the air. You can encourage students to participate by offering rewards like ribbons or trophies for their contributions to resource conservation.



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## JUNIOR HIGH STUDENTS

Educate your students about the risks of wasting water and promote a campaign for each child to do their part in conservation. Here are some statistics from the Environmental Protection Agency to help your middle-schoolers visualize the

seriousness of the issue.

- Turning off the water while brushing your teeth can save eight gallons per day.

- Allowing your tap to run for five minutes while washing dishes can waste 10 gallons of water and consume enough energy to power a light bulb for 18 hours.

- Each American uses about 88 gallons of water per day.

You should encourage students to be more conscientious about how they use water, as the resource is limited.

## HIGH SCHOOL STUDENTS

Older children can be intro-

duced to the process of composting yard waste into reusable nutrients that promote the growth of new plants.

By collecting clippings after mowing the lawn, pulling weeds or collecting leaves, the materials can be stored in a compost bin to help decompose quickly.



# Respect Protected Land

Protected land includes national parks, federal forests and nature preserves. These areas are not only significant to protect our natural resources, but they also contribute to the American economy and workforce.

It's everyone's responsibility to respect these lands and the wildlife and plants that inhabit them.

According to the United States Forest Service, the federal government holds in trust about 640 million acres of protected land. However, the country also is estimated to lose about 2 million acres of forest, farm and open space each year. Projections from the United States Department of Agriculture show a downward trend across the entire country of the per capita area of public and private land and water.

## DEFEND WILDLIFE

The National Wildlife Refuge System provides over 8,000 species with a suitable habitat. Of these animals, approximately 380 types are endangered. Preserving their sustainability can be achieved by taking a stand against poaching and respecting their land.



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Take a look at some of the species that recently became extinct or are dangerously close, as reported by The Weather Channel.

**Northern White Rhino.** The last remaining northern white male died in 2018. Worldwide only two females exist.

**Spix's Macaw.** The vibrant blue parrot is considered extinct in the wild due to the

creation of dams, deforestation and being trapped for trade.

**Vaquita.** The world's rarest marine mammal is a small porpoise that is on the brink of extinction because of being caught or drowned in illegal fishing operations.

Organizations like the Defenders of Wildlife engage in efforts at both local and national levels to press for

progressive policies that defend public and private land.

## HOW YOU CAN HELP

As land becomes unprofitable or upkeep becomes unaffordable, states may liquidate the property by auctioning it for other purposes. You can do your part by ensuring the protected areas you visit are kept clean and

free from litter. Gather a group of like-minded friends to spend a weekend cleaning up a section of private land.

You may also choose to make a financial contribution to your local wildlife organization. If you hunt or fish, make sure you do so legally. The majority of the money obtained from licensing fees go back into preserving the natural resources.



# Community Cleanup

The problem with litter is much more involved than aesthetics.

According to the Environmental Protection Agency, mismanaged trash can wind up in the world's rivers and oceans, causing severe damage to the planet and its resources. Illegally dumping debris is known to harm physical habitats, transport toxic chemicals and threaten life throughout river, marine and coastal environments.

Plastic is the most dangerous material to dispose of improperly. As bottles or bags find their way into waterways, marine life and birds fall victim to becoming tangled or ingesting the fatal product.

The organization Ocean Crusaders reports these sobering statistics regarding plastic and our world's oceans.

- There are approximately 5.25 trillion pieces of plastic debris in the ocean, with 269,000 tons floating on the surface.

- About 1 million seabirds die from plastic annually.

- At least two-thirds of the world's fish population suffer from plastic ingestion.

- Scientists have identified 200 dead zones, where living organisms can no longer grow.

Because the problem is so severe, it's vital to do your part in keeping your commu-



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nity clean and committing to disposing of trash properly.

## ORGANIZE A CLEANUP

If you are aware of an area in your neighborhood that is commonly littered, take the initiative to make a stand. Communicate your concerns with local officials and request their permission to organize a task group to clean the location.

Once approved, use social media to reach out to your peers, or post flyers in high-traffic areas. In your post, express your worry about the state of your community and how it impacts the planet.

## THINGS YOU NEED

Because types of litter can be harmful to both wildlife and human health, make sure

to take precautions before cleaning up. The organization Nationwide Cleanup urges participants to purchase gloves, masks and different color bags to organize recyclables from garbage.

Plan a fun event after the hard work is complete. You should consider organizing a lighthearted sports game or bring a portable grill so lunch can be prepared.

## TAKE ACTION

Bring the community's attention to the litter problem. After you have cleaned up an area, attend city council meetings to encourage lawmakers to enforce litter laws or adopt stricter laws. You can recommend that they hang signs declaring littering fees or use surveillance to find and hold people accountable for mismanaging their garbage.



# Limit your Time in the Car

The United States Environmental Protection Agency estimates that transportation accounted for the most significant portion of the U.S. Convention on Climate Change, at 29%. The category includes cars, trucks, planes, trains, ships and freight.

According to the Union of Concerned Scientists, personal vehicles account for nearly one-fifth of all U.S. emissions. In total, they emit around 24 pounds of carbon dioxide and other potent gases for every gallon of gas. Almost five pounds is caused by delivering, producing and extracting fuel. Still, over 19 pounds per gallon is emitted through the tailpipe alone.

By driving more efficiently or limiting the amount of time you spend in the car, your efforts can have an impact on reducing the toxins released into the atmosphere.

Here are some considerations to make, as recommended by the EPA.

## **CHOOSE FUEL-EFFICIENT VEHICLES**

Stricter regulations require automakers to create vehicles



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with outstanding fuel efficiency to lower the percentage of emissions they release. If you're in the market for a new car or truck, take advantage of the EPA's Green Vehicle Guide or its Fuel Economy and Environment Label to compare different options.

You may also consider investing in an all-electric vehicle as most manufacturers

are developing their own versions.

## **DRIVE LESS**

When possible, consider walking or traveling by bicycle when you can. Not only will your efforts benefit the planet, but you will gain incredible cardiovascular health benefits by incorporating a more physical lifestyle.

If driving cannot be avoided, try to take advantage of public transportation or car-pooling with friends or co-workers. When your vehicle can't be eliminated, attempt to do your traveling in one trip. For instance, group errands like grocery shopping, fueling up and your in-town chores by visiting facilities near each other.

## **AVOID IDLING**

We have all started the car in cold weather to allow it to warm up before our daily commute. You may not be aware that this practice pollutes the air, wastes fuel and can cause excessive engine wear. Do your best to avoid running your vehicle before it is necessary to get behind the wheel.