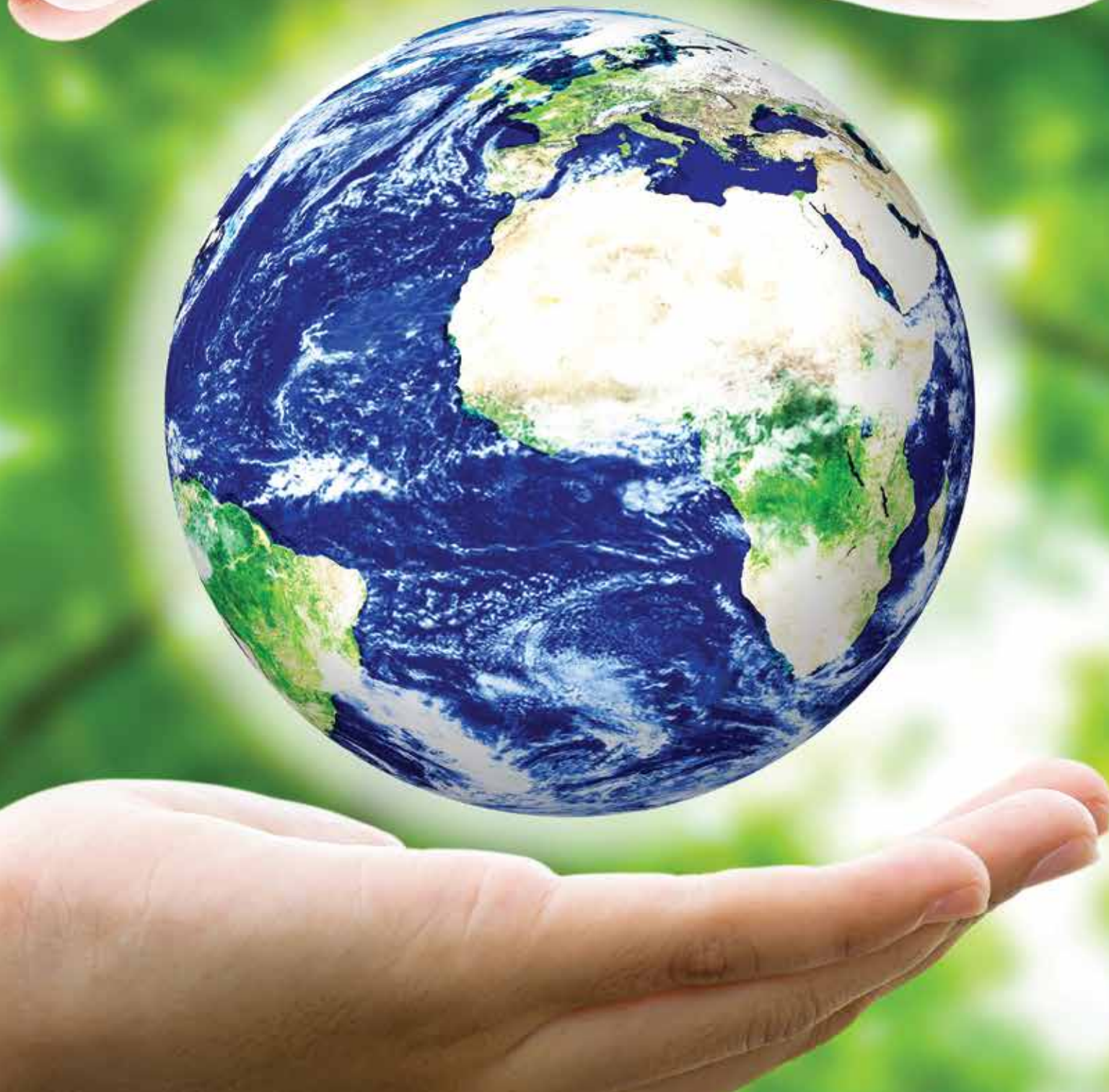


Resource Conservation



Reducing Electronic Waste

Our lives are filled with electronics and as technology improves, we often rush out to replace our current devices with new ones, creating a great deal of waste.

More and more products are being created with semi-conductors and sensors and at the same time, the life span of products is getting shorter.

Ten years ago, Consumer Electronics Association said that the average American household uses about 28 electronic products. It's only increased since then and the EPA released statistics saying that Americans generated 2.7 million tons of consumer goods in 2018.

According to the Columbia Climate School, e-waste is made up of several things. Electronic devices use precious metals such as gold, silver, copper, platinum, palladium, lithium and cobalt. They also have toxic heavy metals such as lead, mercury, cadmium, beryllium, PVC plastic and hazardous chemicals.

The World Economic Forum predicts that the world will produce 75 million tons of e-waste by 2030.

What can be done about that? Changes must happen at both a macro and individual level.



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Corporate and governmental changes

On the macro level, changes have to be made by both corporations and governments—something that individuals can advocate for.

Corporations need to manufacture products that can last longer, can be repaired and reuse the precious metals and plastics instead of making or mining for more. One study out of China found that it is 13 times more expensive to mine for precious metals than it is to recover them from e-waste, a process known as urban mining.

Many companies currently engage in practices that encourage electronic waste by

constantly updating the design or software of their items and then discontinuing support for older models. They also make it hard to repair devices or invalidate warranties if people try to repair their own devices. This should be discouraged.

In 2021, President Joe Biden issued an executive order providing the “right to repair,” which makes it easier for Americans to repair their electronics rather than having to take the in or throwing them out.

Around the globe, free repair clinics are starting to open and governments are providing incentives for corporations to make and market electronic goods more responsibly.

INDIVIDUAL CHANGES

Harvard University suggests six steps that individuals can do to reduce electronic waste:

- Re-evaluate whether you really need to purchase an electronic gadget. When possible, buy a device with multiple functions rather than several devices.
- Extend the life of your electronics by doing such things as using cases, keeping them clean and avoiding overcharging the battery.
- Buy environmentally friendly electronics that have Energy Star labels or that the Electronic Product Environmental Assessment Tool (EPEAT) has certified.

• Donate your used electronics. Seek out non-profit organizations that can re-use your electronics.

- Reuse large electronics.
- Recycle electronics and batteries.

Columbia Climate School further recommends that before you recycle any electronics, seal any broken parts in separate containers so that chemicals don't leak out. They also warn that before you recycle something, make sure the recycler is responsible. Look for those that have an E-Steward label on their websites. These recyclers have to meet high standards to be certified. They will also clear your data.

Greener Travel Choices

Travel, whether for business or pleasure, is an important part of people's lives.

As concerns grow about the use of fossil fuels, climate change and the impact people have on the environment, more travelers are trying to make low-impact choices.

This has spawned the growth of green travel, a way of decreasing one's carbon footprint while traveling and making eco-friendly choices. In 2020, Booking.com conducted a study in which they learned that more than 53 percent of travelers rank sustainable travel as a priority.

CHOOSING DESTINATIONS

Where you go has a huge impact on the environment.

According to the International Ecotourism Society, the definition of eco-tourism is "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education."

These trips are specifically designed to educate travelers about sustainability. The destinations offer interpretative experiences that promote the region's political, environmental and social climates.

However, green travel isn't just eco-tourism. It involves choosing destinations that are closer to your home. It might mean staying longer in a single



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destination rather than traveling between several. It means avoiding the crowded and popular locations. Or, if you're going to go somewhere popular, going during the off season or shoulder season so you put less strain on local resources and ecosystems.

TRANSPORTATION AND LODGING

The U.S. General Services Administration encourages government travelers to choose earth-friendly transportation and lodging options. Their FedRooms program identifies hotels and other lodging properties with green practices by identifying them with their

green icon. GSA shares the following suggestions:

Choose hotels that are locally owned or staffed by local employees, that have recycling programs and which offer options for reusing towels and sheets, that have energy-efficient lighting, low-flow toilets and showers or that use alternative energy sources and that are close to public transportation or near the places you are going to visit.

Book electronic tickets when flying.

Minimize air travel and stay longer in a destination.

Take a train, bus or car for closer destinations.

When renting a car, choose a

small hybrid car.

Pack lightly as the weight of luggage affects greenhouse gas emissions.

You can also look for hotels that have LEED or Green Key Eco-Rating certification.

GREEN PRACTICES AT A DESTINATION

Once you have arrived, don't throw your good habits out the window. Use public transportation or walk when possible. Conserve water and electricity. Only take the paper maps and brochures that you will use.

Eat local. Choose local experiences and tour operators so that the money you spend will stay in the community. Look

for experiences with low or no carbon footprints such as swimming, biking, canoeing, hiking or horseback riding.

CARBON OFFSET

Some travelers try to reduce their effect by carbon offsetting. These programs allow travelers to take environmental actions that will balance out the carbon emissions caused by their traveling. Sometimes this takes the form of donations and other times it takes the form of volunteer actions.

However, there have been scams related to this method in the past so carefully research any company offering carbon trade-offs.

Raise Your Voice

Greta Thunberg showed the world that you don't have to be an adult or an expert to use your voice for climate change. The Swedish activist started her political action when she was only 15.

The United Nations lists several actions people can take to create a more sustainable world. They include the usual ones such as recycling, reducing water waste, making better food choices and saving energy. But they also stress the importance of being a climate advocate. It's something that anyone can do no matter where they live.

Your voice matters. You have the opportunity to make changes in your corner of the world and within the organizations you belong to—whether faith-based organizations, churches, social organizations or schools. You also can influence what politicians do in your community, at the state-level and nationally.

PROMOTING CHANGE AMONG NEIGHBORS

Climate change is a huge issue with many aspects. Narrow your focus to a particular area such as energy conservation, transportation, clean energy, water use or environmental justice so that you can

learn about it in depth and then communicate with people and organizations in your community.

Join like-minded organizations and collaborate with others. You may even find it helpful to found your own organization with a very specific, focused task. Along those lines—know your audience. Who in your community will be an ally? Who will oppose what you do? Create a commu-

nication plan for each group.

Set goals that identify specific advocacy actions you can take. Start with an overarching goal and then break it down into small steps that will help you meet those goals.

Talk to leaders in the organizations to which you belong and advocate for actions such as recycling, green investing, water and energy conservation and other sustainable choices.

Encourage your friends and

neighbors to make green choices such as shopping local or cleaning up area parks and waterways. Organize times to do these things together as a fun way to bond with your friends and loved ones.

ADVOCATING FOR POLITICAL CHANGE

Ultimately, climate change is a political issue, though the need to save the planet should rise above the partisan divide.

Solutions come from decisions that lawmakers make, so voters have to be a part of the process if they want clean air, drinkable water and non-contaminated food and other resources.

Dr. Eliza Nemser, a geoscientist and the executive director of Climate Changemakers (a nonpartisan climate advocacy organization), told the Aspen Institute that the political narrative would improve if more people would be willing to participate by asking their friends, family, colleagues and neighbors to get involved.

“Those of us steeped in the climate movement have a responsibility to make climate action relevant to more people and keep it top of mind,” Nemser wrote. “We have the opportunity to scale our impact by two, 10 or even 100 times by inviting more doomscrollers to become changemakers.”

Advocate for political change by writing letters to media editors and to lawmakers, submitting public comments to proposed climate legislation and voting. Attend town halls and sign petitions.

Unicef lists several actions in a “Prepare to Act” handbook. It includes such things as organizing climate action events, participating in climate change panels, participating in interviews on climate change issues, meeting with authorities at multiple levels, lobbying for climate action, networking and building alliances.

Whatever you choose, know that your voice has power.



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Green Podcasts

There are many ways to learn and for a growing number of people, podcasts are their favorite educational and entertainment tool.

For people committed to resource conservation, green living and sustainability, there are several podcasts that offer informative and interesting episodes. If you're looking for podcasts that can help you learn more about saving the world, here are some you may want to consider.

The Mongabay Newscast: This is a free, biweekly podcast that analyzes global environmental issues. The podcast is put together by the staff of Mongabay, which is a nonprofit environmental science and conservation news platform that pulls on work from more than 800 correspondents in 70 countries. The podcast is available from their free app or at <https://www.mongabay.com/podcast/>

Radio 4: Costing the Earth: The BBC has hundreds of podcasts dating back years that can be downloaded from <https://www.bbc.co.uk/programmes/b006r4wn/episodes/downloads> or subscribed to in My Sounds. They define the podcast as “fresh ideas from the sharpest minds working toward a cleaner, greener planet.”

The Sustainable Jungle



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Podcast: This podcast describes itself as a “mission-driven show, focusing on solutions for the world’s sustainability and conservation

challenges.” They want to encourage positive change and do so by interviewing interesting and inspiring people. They are available on Apple

Podcasts, Spotify, Stitcher and at <https://www.sustainablejungle.com/podcast/>.

Thoughts From Home: This is an educational podcast created by the U.S. Fish and Wildlife Service’s National Conservation Training Center. It has short episodes exploring wildlife biology, nature, conservation and book reviews on conservation literature. It can be found in the National Digital Library and played with iTunes, QuickTime, Windows Media Player and other media players. They have a second podcast on conservation issues called Human Dimensions.

Sustainable: From 2015 to 2022, this podcast was a light-hearted comedy weekly chat that tackled big environmental issues. They had their last episode on Dec. 24, 2022, but the archive of 274 podcasts are still available at <https://www.sustainablebabble.fish/> or on iTunes, Spotify, Google Podcasts and Acast. They described it as being for and by the confused, a podcast that tried to cut its way through all of the confusing environmental information and identify the real villains.

Sustainable(ish): This weekly podcast, hosted by Jen Gale, offers non-guilt solutions for sustainable living. It’s designed to be a friendly voice that shares doable changes and tries to avoid eco-anxiety. It says it provides “practical help and support for the #imperfectlygreen.” It’s available at <https://www.asustainablelife.co.uk/a-sustainable-life-pod->

cast/

Hopecast: Dr. Jane Goodall brings her storytelling skills to a podcast designed to inspire action around the world. She shares stories from her life and interviews change-making guests. The podcast is available at <https://janegoodall.ca/hope-inspiration/hopecast/> or can be subscribed to on Spotify, Apple Podcasts, Google or Stitcher.

Yale Climate Connections: Are you looking for a short, daily dose of sustainability? The Yale Climate Connections is a daily 90-second investigative podcasts that promotes solutions that can be undertaken by many different groups of people. These podcasts are available at <https://yaleclimateconnections.org/the-climate-connections-podcast/> or on iHeartRadio, iTunes, Spotify and Stitcher.

Nature Podcast: Produced by the Journal “Nature,” this weekly podcast explores science issues related to conservation, the environment and research. It interviews the scientists behind the research they publish in their journal. Podcasts are listed here: <https://www.nature.com/nature/articles?type=nature-podcast>.

Women Mind the Water: Pam Ferris-Olson, a storyteller, artist and advocate, interviews female artists whose work involves protecting the ocean and raising awareness of water-related issues. It is available at <https://womenmindthewater.com/featured-guests>.

Environmental Paw Prints

Animal lovers know how important it is to work toward a more sustainable planet—in no small part because animals are some of those most adversely affected by climate change.

This is especially true of pets. As the planet heats up, many pets, especially dogs are unable to adapt and some breeds are in danger of dying out. Animals can suffer heat-stroke and sunburns. During heat waves, people are less likely to walk or exercise their dogs outdoors. Rabies thrives in warmer weather.

CHOOSING ECO-FRIENDLY PETS

Some pets are more eco-friendly than others. Pets that contribute to sustainability are chickens, goats, rabbits and ducks. Their waste can be used as fertilizer and they have a mostly plant-based diet. Chickens, goats and ducks can provide milk and eggs that can contribute to a more sustainable diet and goats can replace a lawn mower, reducing carbon emissions.

The least eco-friendly animals you can adopt mostly belong to exotic species, but include pythons, parrots and monkeys. Custom Earth Promos points out that people abandoning their pet pythons

in the Florida Everglades caused an overpopulation problem that disrupted its eco-system. They warn that owning exotic animals puts a species at risk as they are often stolen for illegal trade.

WAYS TO SUSTAINABLY CARE FOR PETS

There are several things you can do to engage in more eco-conscious pet care.

First, look at the products you buy. Avoid those with harmful chemicals or that won't biodegrade. Shop for organic bedding and toys and pet accessories that are made from natural ingredients.

Be conscious about what you purchase. Pet care is a huge industry and many things sold are entirely unnecessary for the health and happiness of a pet. Buying a fancy pet toy that

has traveled all around the world is unlikely to give your pet any more joy than chasing a stick or playing with a string of yarn.

Make mindful decisions about pet food. Don't put a carnivore on a vegetarian diet, but reduce the waste associated with pet food. The meat in pet food has a different environmental impact than human food. Most pet food is made up

of the parts of food-producing animals that humans don't eat. In some ways, pet food reduces industrial agricultural waste because it uses up material that would otherwise be thrown out.

Choose food-grade meat products for pets and not prime cuts. The organ meats in pet food is actually more nutritious than the muscle meat that humans eat, so you aren't depriving your animal companion by feeding them this less expensive food.

Avoid canned food as the cans often have toxins that make your pet sick and are bad for the environment. When possible, buy food in bulk and choose foods that are organic, non-GMO and from grass-fed animals.

While we are trained to not feed our pets from the table, you can turn food scraps into healthy pet food which they will enjoy and will reduce your food waste.

Always scoop your dog's poop, but put it in biodegradable waste bags and consider composting it rather than adding it to a landfill. Likewise, use biodegradable cat litter and compost the cat litter.

Cats kill 12.3 billion small animals and birds each year. If you let your cat outdoors, put a CatBib on them that keeps them from killing animals or put them in an outdoor enclosure.

Finally, spay or neuter your pets to prevent overpopulation and the environmental impact that unwanted animals have.



Keep Your Money Green

If you want to make changes in a capitalist society, then you need to spend your money in ways that encourage the change you want.

While that can start with purchasing recycled goods or buying local, investments also matter because they provide companies with the means to make sustainable decisions and proves that there is a high demand for those actions.

Green investing, also known as socially responsible investing or eco-investing, involves buying and trading stocks and bonds of companies that are committed to sustainability, whether that is in the form of creating sustainable products, reducing pollution, conserving natural resources or engaging in environmentally conscious business practices.

There are several ways you can engage in green investing, whether you are investing a lot of money or just a small amount.

TYPES OF GREEN INVESTING

Investopedia publishes a guide to green investing. In it they list several types of green investing, including:

Green equities: This is the buying and selling of stocks in companies that are committed to sustainability and creating a low-carbon economy.



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Green bonds: Also known as climate bonds, these are loans that help banks, companies and government bodies finance climate-friendly projects. According to the Climate Bonds Initiative in 2021, there were about \$1.1 trillion new green bonds issued. You may be able to get tax incentives when making these investments.

Green funds: Mutual funds and index funds are always popular among investors and there are some that specifically invest in several green stocks and bonds. Some popular green mutual funds include the Trillium ESG Global Equity Fund (PORTX), the Green Century Balanced Fund (GCBLX) and the TIAA-CREF Social Choice Equity Fund

(TICRX). There are also index funds that target renewable energy industries.

A good financial advisor can help you find green funds to invest in and there are several independent organizations that will rate stocks and funds according to their green practices. For example, Green America has set up a socially responsible investing heart rating system. It rates mutual funds based on four areas: overall heart rating, shareholder advocacy, community investing and ESG (environmental, social and corporate governance) screening.

You can also encourage your employer to invest your retirement funds in socially conscious funds. While you are

advocating for green investing, reach out to your faith organization, school or other community organization and encourage them to put their money in local banks and ensure that their investment portfolios are filled with green stocks and funds.

DIVESTMENT

Green investing isn't just about buying. Sometimes selling also sends a strong statement and can precipitate corporate change and action.

Divestment as a tool for social action became popularized in the 1990s when activists fighting apartheid convinced investors to divest in companies that did business in South Africa. Today, people are doing

the same thing to encourage change in fossil fuel usage and sustainability.

Divestment works best when it is part of a campaign and not just an individual sale. When a divestment campaign is launched, it puts companies at risk of losing revenue or having their stock prices drop.

In 2021, university students challenged their colleges and universities to divest from fossil fuels and 220 educational institutions divested their endowments from fossil fuel companies.

There are many ways to make your money work to create a more sustainable planet. Take a look at your investments and see how they might become more green.

Use Your Phone For Good

They say there is an app for everything. While that may not be true, there are certainly apps that can help you conserve resources and live a greener life.

GENERAL APPS

Are you looking for an app where you can better track everything you do to green the planet? Then check out these options:

ACT NOW: The United Nations has created an app called ActNow to support individual action on sustainability. It has six major features: Daily tips on living a more sustainable life, storytelling and educational stories, community challenges, habits you can activate and the ability to track them, detailed metrics to track your climate impact and growth points for every positive action you take.

Good on You: The fashion industry is one of the largest producers of carbon emissions. Good on You lets you check in on the ethics and sustainability practices of any major fashion brand. If you don't like what they are doing, the app will help you find an alternative brand.

JouleBug: This app wants you to have fun while practicing sustainable living. They provide suggestions for ways you can perform sustainable



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actions and then lets you compete against your friends and family on social media.

Think Dirty: Think Dirty lets you scan a bar code of any product and then they provide you with all the information on it. It gives you alternative items you can buy if the one you scanned is bad for the planet.

Too Good to Go: This app wants to end food waste. It connects consumers with food sellers. When a restaurant, bakery or other food seller has a surplus of food that they don't think they can sell, they list it

on the app. Customers can then buy the "surprise bag" by prepaying for it (usually at 1/3 of the price) and then go pick it up.

RECYCLING APPS

Whether you are new to recycling or already an expert, more information can help you to up your game. Some municipalities provide local apps that provide local routes, what can be recycled and how to get rid of certain things. Others focus on education or measuring how much waste you produce

and recycle.

iRecycle: This app helps you to find recycling venues in your area and makes suggestions for how to recycle whatever you own. Once you find a location to recycle whatever you have, it will even create a map to it. It was created by a worldwide organization that teaches about recycling, Earth911.

RecycleCoach: Recycling contamination can be a problem—because not everything can be recycled. Recycle Coach helps you unlearn bad recycling habits and form new, bet-

ter ones. They answer questions about what can and cannot be recycled. They suggest better ways to sort your waste and give solutions for what to do with hard-to-recycle items. You can also sign up for alerts to get trash and recycling reminders.

Grow Recycling: This app is a game for kids. Designed for preschool age and up, kids get to feed different kinds of recycling bins different items. It's a fun game that teaches kids how to properly dispose of or recycle 100 different items.