

Volunteer Clean Up Toolkit

EARTH DAY 2019

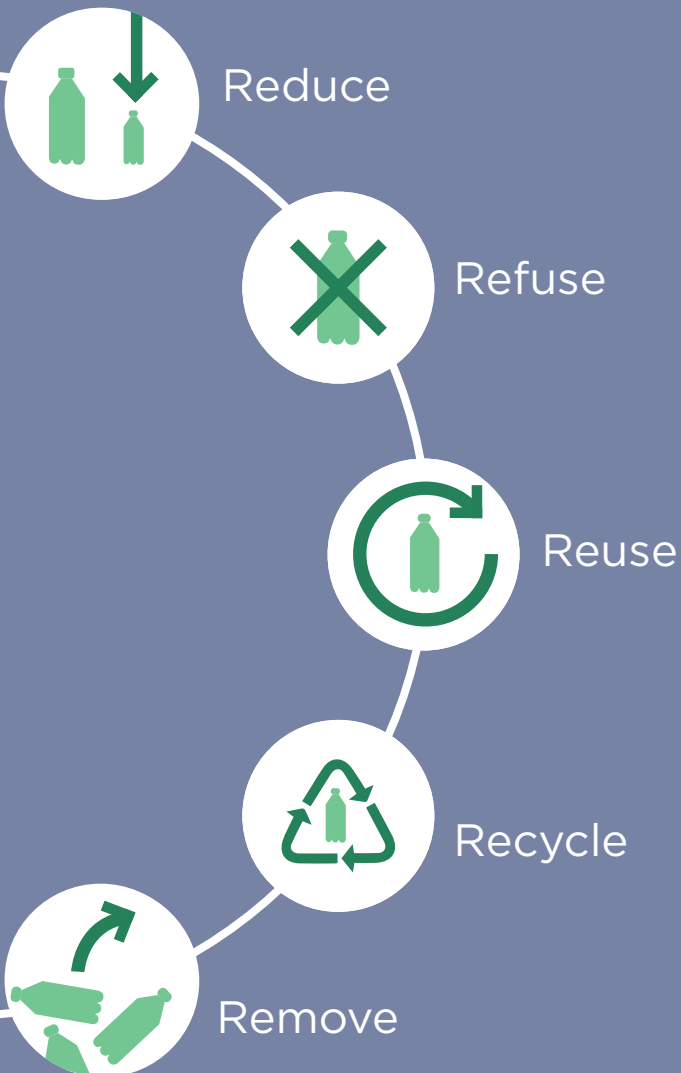


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Designed and prepared by David Ayer.

Additional resources were created by many others working to fight against plastic pollution. They are given credit and websites referenced when their work was incorporated into this toolkit, though we did not follow strict citation guidelines.

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Introduction

For Earth Day 2019 and 2020, Earth Day Network is encouraging people around the world to take part in community waste Clean Up events.

There are countless benefits to community clean ups, ranging from eliminating environmental hazards to community building. This toolkit will talk to you about the importance of cleaning up waste from the environment, the dangers of plastic pollution in the environment, the other benefits your community will see from holding a Clean Up, and why it is important for everyone to volunteer.



Environmental Benefits of Community Waste Clean Ups

When you collect litter that has made it into the environment, there are a number of environmental benefits that result. In addition to removing plastic pollution from the environment, here are the other significant environmental issues you are helping to combat:

CLIMATE CHANGE: Waste makes it into the environment when it is not disposed of properly. Collecting this waste in clean ups is a second chance for proper disposal. Glass bottles, paper, cans and other metals, and some plastics can all be recycled. By recycling these products, new material does not need to be extracted from the earth and refined. Products made from recycled materials (especially metal and glass) have a much smaller carbon footprint than those made from virgin (newly extracted) materials. By collecting recyclables and properly disposing of them, you will be directly lowering the planet's carbon footprint.

HARM TO WILDLIFE: Plastic, metal, and glass all take a long time to break down in the environment, plastic taking the longest. While they continue to exist in the natural environment, they can cause harm in numerous ways. Waste can be mistaken for food and obstruct the digestion systems of some animals while others can get entangled and trapped. Glass and metal can break and create sharp edges that could injure wildlife. It is important to make sure that harmful waste is removed from the environment before it can damage the species around us.

WATER POLLUTION: Toxins in litter, both consumer and industrial, can leach out into the water supply and be absorbed by the plants and animals that consume the water. These toxins can even make it back up to humans if water is improperly treated or if the toxins make their way in to the human food chain. It is important to collect waste, especially when it is in or close to waterways to prevent pollution of the local water supply.

According to the Ocean Conservancy's 2017 annual report, the top ten items most frequently collected in coastal Clean Up events are:

1. Cigarette butts (plastic)
2. Plastic beverage containers
3. Plastic bottle caps
4. Food wrappers
5. Plastic shopping bags
6. Plastic cup lids
7. Plastic straws and stirrers
8. Glass beverage bottles
9. Other plastic bags
10. Foam takeaway container

As you can see, a majority of the collected items are plastic. This is because these materials – from soft plastic bags, to hard plastic lids, to fossil-fuel-based foams – last much longer than others before breaking down and are extremely prevalent and disposable in modern society. The next section will break down the specific environmental problems plastic pollution creates and why plastics are so important to remove from the environment.



The Problem of Plastic Pollution

If you have recently walked down city streets, in the country side, or even along a beach on a remote island, you might notice something in common: plastics. Plastics are some of the most commonly littered items in the world and they are drowning our planet.

Is this a real problem, you might ask? Plastics have come to clutter almost every landscape, but they are so useful and have made our lives much easier. We can carry our purchases from the store, stay dry in the rain, store things easily and securely, and preserve perishable food. Plastics are present in furniture, construction materials, cars, appliances, electronics and countless other things. Plastics are everywhere, even in our homes. Just look closely in your refrigerator!

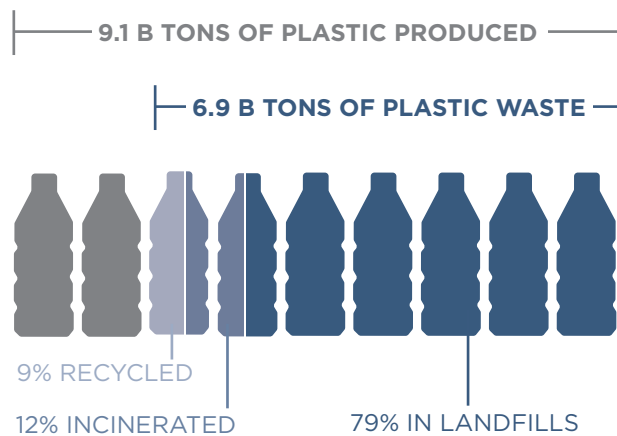


The Harmful Side of Plastics

PLASTIC POLLUTION

The invention of plastic in 1907 was considered a breakthrough. Plastic products soon became omnipresent in our daily lives. For many years, we only perceived the benefits of plastic and knew little of the damaging consequences for human health, natural ecosystems and the climate. Plastics are a problem mostly due to their un-biodegradable nature, the materials used for plastic production (hydrocarbon molecules—derived from the refining of oil and natural gas), and the challenges behind properly discarding them.

- 8.3 billion metric tons (9.1 billion US tons) of virgin (non-recycled) plastic has been produced to date.
- Generating 6.3 billion metric tons (6.9 billion US tons) of plastic waste.
- 9% of that waste has been recycled.
- 12% has been incinerated.
- The remaining 79% (5.5 billion US tons) of plastic waste has accumulated in landfills and the natural environment.
- 12 billion metric tons (13.2 billion US tons) will enter landfills or the environment by 2050 if current production and waste management trends continue.¹



According to a study by researchers at the University of California, Santa Barbara, the main cause for the increase in plastic production is the rise of plastic packaging. In 2015 packaging accounted for 42% of non-fiber plastic produced. That year, packaging also made up 54% of plastics thrown away.

¹ <http://advances.sciencemag.org/content/3/7/e1700782>



PLASTICS AND YOUR OWN HEALTH

After decades of producing trillions of oil-based plastic items, the negative consequences are startling. Plastic pollution is now recognized as a hazard to public health and the human body. Chemicals leached from some plastics used in food/beverage storage are harmful to human health. Correlations have been shown between levels of some of these chemicals, and an increased risk of problems such as chromosomal and reproductive system abnormalities, impaired brain and neurological functions, cancer, cardiovascular system damage, adult-onset diabetes, early puberty, obesity and resistance to chemotherapy.

Many plastics contain phthalates (DEHP) and the chemical BPA. If food or drink is stored in these plastics, they can be contaminated with these chemicals. If food is heated inside these containers in the microwave or if the plastic is ingested as in the case of a small child, these chemicals make their way into our food and into our bodies. Both chemicals are potentially harmful to human hormones, reproductive systems, and early childhood development.

PLASTIC AND CLIMATE

You may have thought that the only problem caused by plastic pollution is the negative effect that litter has on the environment. That is not the whole story. Plastic is a petroleum product. It is created from petroleum just like refined gasoline. The EPA estimates that production of plastic products accounts for an estimated 8% of global oil production. The drilling of oil and production of plastic releases harmful gas emissions into the environment, including carbon monoxide, hydrogen sulfide, ozone, benzene, and methane -- a greenhouse gas that causes a greater warming effect than carbon dioxide (source: Plastic Pollution Coalition). The EPA estimated that five ounces of carbon dioxide are emitted for every ounce of polyethylene terephthalate produced (also known as PET is the plastic most commonly used to make water bottles).

It is important to remember the connection between plastics and climate change. Climate change is one of the most pressing issues we face as a planet today. If other reasons to consume less plastic weren't already enough to convince you to act, the fact that consuming plastic products exacerbates climate change should be an important reason to take personal responsibility and make a commitment to help end plastic pollution.

PLASTIC POLLUTION IN THE OCEAN

Decades of poor waste management policies that saw and continue to see plastic waste being dumped directly into the ocean have led to an international pollution crisis that threatens each of the world's oceans. Did you know that around the globe there are five massive patches of marine plastic? These huge concentrations of plastic debris cover large swaths of the ocean; the one between California and Hawaii is the size of the state of Texas. Sea creatures eat or get ensnared in plastic debris and can be killed or maimed. Plastic that is consumed by marine organisms, as well as the toxins the plastic absorbs from the water, accumulate up the food chain making seafood potentially dangerous for humans as well.



Other Reasons Clean Ups are Important

In addition to the numerous environmental reasons for removing plastic and other waste from your local environment, clean ups also provide a number of other benefits to your community.

CLEAN UP YOUR COMMUNITY PLATFORM TO DISCUSS OTHER ENVIRONMENTAL ISSUES

Litter in both the natural and built environment is an eyesore. Regardless of whether or not you care about the environmental issues posed by improperly disposed of waste around the world (hint, you definitely should) we can all agree that it is unpleasant to see plastic bags and other litter cluttering our streets, sidewalks, beaches, and parks. Litter also attracts rodents and other pests to the area. Organizing a community clean up is a great way to brighten up your neighborhood and make it a nicer place to be. Visible changes in the level of litter in your community will also make individuals more conscious of their waste disposal; it's a lot easier to justify ignoring the trash can when there is already trash on the ground (the reverse is also true).

As mentioned, clean ups are great ways to bring people in the community together. This also presents a great opportunity to discuss the environmental issues that affect your community. The people participating will already be motivated and thinking about ways to improve the community and by participating in a plastic waste clean up, they have already demonstrated that they care about environmental issues. When you come to participate in a community clean up, consider bringing attention to some of the other environmental issues in your community. This could be a good platform to rally some support behind a cause.

IMPROVE EMPATHY

Studies have shown a correlation between those who live in a clean environment and higher levels of empathy.² Those levels of empathy are proven to be even higher when the individual was personally involved in the cleaning process themselves. By taking part in community clean ups, you may increase your own empathy towards others.

BUILDING HEALTHY LOCAL ECONOMIES AND CREATING A SHARED SENSE OF OPTIMISM

Dirty trash-littered communities breed hopelessness, pessimism and low self-esteem among the people who live there. Conversely, clean communities help raise people's spirits, their sense of self-worth and their optimism about the future. Clean communities attract healthy local commerce and improve local economies, which in turn create opportunities for individuals to improve their lives.

BRING YOUR COMMUNITY TOGETHER

Neighborhood clean ups are also a great way to make a community more tightly knit. The teamwork nature of neighborhood clean ups makes it easy for new friendships to be formed. Participating in community led clean ups is a great opportunity to become more involved and get to know the people who live nearby.

² <https://www.prnewswire.com/news-releases/can-cleaning-make-you-more-empathetic-new-research-says-yes-300594707.html>



Things to Remember When Taking Part in a Clean Up

When taking part in an organized clean up, the organizer should tell you what tools you need to bring and the things they will supply for you. Some things to consider before you head out to the clean up:

- Make sure in advance that you are volunteering with a group that has done a good job planning. Your organizer should:
 - Have well-made plans for the disposal of all collected waste
 - Have plans for the safety of volunteers
 - Be prepared to supply necessary supplies and equipment such as gloves, water, collection bags or buckets, and first aid equipment
 - Ideally have plans for the collection and reporting of the amount of waste they collect
- Will you need sunscreen on the day? (Sun radiation can still affect you if the sky is cloudy.)
- If you have a pair of gardening or work gloves you particularly like, you may want to bring these along as well. Organizers should supply gloves, but they may not be as nice as yours.
- Bring a water bottle that you can refill. You don't want to have to rely on a single-use plastic bottle at a waste clean up event (that's not a good look).
- Be careful around potentially hazardous objects. If you don't have the proper equipment to pick up items such as syringes, broken glass, dead or injured animals, and other hazards, don't try to pick them up. Stand by the hazard and watch it while another volunteer alerts the attention of the clean up organizers.
- Take lots of pictures! Its always great to spread the word that you are out there volunteering. It will show others that you care about the environment and make them want to take part in a clean up as well. One cool idea would be to take a before and after photo of the clean up site; this will highlight the progress your group has made. When you share your photos on social media, be sure to use the hashtag #EarthDayCleanUp19.



Why Volunteer

There are so many reasons why volunteerism is important. One is obvious: there are holes that aren't being filled either by government or institutions that simply need someone to step up and do the work. However, the personal and societal benefits to be gained through volunteerism spread beyond accomplishing tasks that simply won't otherwise get done.

IMPROVE YOUR HEALTH AND HAPPINESS

Data suggests that people who participate in volunteer activities “report better health and greater happiness than people who do not.” This relationship was additionally shown to have no connection to changing socio-economic backgrounds.³ This suggests that by taking part in volunteer opportunities such as clean ups, you are improving the environment around you and own well-being.

TAKE PART IN GROUP ACTIVITY

Our lives are becoming increasingly separate from one another. Digital communication has led to less face-to-face interaction among individuals, meaning more and more we don't know the people living around us. While digital communications have allowed a wealth of new opportunities and innovations, it is important to remember to interact organically. Volunteering in the community is a great way to get out and interact with people around you who are passionate about similar issues. By collectively working on a project with shared passion creates tighter bonds and will lead to lasting friendships and relationships.

REDUCE ANXIETY

It can sometimes feel like the world's problems are too big to fix. Intransigence in government and looming potential consequences on the horizon can lead to an impending sense of anxiety about the future of the world. The best way to combat this anxiety: get out and do something about it. It is easy to feel like there is nothing we can do to help. By volunteering and actually making a difference in your local community, you will begin to see that collective action does make a difference. This increase in hope will lead you to work harder for the future and motivate you to encourage your friends and family to take part as well.

INCREASE YOUR SELF CONFIDENCE

It has been shown that teens and young adults who volunteer more develop better self-esteem. By showing them early on that their actions can improve the lives of others, teens and young adults develop the sense that their actions really do matter. Thus, improving self-esteem.⁴

So, let's all come together and clean up!

³ <https://www.ncbi.nlm.nih.gov/pubmed/18321629>

⁴ <https://money.usnews.com/money/personal-finance/articles/2012/04/04/why-helping-others-makes-us-happy>



MORE RESOURCES

How to Turn a Community Clean Up Into a Fun Scavenger Hunt Game:

<http://www.mykidsadventures.com/cleanup-savenger-hunt/>

Use Literatti to join the community identifying, mapping, and collecting the world's litter:

<http://bit.ly/2oJsws2>

Seven Charts that Explain the Plastic Pollution Problem

<https://www.litterati.org>

Use the Dive Against Debris app to record and report the ocean pollution you collect while scuba diving:

<https://www.projectaware.org/news/use-your-phone-take-action-clean-ocean>





EARTH DAY NETWORK

Thank you for taking the time to read through our Toolkit.

We hope you have picked up a few tips along the way that will help you to tangibly lessen your plastic pollution footprint by becoming a volunteer.

WWW.EARTHDAY.ORG