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CONSUMER IMPACT

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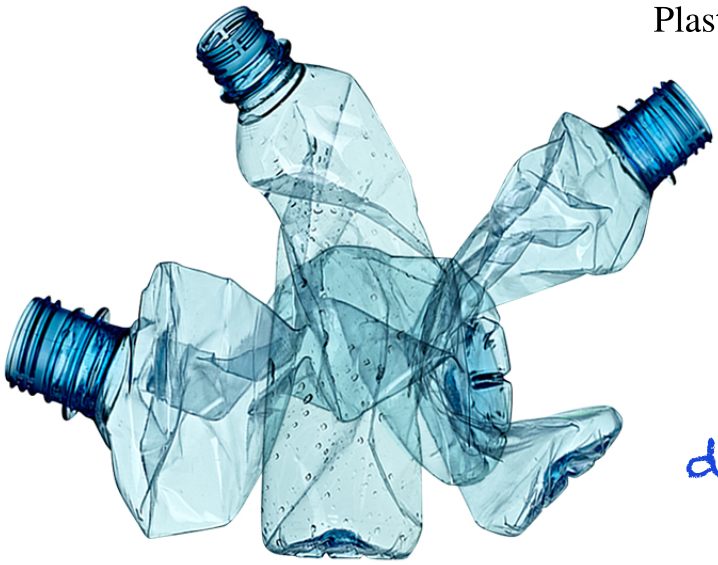
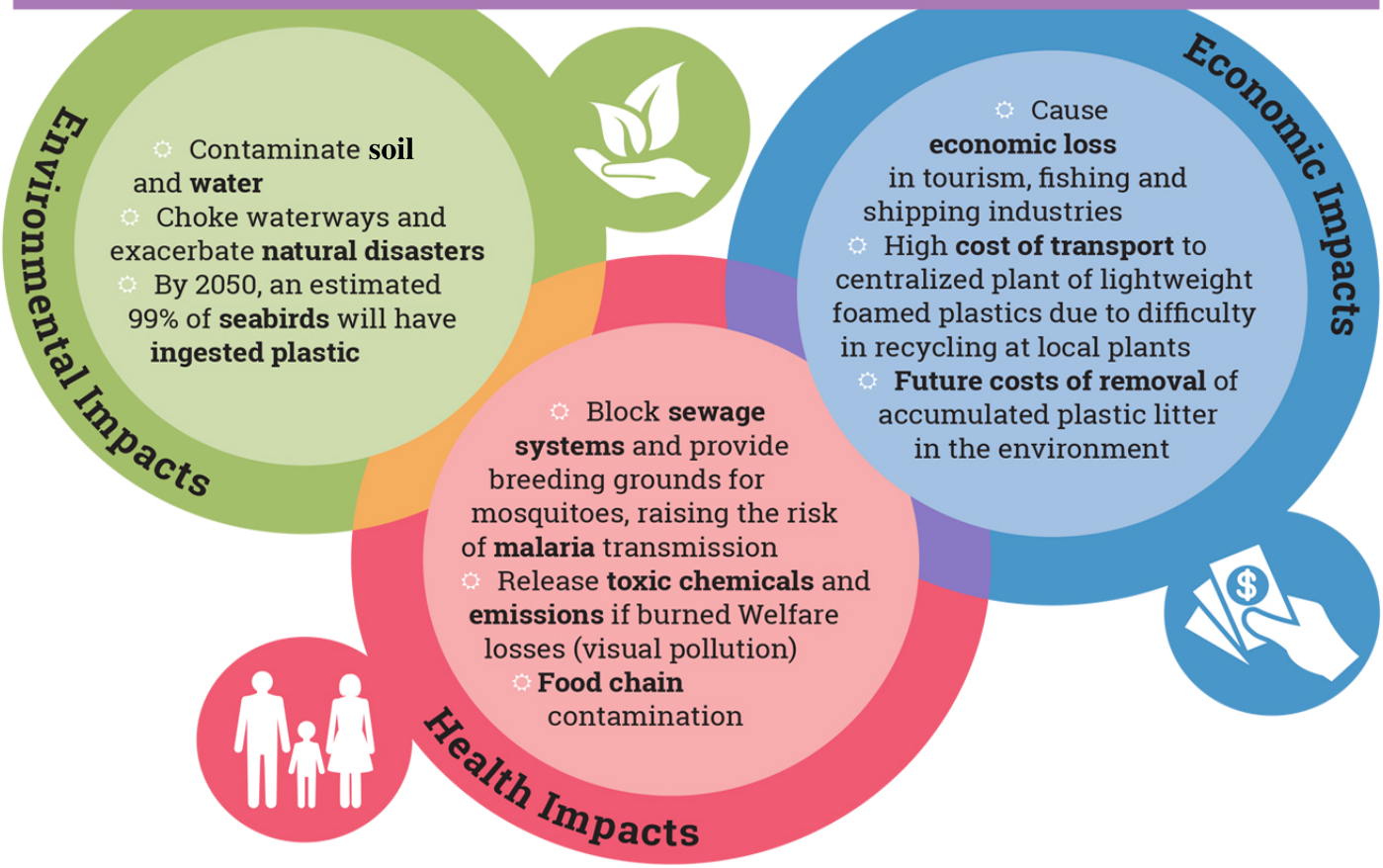
IMPACTS OF MISMANAGED SINGLE-USE PLASTICS



Plastic is a highly useful material in our everyday lives, but our consumption and production of plastics, especially single-use plastic, have become unsustainable. This is impacting our ecosystems, causing negative environmental consequences, including pollution of the local and international environment, and threatening human health.

Single-use plastics are disposable plastics meant for use-and-throw.

Cost of inaction: If we don't improve our **consumption patterns** and **waste management practices**, **by 2050** there will be around **12 million metric tonnes of plastic litter** in landfills and in the environment.



Minister's Message

Plastic is a material that has brought enormous convenience to our lives, but it is this convenience that has contributed to the crisis the world faces today.

The benefits of this ever-present material are many. It is inexpensive, lightweight and easy to make. These qualities have lead to a notable increase in the production of plastic over the century. This trend will continue as global plastic production increases exponentially over the next 10 to 12 years. However humankind is already unable to cope with the amount of waste we generate. Only a minute fraction is recycled, and 13 million tonnes of plastic find its way into our oceans every year, harming marine life and even our own health.

But as with every challenge, it also offers us immense opportunity to rethink the way we live, consume and produce goods.

Consumers, the private sector and policymakers all have crucial roles to play in tackling environmental challenges, especially plastic pollution and climate change. The Government of Antigua and Barbuda has already implemented an External Trade Prohibition Order on shopping plastic bags and a phased-out ban on importation and use of Styrofoam.

Every action taken to address plastic pollution is critical. We in the Ministry of Trade will continue to educate consumers on the challenges that rising material prosperity presents, as plastic is a key raw material for many consumer goods. We strongly recommend the business sector to relook sources of goods and to rethink the way we manufacture and use plastic, especially the single-use items that make up a large amount of the waste we generate.

As we celebrate World Consumer Rights Day, I encourage you to reduce much of the plastic you use in your daily lives, and to replace them with environment-friendly options. There is no time like the present to craft entrepreneurship and innovation to reduce our dependence on single-use plastic. Equally important is for us to raise awareness about plastic pollution and influence manufactures, suppliers and consumers to seek alternative options.

I take this opportunity to commend the staff at the Division for their hard work and continued efforts in keeping the public updated and informed on this and other important consumer matters.

Hon E. P. Chet Greene
Minister
Foreign Affairs, Immigration and Trade

Did You Know?

Caribbean lives and livelihoods depend on healthy marine and coastal environments: 70% of its population lives along the coast!

- By 2050, it is estimated that there will be more plastic in the oceans than fish.
- 100,000 marine mammals and turtles and 1 million sea birds are killed by marine plastic pollution annually.
- An estimated 8 million tons of plastic enters our oceans every year.
- Single-use plastics account for 50 percent of the plastic produced every year.
- Half of all plastics ever manufactured have been made in the last 15 years.
- 40 per cent of plastic produced is packaging and discarded after one use.

Saving Our Health, and Saving the Environment

By Daryl George
The Department of Environment

Plastics are killing the planet, and they are killing us too.

This stark statement may sound like over-exaggeration but it is not. Up to 15 million tons of plastic litter are dumped into the ocean every single year, causing serious harm to marine and bird life, and the environment in general. Closer to home, studies have found that there are up to 200,000 pieces of plastic per square kilometre in the Caribbean Sea – three times the global average.

This year's theme for World Consumer Rights Day is "Tackling Plastic Pollution". And it couldn't have come at a better time. Although plastics have become almost a necessary staple in our everyday lives, Antigua and Barbuda, along with the rest of the world, is suffering from the unsustainable production and use of plastics. Plastics present a unique challenge because of the fact that they are extremely difficult and time consuming to fully break down – this means that almost every single piece of plastic ever created still exists today and will not be properly broken down for hundreds of years.

Every year, it's estimated that at least 100,000 marine mammals and turtles, and 1 million seabirds are killed by marine plastics. However, the damage does not stop there as fish, birds, and other food sources ingest plastics, and we humans end up eating these contaminated animals, poisoning ourselves as well. Much of our fish contain micro plastics, which are small pieces of plastic. Despite often being too small to be seen with the naked eye, micro plastics still have a devastating effect on our health. Some plastics contain toxic cancer- causing chemicals called Diethylexyl phthalate (DEHP), while toxins in other plastics are directly linked to birth defects, immune system issues, and childhood development problems.

In other words, plastics are killing the planet, and they are killing us too.

However, it isn't all doom and gloom. There is much that can, and is, being done to tackle plastic pollution. Antigua and Barbuda has been a leader in the fight against plastic pollution. In 2016, Antigua and Barbuda was one of the first countries to ban

ban several types of plastic – including plastic bags and Styrofoam, while promoting the use of biodegradable packaging. Several other countries in the Caribbean have followed, while worldwide there is a movement to reduce or eliminate several types of plastics. In addition, Antigua and Barbuda created the "Antigua and Barbuda Declaration", which aims to encourage other Caribbean countries to eliminate single use plastics and reduce ocean pollution.

But the fight to tackle plastic pollution doesn't end at the government level: it will take each and every one of us to save our own health, as well as the environment. There are ways in which you, the everyday consumer, can help to reduce plastic pollution. These include:

1. Stop buying bottled water – Instead of buying bottled water, use refillable bottles and fill up from water coolers or other clean water sources.

2. Use plastic free/biodegradable alternatives – Purchase products that use biodegradable or non-plastic packaging.

3. Reuse plastic based items where appropriate – There may be times when purchasing plastic is unavoidable. Where possible and appropriate, reuse items that have plastic (e.g. clothing) when safe to do so.

4. Recycle – Use facilities such as the Antigua and Barbuda Waste Recycling Corporation (ABWREC) to recycle some plastic items such as water bottles.

5. Buy used/second hand items – Many new items come with plastic packaging. To avoid this, always investigate if there are similar items that you can purchase second hand. Not only will you be reducing your individual plastic pollution output, but you'll be saving money too!

So for this World Consumer Rights Day, take a stand, and do your part to tackle plastic pollution for the betterment of your health, and the environment.

Much of our fish contain micro plastics, which are small pieces of plastic. Despite often being too small to be seen with the naked eye, micro plastics still have a devastating effect on our health.

Plastics in Paradise

By Britney Hay, Wildlife Officer, Environmental Awareness Group)

In every corner of the world, plastic pollution plagues our marine and terrestrial environments, threatening the survival of thousands of species of wildlife. Antigua and Barbuda, despite its smaller size and population when compared to most other nations of the world, is no exception; the stains of plastic pollution are easily seen along our coastlines and within our wetlands, too.

The Environmental Awareness Group (EAG), a local non-profit environmental organization, recognized the monumental impact plastic pollution was having on our local species and ecosystems. Particularly given our focus on monitoring local bird populations, we saw how the environment of our shorebirds was being desecrated by plastics. Watching our shorebirds scuttle along a terrain littered with pollution in search of food made an already upsetting reality impossible to stomach and desperate to challenge. As a result, the EAG launched #TrashChallengeAntigua, a local clean-up initiative aimed at curbing plastic pollution in Antigua and Barbuda.

#TrashChallengeAntigua was started so that human health, marine and coastal ecosystems, and animals such as shorebirds, fish and turtles would all be less severely impacted by plastics and microplastics. It allows people to see first-hand the impact plastic pollution is having on our ecosystems and recognize just how much of an impact our lifestyles have on the natural environment. The 2019 instalment of the challenge coincided with International Coastal Cleanup Day (ICCD) and focused on the negative impacts that plastic pollution has on our coastlines, and coastlines around the world.

Our 2020 instalment of the challenge, however, was tailored more specifically towards addressing the pollution of the local habitats favored by our native and migratory shorebirds and coincided with World Migratory Bird Day. Not only did the challenge emphasize how important it was that Antigua's coastal ecosystems are healthy and welcoming for the migratory birds who visit from the North every year and depend on them for food, but it shed light on how valuable these ecosystems are all year round for the native shorebirds who call them their home.

#TrashChallengeAntigua continues to be a resounding local success, the 2020 instalment having over 205 participants and collecting approximately 10.9 tonnes of trash from 10 shorebird habitat locations (beaches and mangroves) across the island. We continue to hope that these clean-up events do not only inspire locals to be mindful of how they handle their waste, but to care about the ecosystems that are threatened by waste pollution. We each have a responsibility to be mindful of the way that we live our lives and think about how our choices as consumers may affect our fragile ecosystems and organisms, who silently do so much for us.

#TrashChallengeAntigua may be the first step towards change locally, but we all have miles yet to walk to break free of the shackles of plastic pollution entirely.

HOW LONG TO DECOMPOSE?

APPROXIMATE TIME IT TAKES FOR GARBAGE TO DECOMPOSE IN THE ENVIRONMENT

"Many of the below examples of trash contain plastic components. Once in the water, plastic never fully biodegrades, but breaks down into smaller and smaller pieces, eventually being dubbed a "microplastic" — something that is less than 5mm long and still able to cause problems for marine life."

Sources:
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Plastic Pollution Footprint Calculator

Now that you have learned about plastic pollution and have been able to assess the evidence that we need to address this issue, are you curious to know what has been your contribution in the past?

CALCULATE YOUR PLASTIC CONSUMPTION

How many of the following items do you consume?

CHART 1 (Daily)	#/ DAY		#/ YEAR
Plastic bottles		x 365 =	
Plastic hangers		x 365 =	
Plastic trash bags		x 365 =	
Cotton swabs with plastic sticks		x 365 =	
Snacks with excess packaging		x 365 =	
Plastic resealable bags		x 365 =	
Plastic cling wrap		x 365 =	
Fresh bread in plastic bag		x 365 =	
Cosmetics in plastic container		x 365 =	
Food containers		x 365 =	
CHART 1: Total # consumed / year:			

CHART 2 (Monthly)	#/ MONTH		#/ YEAR
Food Packaging **		x 12 =	
Plastic grocery bags		x 12 =	
Cleaning containers***		x 12 =	
Toothbrushes		x 12 =	
Toothpaste		x 12 =	
Medicine bottles		x 12 =	
Diapers		x 12 =	
Feminine products		x 12 =	
CHART 2: Total # consumed / year:			

** Plastic bags for produce, produce in plastic packaging, large beverage containers.
*** Dish washer fluid, laundry detergent, fabric softener etc.

	Total # Consumed / Year
Chart 1	
Chart 2	
GRAND TOTAL	

This plastic pollution footprint calculator will help you to calculate your total yearly consumption of plastic products. This will allow you to analyze your past consumption. That is the first step to make a plan to reduce your plastics pollution footprint.

This calculator only evaluates your use of plastic items designed for short term use that will be discarded approximately within 30 days of the original purchase date. In addition to these items, you may also want to evaluate your use and disposal of more long-term items made of plastic. These might include consumer electronics, vehicles, furniture, construction material, and clothing. The calculator does not address those items.

Now that you know how many plastic items of short-term use you consume every year, we hope you are thinking about what to do to reduce your plastic pollution footprint. You might want to consider reducing, refusing, reusing, recycling and removing your daily consumption of plastic.

Cooking Up Your Immunity

Dorothy Graham-Charles
Nutrition Consultant

When you think of boosting immunity, what is the first thing that comes to mind? Yes! You are more than likely thinking along the lines of healthy eating or nutrition. Among other factors, nutrition plays a critical role in achieving optimal health. But while we focus on boosting immunity, let us also talk about the things that people do without realizing that their actions further contribute to a suppressed immune system. Within this perspective, immunity is often not associated with the use of skincare or cleaning products or kitchenware.

The theme for this year's World Consumer Rights Day 'Tackling Plastic Pollution' prefaces us to this ubiquitous receptacle that has versatile uses yet causes diverse health issues. In addition to plastic, scientific studies reveal that certain pots and utensils used to prepare and cook food have been linked to adverse health outcomes such as nerve-related disorders, inflammation, and cancers. As a matter of fact, the practice of serving hot food in plasticware or reheating foods in plastic increases the ingestion of cancer-causing agents called carcinogenic compounds. In addition, much of the plastic waste ends up in the sea or on land where animals eat them, or leach into the groundwater and plants, thereby cycling back to our dinner table.

So, the question is, what type of kitchenware do you use to prepare or store food? While consumers become more conscious and adopt globally sustainable practices, here are some ways you can tackle the global plastic pollution crisis while improving our environment and your overall health.

1. Prepare and store foods using stainless steel, glassware, stoneware, bamboo, clay pots, beeswax, and other eco-friendly cookware. Most of these can also be used to reheat and store foods. They last longer and are healthier for the environment.

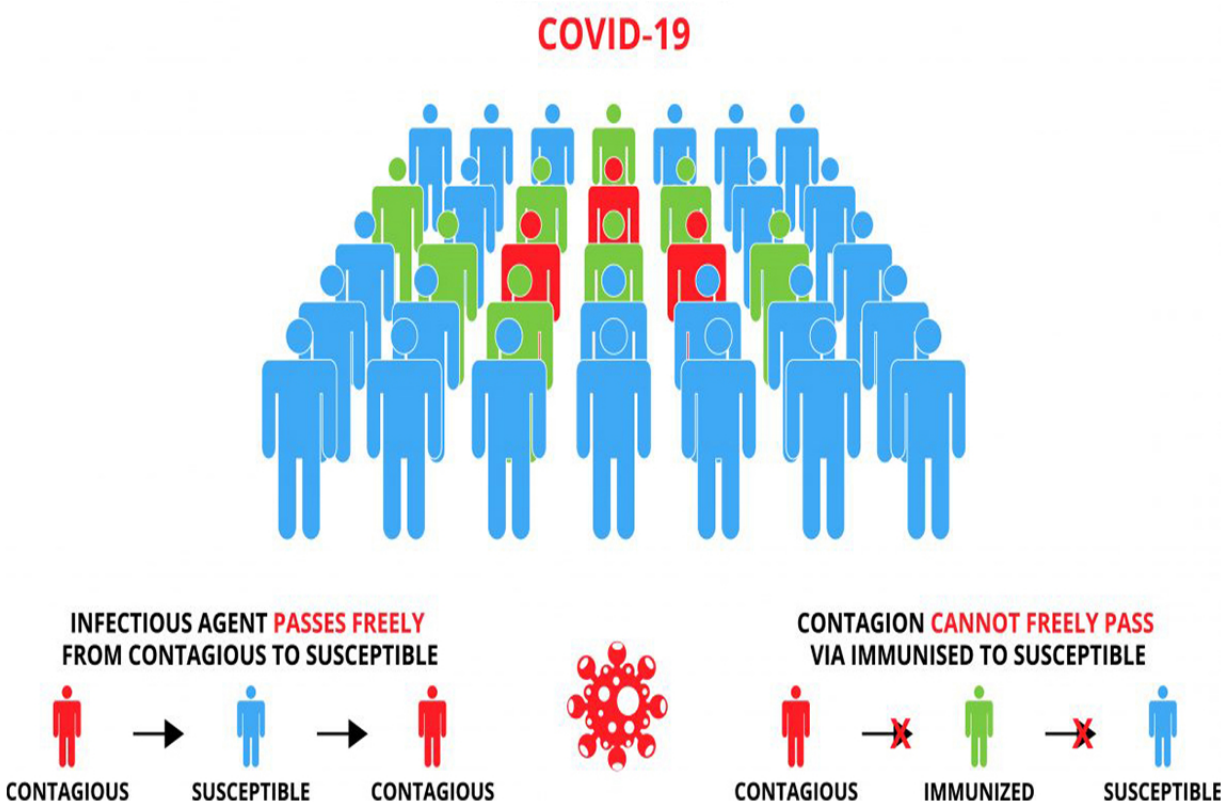
2. Use travel mugs or flasks to commute hot and cold foods. These are also a great way to track your daily fluid intake since you can travel with large quantities at a time.

3. Though each cookware has pros and cons, they are better alternatives to heated plastic. Be sure to purchase from reputable sources to ensure that the product is not laden with toxic substances such as lead, aluminium or synthetic coating that may leach into foods and in the long run affect your health.

Eating healthy foods without adjusting your environment is like building a house, but at the same time shovelling the soil from under the foundation. The bottom line is that while you seek to build immunity, also consider a more holistic approach to health. This means that in addition to selecting a variety of colourful fruits and vegetables, why not start by making small changes like swapping your kitchenware so that you can achieve optimal health in your immediate and wider environment!

Health Tip: Limes, Lemons, Oranges, Ginger, Turmeric, Onions, Garlic, and other fresh seasonal fruits, vegetables and herbs are great immune boosters. Be sure to utilize them in versatile ways by incorporating them in soups, salads, sauces and beverages.

WHAT IS HERD IMMUNITY?



'Herd immunity', also known as 'population immunity' or 'community immunity', is the indirect protection from an infectious disease that happens when a population is immune either through vaccination or immunity developed through previous infection. WHO supports achieving 'herd immunity' through vaccination, not by allowing a disease to spread through any segment of the population, as this would result in unnecessary cases and deaths.

Herd immunity against COVID-19 should be achieved by protecting people through vaccination, not by exposing them to the pathogen that causes the disease.

Vaccines train our immune systems to create proteins that fight disease, known as 'antibodies', just as would happen when we are exposed to a disease but – crucially – vaccines work without making us sick. Vaccinated people are protected from getting the disease in question and passing on the pathogen, breaking any chains of transmission.

To safely achieve herd immunity against COVID-19, a substantial proportion of a population would need to be vaccinated, lowering the overall amount of virus able to spread in the whole population. One of the aims with working towards herd immunity is to keep vulnerable groups who cannot get vaccinated (e.g. due to health conditions like allergic reactions to the vaccine) safe and protected from the disease.

The percentage of people who need to be immune in order to achieve herd immunity varies with each disease. For example, herd immunity against measles requires about 95% of a population to be vaccinated. The remaining 5% will be protected by the fact that measles will not spread among those who are vaccinated. For polio, the threshold is about 80%.

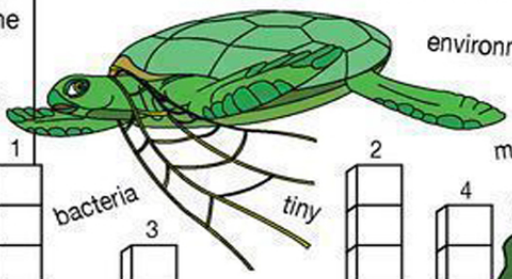
Achieving herd immunity with safe and effective vaccines makes diseases rarer and saves lives. (WHO)

Reading Club Fun!

People make items out of plastic because it is a durable, low-cost and shatterproof material for things like soda bottles. Many people, thinking about the environment, reuse plastic items or recycle them into other goods like playground materials, stadium seating, carpeting or even soft, fleece clothing. As use of plastic grows and some people carelessly throw plastic items onto the ground or into waterways, "plastic pollution" continues to increase. Most plastics take a very long time to break down and can stay floating in water or the oceans for years. The plastic can be harmful to ocean wildlife like sea turtles, fish and seabirds. Animals can get caught in plastic nets or rings. Some animals may eat pieces of plastic, mistaking them for food. This pollution can affect foods for humans, too.

What Is Plastic Pollution?

How can we stop it?



Read the clues to fill in the crossword puzzle:

1. scientists don't fully understand the impact plastic pollution will have on the _____
2. food _____ make up about one third of all plastic pollution: bottles, bags, and straws also are a problem
3. more than half of all _____ have eaten plastic
4. biodegradable plastics can be eaten by microscopic _____ and will break down over time
5. when plastic is broken down by bacteria they drop _____ pieces called *microplastic*
6. microplastic looks and even smells like _____ to some sea creatures
7. plastic item most commonly eaten by sea creatures is a _____
8. _____ can hurt the insides of sea creatures; if people eat those creatures, *they* could be hurt

What Can People Do To Help?

Read the clues to learn some ways that people can help:

1. support scientific _____ that will help us understand and save our planet
2. _____ your old plastic toys, and buy secondhand toys
3. instead of celebrating a birthday with _____, try paper streamers or banners
4. drink out of a refillable water _____
5. buy things in bulk to cut down on plastic _____
6. _____ as many plastic items as you can
7. shop with a reusable _____ grocery bag
8. when lighting campfires, use wooden _____ instead of lighters

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