



Waste and disposables (Single Use products) - Information Guide

General notes for the delivery of educational content:

- A. Opening - defining the subject
- B. Presenting the problem (through discussion or advocacy)
- C. How it affects us and the environment (over the short and long term)
- D. Existing solutions + suggestions for solutions on an individual level

Duration: about 12 minutes

Duration (min)	Topic	Content
1	What are disposable products and why are they bad?	<p>Definition: A product that is used only once before being thrown away.</p> <p>Products intended for single use produce huge amounts of trash, both in their production and as consumer waste. Additionally, most disposable products are made from synthetic materials, which are inexpensive to manufacture. Recycling these type of materials is difficult, requires more resources, and is often not cost-effective.</p> <p>The result: more trash going to landfill.</p>
2	Types disposable products	<p><i>Guidance notes: Ask people which disposable products they are familiar with. Afterwards, deepen their knowledge and add that, many of these products did not exist until a few decades ago. Now, disposables flood our daily lives. In order to remove them from our lifestyle, we need to make conscious changes.</i></p> <p>Some basic examples: Daily hygiene: wet wipes, floss, diapers, feminine hygiene products, disposable masks and gloves. Kitchen: disposable cutlery, cups, plates and bowls, non-woven fabric and nylon tablecloths, disposable shopping bags, drinking straws.</p> <p><i>Topics to expand upon:</i> <i>These are just a few examples from daily life that affect us all. We can also expand the discussion and examine what is happening across industries and medicine, where (for the sake of hygiene) whole teams are wearing gloves, masks, robes and hair covers, and in many cases these are one-time use only rather than multi-use (disposable vs. reusable).</i></p>



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7	<p>How do disposables harm both the marine environment and humans? (problems)</p>	<p><i>Guidance notes: Can be held as a group discussion. Afterwards, present the facts while illustrating how this will affect our future.</i></p> <p>Disposable items are waste, and waste must be treated: First, it must go to a treatment plant; and the more we use, the more area is needed – as can be seen with "Hiria" (due to the consensus at the time, the waste was not treated properly and was sent to landfill). Second, it is important that toxic chemicals, which waste (mostly plastic), do not get into the groundwater. Remember, plastic is a collective name for many chemical and synthetic materials. And it decomposes under the sun's radiation, leaking chemicals as it breaks down and becoming microplastics and nanoplastics.</p> <p>When we do not collect our waste, and ensure it reaches appropriate treatment facilities, it gets left behind in our environment. Then it can be transported by water/wind, spread away and pollutes the air, land, and sea.</p> <p>Our trash is a problem and a nuisance as it harms our landscape, disturbs and endangers animals (mistaken for food, causing physical injuries, changing ecological conditions and more), and it can also get back to us through the food web.</p> <p>* As of 2018, the rate of plastic production is 300 million tons per year. Every year, about 8 million tons of garbage are dumped into the oceans. This is a quantity equivalent to emptying an entire garbage truck every minute.</p> <p>Microplastic particles and waste reach the sea in various ways such as: floods, sewage systems and industrial effluents, runoff in rivers, and more.</p> <p>* Microplastics harm us as well. In order to understand how we need to have a look at the marine ecosystem: various animals (from zooplankton to apex predators) consume plastic products and microplastic particles, if by direct eating or through prey. Next some of us consume those animals as food. Humans generally base their diet on bigger animals, which are on a higher trophic level, thus expose to high amounts of plastic particles that danger one's health</p> <p>Data from recent years indicates that each year each person consumes an average of 74,000 micro-plastic particles, most of them through food and drinking water, with the rest via the air.</p> <p>(Microplastic particles clog the intestines and digestive system, and the toxic substances absorb into the body.)</p> <p>* In recent years, whales and birds have been found dead due to debris consumption. Plastic bags and parts and other debris can be mistaken for their natural prey and when eaten, fills their stomachs so that the whales have no room for nutritious foods and the birds are so heavy they can't fly.</p>



Duration (min)	Topic	Content
	<p><i>Problems continue:</i></p>	<p>* Plastic is as an external hazard as well. Probably some of you are familiar with the images of sea turtles whose bodies are distorted into the shape of an hourglass, because of plastic rings they got stuck in at a young age, or the seahorse who drifted away because it clung to a cotton bud instead of a coral branch. Waste can physically wound and even drown animals who need to surface in order to breathe.</p> <p>* The waste problem is not only here on the beaches, it's also in everywhere in the oceans, from the surface to the seabed. In recent years, researchers have identified plastic and microplastic deposits that are affected by ocean water currents. In the Pacific Ocean, there is a garbage island about 80 times larger than the state of Israel. Today we estimate that plastics in the oceans have reached a mass of 80,000 tons, an inconceivable number. And as we mentioned - waste drifts. 80% of the waste in the sea comes from land, and only 20% from vessels.</p> <p>Due to the structure of the Mediterranean basin, the microplastic concentration in the Israeli territorial waters is 10 times greater than the western part of the Mediterranean (higher than the world average). The fact that Israel is ranked second in the world for the use of disposable products per capita may add to the problem. If we do not act now, according to forecasts, by 2050 there will be a greater mass of plastic in the sea than that of fishes.</p> <p>* Manufacturing disposable products (plastic and non-plastic) impacts the environment extensively and consumes massive amount of resources, including oil. At every stage, from resource extraction, production, use, and waste, single use products are harmful.</p> <p>* Compostable disposable products require very specific conditions or factories (that usually do not exist) for decomposition, and in reality, are part of the problem (become waste) and not part of the solution: consume resources, use land inefficiently, pollute the surrounding and may contribute to greenhouse gas emissions.</p> <p>* Disposable are constantly being purchased as replacements, thus creating a cycle of waste. The treatment of this waste causes the taxes you pay to be higher. So they are causing direct and indirect harm to your bank account.</p> <p>We want to preserve and conserve nature and the environment for the welfare and health of future generations (of all organisms)</p> <p>The choice is ours! Say NO to single use products and invest in sustainable and reusable alternatives.</p>



Duration (min)	Topic	Content
2	Ways to avoid and reduce disposables products: Actions at the personal level and at the general level (The solutions)	<p><i>Guidance notes: try to lead to a short discussion, let them share ideas and solutions: e.g. education, taxes, legislations and fines.</i></p> <ol style="list-style-type: none">1. Refuse (do you really need this item? For example, straws, Q-tips)2. Reduce3. Reuse (and Repair)4. Back to nature (Return): People today have forgotten how to live without disposable products. But until 50 years ago, these products didn't exist. It might be worthwhile to create a short parable that tells how our grandparents, or even our parents, grew up, how they conducted their daily lives without nylon bags, plastic straws, etc. This point of view shows that change does not have to be by technological advance, but that this way of life has existed in the past for everyone.5. Education6. Taxes on disposable products7. Better adherence to law enforcement of littering on beaches etc. <p><i>(FYI more R's: Recycle, Re-purpose, Rot)</i></p>