



Topic 4

Reducing Waste

World Sailing Sustainability
Education Programme

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Welcome to the World Sailing Sustainability Education Programme!

World Sailing started in 1907 in Paris and is the world governing body for the sport of sailing. The organisation promotes sailing internationally, manages the sailing at the Olympics and Paralympics, develops the racing rules of sailing, and supports sailors from all over the world.

World Sailing is formed of national authorities in 145 countries as well as 115 classes of boat. World Sailing wants its sailors to share their love of sailing, while working together to protect the waters of the world. Sailing is part of a global movement to create change and positive impact, and you can be a part of this through your actions, on and off the water.

To help sailors do this, there is a plan, called World Sailing's Sustainability Agenda 2030. This plan describes changes within sailing that will help achieve the United Nations Sustainable Development Goals and maximise the positive effect that sailors can have on the environment.

What are the Sustainable Development Goals?

The United Nations Sustainable Development Goals were published in 2015 to end extreme poverty, fight inequality and injustice and combat climate change by 2030. There are 17 goals that 193 countries have committed to. In **Topic 4: Reducing Waste** you will work with the following goals:



You can access World Sailing's Sustainability Agenda 2030 at the following link: bit.ly/2sjGrKZ

World Sailing's Sustainability Agenda 2030 is aligned with the 5 focus areas of the IOC's Sustainability Strategy



Infrastructure and natural sites



Sourcing and resource management



Workforce



Mobility



Climate

Topics

In Topic 4, you will be introduced to:

- **Types of waste and waste hierarchy**
- **Plastic pollution generated by sailors and sailing clubs**
- **The circular economy**
- **Ways that waste on boats and in sailing clubs can be reduced**
- **Ideas and changes to reduce plastic waste on boats and in sailing clubs**

Topic 1	Race with World Sailing!
Topic 2	Resources & Climate Change
Topic 3	Navigating Wildlife & Biodiversity
Topic 4	Reducing Waste
Topic 5	Oil & Fuel
Topic 6	Boat Cleaning & Maintenance

Glossary



Waste

Items we don't need anymore and want to throw away.



Compost

Organic material that has been broken down by microorganisms and oxygen.



Hierarchy

A group of things or people in order of power or importance.



Biodegradable

Something that can be broken down into small parts by other living things (like bacteria).



Circular economy

A system that aims to create no waste by continuing to reuse materials again and again.



Groundwater

The water found underground in the cracks and spaces in soil, sand and rock.



Let's get under way!



What is waste?

Think about your day so far. What have you eaten? Have you or your family bought anything? Have you cleaned a boat? What rubbish has been generated at the sailing club? How many items have you thrown away?

Around one-third of the food produced for us to eat gets wasted¹.

Less than a fifth of plastic is recycled globally².



Liquid waste like dirty water, organic liquid from food, wash water, detergents and even rainwater. If there are chemicals or other harmful material in it, it can be difficult to reuse.

There are so many items in our homes and sailing clubs that are **solid waste**. Things like paper/card, metals, ceramics and glass are mostly recyclable and reusable.

Organic waste is all food scraps, garden cuttings and manure. If you dispose of organic matter in a landfill, it breaks down with no oxygen and this creates methane which is a greenhouse gas and contributes to climate change (learn more about climate change in Topic 2!). It is best to compost, either at home or you may have a local compost collection.

Waste that can be transformed into another product for use again is **recyclable**. Paper into toilet paper, metal into boat masts and plastic into boat parts!

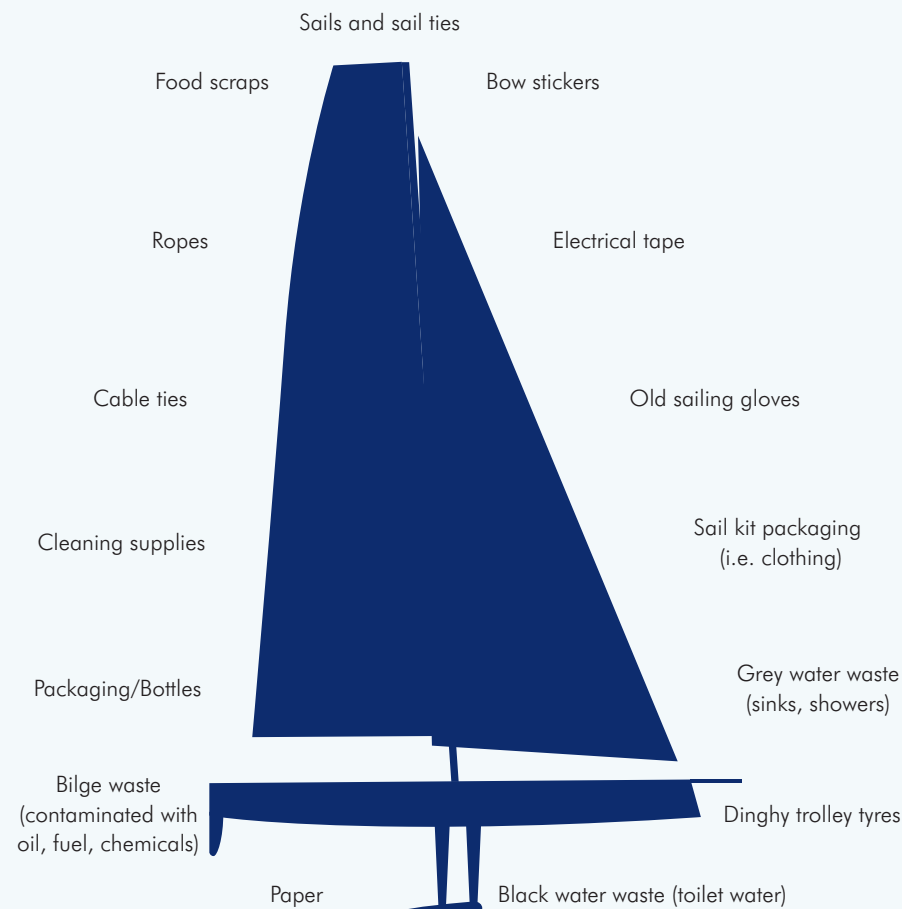
Hazardous waste are items that can harm you and the environment and must be disposed of correctly. Always let an adult do this. It includes items like batteries, engine oil and cleaning products. Batteries should never be put into a bin that goes to landfill.

80% of pollution to the marine environment comes from land-based pollution, like surface runoff and plastics³.

Plastic pollution causes the deaths of more than a million seabirds every year, as well as more than 100,000 marine mammals⁴.

Did you know that most of the waste that ends up in the sea is because it is not secure on the land? If there are strong winds or flooding, waste gets washed into the ocean. Take a look around the club - are the bins overflowing? Are items tied down and secured properly? We also need to think about what we use while we are sailing or in the club. A lot of waste can be generated if we aren't being top sustainable sailors.

Waste: On the boat, in the club



Our waste, our water



When waste ends up in the water, it doesn't disappear. It floats on the surface or sinks to the floor of a lake, river or ocean and animals can eat it, mistaking it for food or become entangled in it. Plastic breaks down into smaller pieces of plastic, called microplastics. Microplastics will spread all over the ocean in currents and are found everywhere in the aquatic ecosystem. Being a top sustainable sailor not only means disposing of your waste responsibly, but thinking about waste as a resource too!



Sadly plastic pollution is increasing, even if general awareness of the problem has been highlighted by many sailors. This is why World Sailing signed the UN Environment's Clean Seas initiative, joining the Olympics to unite sport in tackling plastic pollution and stop using single-use plastic. From 2019, World Sailing has not used single-use plastic at its events and will continue this commitment.

Plastic is produced from petroleum products and using them contributes directly to carbon emissions and climate change. Saying no to single-use plastic reduces waste and carbon emissions.

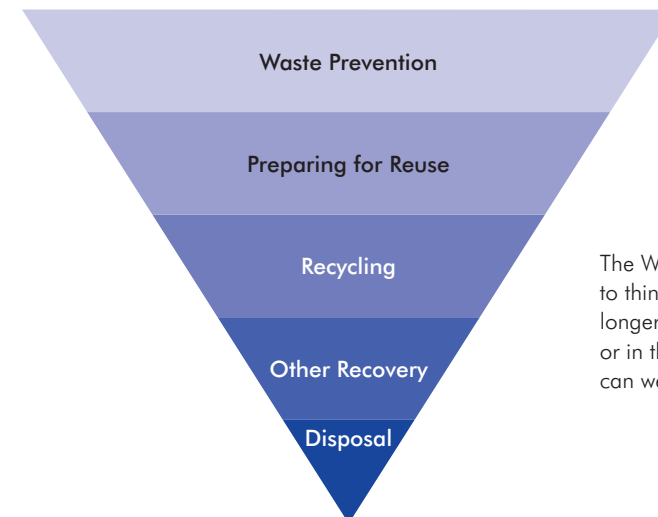
To learn how to be an Ocean Hero and tackle plastic pollution where you are, check out World Sailing's Ocean Heroes initiative:

worldsailingoceanheroes.com

What is a landfill?

A landfill is a place where waste is taken to be buried underground. Before it is buried, it might be sorted to see if there is anything that can be recycled, but it is very hard to find recyclable material this way. You usually find landfills far from where people live because they smell very bad. There are also more serious problems with landfills. Some waste, such as electronic appliances, contains toxic material. If they are buried, they can soak into the soil and groundwater. If organic waste is sent to landfill and buried, it does not get oxygen. The waste starts to breakdown and releases methane which is a very strong greenhouse gas (stronger than CO₂!). Waste in a landfill takes a very long time to break down and creates problems for future generations. It is important to start thinking of waste differently so that we can take care of our environment and ourselves, and be more sustainable. In many places around the world, we are simply running out of space for landfill sites.

In Topic 2 we learnt about the 6R's (Rethink, Refuse, Reduce, Reuse, Recycle, Replace), helping us to be top sustainable sailors. The Waste Hierarchy lists the different options for what we can do with waste, from least to most sustainable.



The Waste Hierarchy is important to think about when we no longer need an item on our boat or in the club. So, crew? How can we Reduce and Reuse?

Waste hierarchy

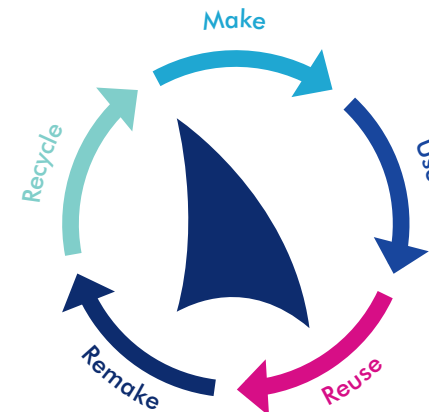
- Think about what you bring onboard. Buy items that have little or no packaging.
- Reuse some of your plastic (like strong bags) to store items onboard and in the club.
- Reuse old ropes for things like securing flags and banners.
- Donate old sails for reuse and recycling.
- Use reusable cloths to clean boats.
- Use biodegradable cleaning products and detergents - or make your own with baking soda and vinegar!
- Take soap and shampoo bars onboard if you will be staying on a big boat; there is no need for plastic bottles.
- Buy food locally and loosely (not wrapped in plastic!) where possible.
- If you don't have a water filter onboard and need to use bottled water, buy very large bottles (e.g. 20 litres) and a pump.
- All dinghy sailors should have a reusable water bottle as part of their kit. Make sure you can secure it to the boat in case of a capsized!
- No balloons for a sailing club party! These can fly away and the plastic will end up in the ocean.
- Collect all waste onboard and separate it when you return to the club. You can decide what can be reused. Never throw it overboard!
- Compost as much food and garden waste as you can.
- For boats with engines, use oil collection pads in the bilges and dispose of them properly ashore (in many countries, these count as hazardous waste).
- Use toilets on-shore whenever possible.
- If you are sailing offshore, use a holding tank if you have 1 fitted and empty at least 3 miles from shore if you cannot use a pump-out facility.
- Avoid discharging sewage close to shore and in sensitive habitats.
- When refuelling or carrying out maintenance, take great care not to allow oil and fuel to enter the water.



Waste is not always waste!

Dame Ellen MacArthur

Dame Ellen MacArthur is a retired sailor, who sailed non-stop around the world in the Vendée Globe when she was only 24 years old. She competed in many top sailing races and in 2005 became the fastest person in the world to sail around the world singlehanded! She really understood what it is like to have to rely on a limited amount of resources while at sea and after she finished her sailing career, she started The Ellen MacArthur Foundation which works across business, government, education and communications, with the goal of creating a circular economy. Learn more about her work at www.ellenmacarthurfoundation.org



The circular economy system will help us be more sustainable with the products we buy and use. An item doesn't have to immediately become waste and be thrown away. Let's take a look at some cool ways that plastic and old fishing nets have been reused!

The Flipflop

In 2016, a group of fishermen in Lamu, Kenya, built a boat entirely from plastic they had collected from beaches and roadsides. Using over 10 tonnes (5 times the weight of a blue whale's tongue!) of plastic waste and 30,000 flip flops, the 'Flipflop' made her first sailing expedition (which was over 500km from Kenya to Tanzania) in 2019. The Flip Flop will be embarking on an expedition around Lake Victoria, the largest fresh water lake in Africa, crossing three countries in July 2020. Check out www.theflipflop.com to learn more about this amazing boat and the message it is spreading about single-use plastics and ocean stewardship.



Plastic Bank

The Plastic Bank was founded in 2013 to get people thinking of plastic as a resource, not as waste. It operates in Haiti, Indonesia and the Philippines, focussing on waste that is bound for the ocean. Communities are encouraged to appreciate that this plastic is too valuable to throw away, allowing them to exchange it for money. This plastic is then recycled as other products.



'Ghost' nets are lost or abandoned fishing nets. They are one of the most harmful types of marine waste; they can last for hundreds of years, drifting through the ocean and continuing to kill wildlife which is a huge threat to the marine ecosystem.

If fishing nets are recovered from the ocean, they can often be recycled to make useful products such as sunglasses and nets for sports.

How is the sailing community helping to reduce waste?

Check out some of the great initiatives by sailing organisations, that reuse waste for new products!

World Sailing: Competition bibs made from reused ocean plastic

World Sailing needs bibs for its events so that it is easy to identify the country a sailor is from, as well as whether they are in the lead or not. You will see at the Olympics, the sailor currently winning out of all the races is wearing a yellow bib. World Sailing now uses bibs made from recycled ocean plastic. 80% of the bib is made from plastic collected at the beach; the sailors love it!



At the 2019 Miami World Cup, sailors were asked to bring any old or damaged wetsuits that could no longer be used. All of these wetsuits (and other items such as boots made from the same material as the wetsuits) were collected by World Sailing and sent to a company in the same country to be made into yoga mats. This is a great example of the circular economy in action!

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Ellen MacArthur

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Photos

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