MARINE CONSERVATION SOCIETY

Activities for Cubs

Action for the ocean

No matter where you live, you can help keep our seas clean

You will need

- Maps or atlases of the UK or access to Google Earth
- Items collected on a litter pick (cleaned) or photographs of them
- Marine Litter image reel
- 7 Rs worksheet and Waste Funnel
- Recording sheets from a litter pick
- Social media template

What to do

Map your route to the ocean

Most of the litter in the ocean comes from the land. It's washed or blown into rivers or drains and from there, transported to the sea. In the UK, we're never more than 70 miles from the sea. In this activity, follow the route litter could take from your location to the coast.

1. Using Google Earth or a map, everyone should find their location.
2. Then find the nearest river.
3. If using a map, follow the river to the mouth (the estuary) and then locate the entrance to the sea.
4. If using Google Earth, type the name of the nearest river into the search bar. Click 'more information' to find the mouth of the river, where it enters the ocean. Type this into the search bar to see the location on the map. This route is how litter could reach the ocean.

Consider the impact of litter on ocean life

1. The person leading the activity should set out a selection of items collected on a litter pick.
2. As a group, talk about how each item could affect marine animals. The image reel contains pictures and information about the impact of items commonly found in the environment.

   Please note - The leader of the activity should decide what to share from the reel. The pictures might be distressing for some people and it might be more appropriate to talk about impact rather than look at the images.

Image: Callum Blacoe on Unsplash

Take a personal action to reduce litter

Some litter in the ocean and on beaches was disposed of correctly but escaped from refuse trucks or landfill sites. Reducing the amount of waste we produce is key to reducing litter.

1. Divide into small groups and cut out and match up the 7Rs worksheet.
2. As a group, discuss the Waste Funnel. Everyone should think of one thing they will change in their life to reduce the amount of waste they create.
3. Everyone should take their action for a week and report back on progress at the next meeting. Talk about whether it was possible to keep to the change. Could these actions form the basis of an anti-litter campaign?

Plan an anti-litter campaign

Look at the recording sheets from a litter pick you've carried out and identify the most common item of litter. Create a campaign to reduce the amount of this item in the environment, for example:

- write to the company that makes the item asking them to change their packaging
- petition your council for bins and street cleaning
- make a presentation in school about the problem in your area and solutions
- if the item comes from a particular location, write to the business explaining the problem being created
- write to your MP asking for changes
- use your own or your friends' and families' social media accounts to show people the problem. (You could use the social media template)

Reflection

This activity is about understanding the imapct our actions can have on the world around. Can you think of other ways that we affect places we can't see? What could you do to reduce your negative impact on the world?

Image: Callum Blacoe on Unsplash

Marine Litter Fact File

From source to sea

It is estimated that 11 million tonnes of plastic ends up in the sea worldwide each year (1), and that 80% of litter found in the sea is from inland sources (2).

Sources on land can include intentional and accidental littering, items flushed down toilets, sinks and drains, windblown litter from bins and landfills, and litter carried by rainwater into drains, rivers and eventually the sea. Litter is also a problem at sea, with sources like fishing, sailing, speed boats, commercial ships and container spills causing litter pollution.

Natasha Ewins

Natasha Ewins

Litter timeline

Litter in the ocean takes longer to degrade than litter on land, but will eventually start to break up due to wave action, currents, saltwater and sunlight. Degradation time varies greatly depending on the properties of the litter.

Microplastics are a serious environmental issue. They are plastics that have broken up into pieces less than 5mm. However, some plastics enter the environment this size already - like microfibres and plastic nurdles. Nurdles are the small plastic pellets used in the production of plastic products.

1. Pew, 2020
2. Europa, 2016

MARINE CONSERVATION SOCIETY

Marine Litter Fact File

Marine life and litter

Litter items can cause harm to all sorts of marine life, from tiny plankton to huge whales.

Animals can become entangled in litter, causing injury, reduced mobility and even death. Ingestion of litter, particularly plastic, is very problematic for marine life as they are unable to digest it. Large amounts of plastic ingestion can lead to starvation, as there is no room left for food. One study found 100% of turtles sampled to have plastic in their stomach (3). In some areas, the extreme amount of plastic on the sea floor can suffocate the animals and plants living there.

Invasive species
Ocean currents can move plastics around the world. Small animals and plants can hitch a ride on the surface of plastic and travel with the currents, introducing non-native species to new areas. The introduction of non-native species could cause harm to the ecosystem.

Plastic chemicals
Several chemicals used in the production of plastic materials are carcinogenic. Toxic contaminants can also accumulate on the surface of plastic materials that have broken up and been underwater for a long time. When marine animals ingest plastic accidentally, these toxic contaminants enter their digestive systems and could build up in the food web over time.

Gannet carrying fishing rope
JHS Archer-Thomson

Microplastic pieces within seaweed
Natasha Ewins

3. Duncan *et al.*, 2018

MARINE CONSERVATION SOCIETY

Marine Litter Fact File

Litter surveys

Litter surveys are not only important for clearing rubbish, but also for gathering data on the types of litter polluting our environment. Beachwatch is our national beach clean and survey initiative, and has been running for nearly 30 years. Our brilliant volunteers head out to beaches across the UK to clean and survey our coastline, collecting and recording the rubbish they find within a 100m stretch of beach. This litter data helps inform our campaigns and lobby government, and has led to influential changes like the UK-wide carrier bag charge, microbead bans and changes to wet wipe packaging.

We also use the data to determine the sources of litter. For example, if a significant amount of sewage-related debris (SRD) is found in an area, we work with local sewage treatment companies to try to improve treatment plants, and with communities to raise awareness of what should and shouldn't be flushed down the toilet.

Reducing litter

We all need to do our bit to reduce litter in the environment. By rethinking how we shop and what we use in our daily lives, we can all make a difference. Refusing unnecessary plastic and other materials, reducing the amount of products we consume, and repairing rather than replacing are all important actions we can take. Through education, we can help raise awareness, encourage positive consumer behaviour, and campaign for change from businesses and the government.


Natasha Ewins

Aled Llywelyn

MARINE CONSERVATION SOCIETY

Marine Litter Fact File

Recycling

Even if we reduce the number of items we use, we will still need to throw some away. This is where efficient recycling is key. Download a guide from your local council to help students understand what can be recycled at home and at school. Many items can be recycled, but if your local council has limited recycling options check out Terracycle's website for local drop-off points.

Plastics can only be recycled at best 2-3 times before they lose their strength, so we still need to move away from plastics to materials that can be recycled time and time again. We need to change how products are recycled, and how we incentivise best practice to ensure materials and resources are valued. This could include redesigning products or calling for economic incentives like Deposit Return Schemes (DRS), where a small deposit is paid when consumers buy a single-use drinks container and is refunded when they return it to a store or dedicated recycling point.

Circular economy

We currently have an economy which is linear, which means we make, use and dispose of products using up finite resources. It's estimated that only 9% of all plastic ever made has been recycled (4), so we know that recycling alone isn't the solution. Instead we need to move towards a circular economy, where products are designed to be used time and again, repairable, or re-purposed as new products. The whole life cycle of the product has been considered, so very little ends up in landfill.

Litter collected at a beach clean
Natasha Ewins

Single-use plastic straws
Natasha Ewins

4. Geyer *et al.*, 2017

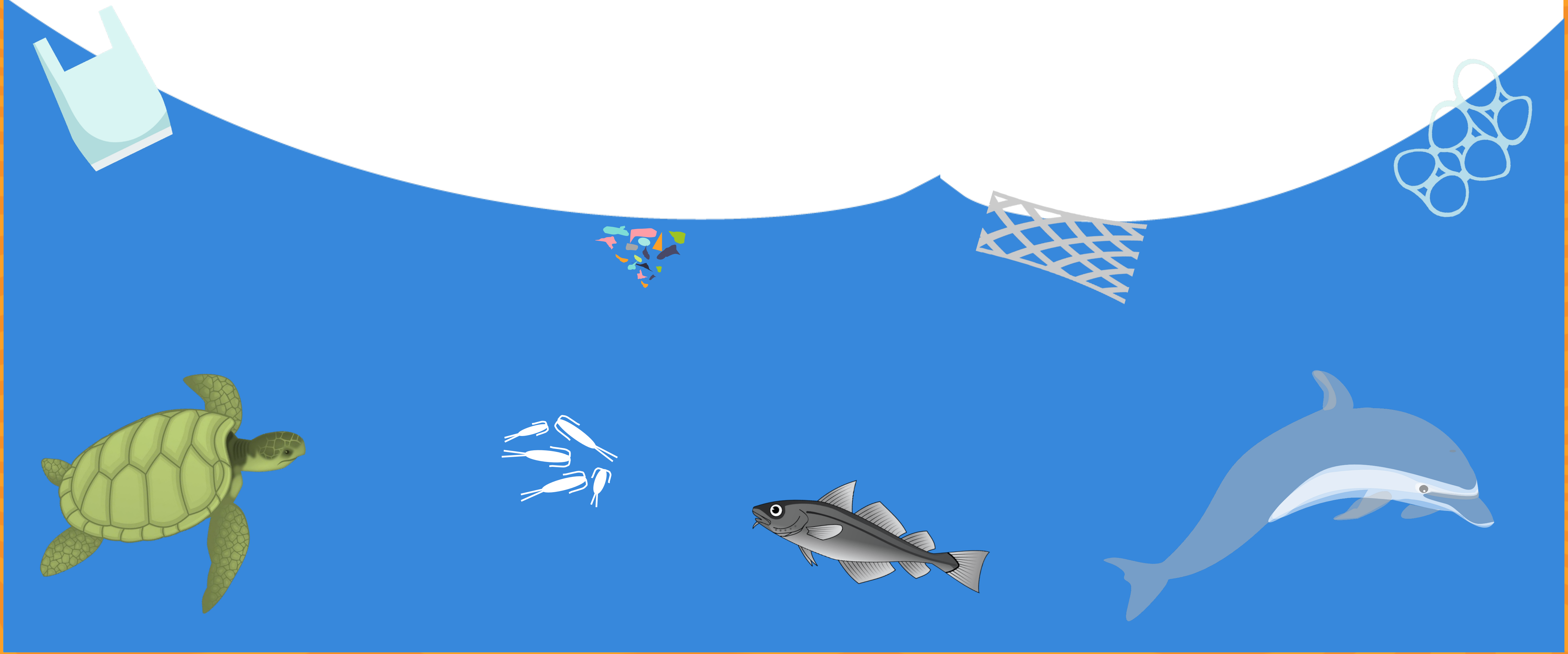
MARINE CONSERVATION SOCIETY

Marine Litter Image Reel

Litter reaches the ocean in a number of ways: it's washed in from our rivers, is left on our beaches, or is cast overboard from boats.

Marine Life vs Marine Litter

How does litter harm wildlife?



Marine life

Litter items can cause harm to all sorts of marine life, from tiny plankton to whales. Ingestion of litter, particularly plastic, is very problematic for marine life who are unable to digest it.

Marine life

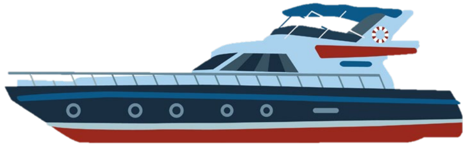
Animals can become entangled in litter, causing injury, reduced mobility and even death.

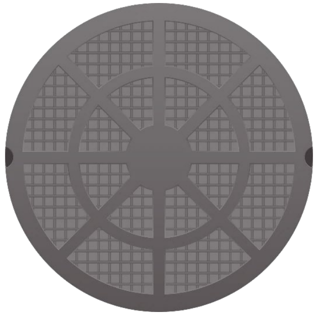
Microplastic pollution

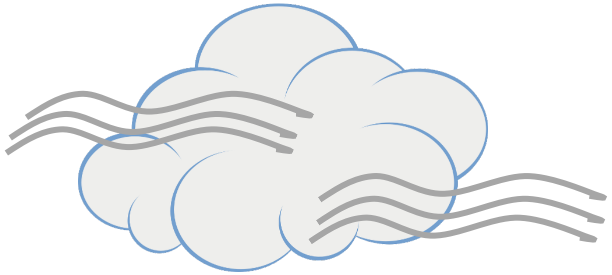
Microplastics are a serious environmental issue. They are plastics that have broken up into pieces smaller than 5mm, as well as pieces that enter the environment this size like microfibres or plastic nurdles, which are the small plastic pellets used in the production of plastic products.

Sources

How does litter travel to the ocean?







Man & Boat via Freepix

Marine litter sources

Inland sources of litter can include intentional and accidental littering, items flushed down toilets, sinks and drains, windblown litter from bins and landfill, and litter carried by rainwater into drains rivers and eventually the sea.

Marine litter sources

Litter is also a problem at sea, with sources like fishing, sailing, speed boats, commercial ships and container spills causing litter pollution.


Brian Yurasits

Andy Pearson

Litter timeline

Litter in the ocean takes longer to degrade than litter on land, but will eventually start to break up due to wave action, currents, saltwater and sunlight.

Natasha Ewins

Flockine

Litter timeline

Degradation time varies greatly from 1–450 years depending on the properties of the litter.

Litter surveys

Litter surveys are not only important for clearing rubbish, but also for gathering data on the types of litter polluting our environment.

Litter surveys

We all need to do our bit to reduce litter in the environment. By rethinking how we shop and what we use in our daily lives, we can all make a difference.


Marta Ortigosa


Natasha Ewins

Litter surveys

Refusing unnecessary plastic and other materials, reducing the amount of products we consume, and repairing rather than replacing are all important actions we can take.

Cut boxes along dotted lines

MARINE CONSERVATION SOCIETY

Rethink	Always question the choices you make. Could you do things differently in your life so that you use less resources and create less waste?
Refuse	Identify single-use items that you can refuse, like straws and water bottles. Keep looking for new items to refuse.
Reduce	Cut down on the things you buy and the energy you use. By using less, we can cut down the amount of waste sent to landfill and stop it from becoming litter.
Repair	When something breaks see if it can be repaired and used again instead of buying a new one. This stops the old item becoming waste and means energy and resources don't need to be used to make a new one. Win, win.
Reuse	Can the product be used again for another purpose? By reusing what you already have or finding a new use for it, like using a tin can as a pencil pot, you stop the item becoming waste. It also means you don't have to buy something new.
Recycle	By recycling products whenever possible something new can be made from the materials and you stop them going to landfill.
Rot	If you can't repair, reuse or recycle the item, use a bin. Depending on where you live, this may then be sent to landfill or incinerated. Plastic, remember, will never rot away.

Waste Funnel

Reducing our waste means less landfill/ incineration and less litter

MARINE CONSERVATION SOCIETY

Source to Sea Litter Quest

80% of the litter we find in our ocean comes from inland sources.
Your survey will help track litter items from source to sea.

MARINE CONSERVATION SOCIETY

About your survey

Where did you clean?

Town	☐	River	☐
Countryside	☐	Playground	☐
Park	☐	Office grounds	☐
Street	☐	School grounds	☐

First half of your postcode:

How many bags of litter did you fill?

Weight of litter (kg):

About your group

How many people are in your group?

Is your group taking part as a:

School group? ☐ Youth group? ☐

What is the age range of those taking part?

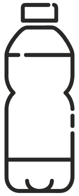
Are you taking part as part of an organisation?

What is the weirdest thing you found?

Try to recycle the litter you collect if you can, but always keep yourself safe!

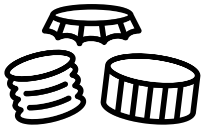
What to do - Spot the litter, write down what you found, then pick it up.
You can use a tally to keep track as you go along.

Plastic drink bottles



How many? ....

Loose plastic bottle caps/lids

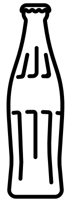


How many? ....

Plastic drink cups

How many? ....

Glass bottles

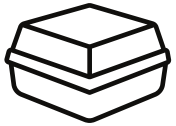


How many? ....

Metal drink cans

How many? ....

Polystyrene fast food container

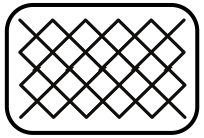


How many? ....

Paper cups

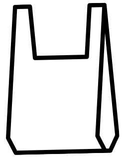
How many? ....

Disposable BBQs



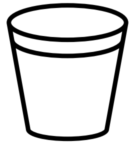
How many? ....

Single-use plastic bags



How many? ....

Polystyrene cups

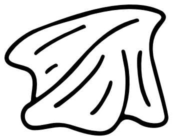


How many? ....

Plastic bags for life

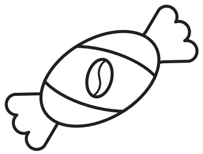
How many? ....

Wet wipes



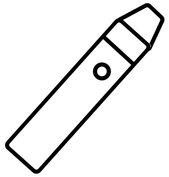
How many? ....

Packets e.g. crisps, sweets



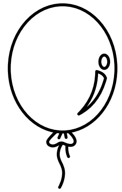
How many? ....

Vapes



How many? ....

Balloons



How many? ....

Don't drop litter!

Write and draw your message in the square below. Think about:

- What do you want people to know?
- What can people do?
- How can you grab people’s attention?

Share the message

Take a photo of your picture and ask people you know with social media to post it on their accounts.