

## Upstream Battle – Source to Sea Litter

### Background

It's estimated that up to 12.7 million tonnes of plastic gets into the sea each and every year – that's a truck full of litter a minute. It's killing wildlife, threatening ecosystems and habitats, exacerbating the impacts of climate change and extremely difficult and expensive to clean up.

Many initiatives that tackle marine litter are targeted at cleaning up our beaches or trying to remove litter from the sea once it's there. But, as 80% of all marine litter comes from land, we also need to face this problem upstream, where litter is washed into gutters, blown into streams or carelessly discarded. We can all play a role in **stopping this cycle of litter, preventing it from entering the sea in the first place and protecting our water resources.**

This resource is designed to support lessons on Source to Sea litter with signposts to relevant resources, activities to extend learning, ideas for action and suggestions of ways to share your thoughts and findings. The topics covered also connect well with several of the Sustainable Development Goals including: Life Below Water, Life on Land and Responsible Production and Consumption.

### Suggested Activities and Resources

#### Investigate the problem

- Support pupils to investigate the source to sea pathway of marine litter in your local area. This could be in the form of a drawing, map, creative story, poem, [photo board](#) or research report.
- Investigate litter levels in your school neighbourhood by taking part in an [Upstream Battle survey](#). Download the presentation and instructions from our School Upstream Battle Week of Action webpage.
  - If you cannot reach a suitable stretch of waterway to complete the survey, the [litter audit](#) is an alternative survey for use in school grounds and surrounding areas. Areas to explore further on completion of the audit include the possible routes in which this litter could make its way to the ocean and possible solutions.
- Investigate the impact of litter pollution on wildlife, the ocean and human health. This visual [case study](#) from Photographer Chris Jordan records the impact of marine plastics on Albatross chicks nesting on Midway Atoll, in the Pacific. How might the litter found in your own survey impact the environment?
- Key topics discussed in the lesson that could be explored further in class:
  - Have you noticed litter when on holiday? How are other cities or countries affected by and tackling litter?
- Investigate the abundance of plastic accumulation throughout the oceans. The [North Pacific](#) and [North Atlantic](#) Garbage Patch's could be used as case studies.

## Discover solutions

- As a class, pledge one action to carry out as individuals, as a school, and at home to help tackle the problem of marine litter.
- Organise a [clean-up](#) as a great way to get the whole school involved in making a difference in your community.
- The circular economy aims to minimise waste and make the most of resources, re-using or recycling wherever possible to close the loop of single use, disposable products. Encourage pupils to identify ways they can help support a circular economy. There are lots of educational resources on this topic at the [Ellen MacArthur Foundation](#). The pupil led video '[Source local, Buy local](#)' from Mackies could also be used as a case study.
- Organise a One Planet Picnic at school to celebrate food that is good for you and good for the planet. Explore ways in which you could reduce food waste and packaging - there are lots of ideas and inspiration [here](#) to help you get started.
- Explore technologies, jobs and skills required to tackle the source to sea litter problem. This learning opportunity can be extended by providing opportunities for pupils to interview relevant people within the local community (see local [case study](#) from Stirling City Council for inspiration).
- Develop a litter/environmental policy focused on the reduction and prevention of waste in your establishment and wider community.

## Share your thoughts and findings

- A clean up is a great opportunity for [measuring](#) progress over time. Record your findings after each litter pick and share your results with others. Our partners The Helping Hand Company offer a discount to schools purchasing litter picking equipment. [Use the Helping Hands order form](#) with the discount already applied.
- Issues to discuss as a school community could include the types of litter found, the likely sources and possible solutions. You could also display the proportion of litter which could be recycled.
- Count and create a graph, showing the number of each litter item found (e.g. glass, plastic, paper, cans).
- As a class, create a piece of art which helps to explain the problem of marine litter and/or explains what you will do to help solve it. Try to upcycle or reuse as many items as possible as part of the design.
- Organise a film night or art exhibition to share your ideas and creations with the wider school community. You can find more inspiration on our website from previous litter campaigns such as the [Sip Don't Tip exhibit](#) at the Gallery of Modern Art, our [Marine Pathways art competition](#) with Blair Drummond Safari Park in 2018 and the [Upstream Battle Marine Litter art competition 2019](#).
- Produce a map showing the path of marine litter from source to sea.
- Write a poem or song to perform to the rest of the school in a marine litter assembly.

