

Fishing For Litter



Marine Litter

Marine life



Credit Alan Morris Getty Images



Municipalities for Sustainable Seas



Recommended
Duration:
Number of participants

Ages 5-7 years
90 minutes
Max 33 pupils

Overview:

Marine Litter and Wildlife explores the effect of plastic litter on seabirds in a two-part hands-on team activity. Students pair up as seabird parents and participate in a feeding frenzy. Will they manage to feed their young, and what happens if they eat plastic marine litter by mistake?

Learning Objectives:

To understand that plastic marine litter can harm marine wildlife by using the example of seabirds ingesting plastic.

Curriculum Links:

Topical Science, Human Impact, U.K. Wildlife, Food Chain

Preparation and resources:

Resources Provided:

The RSPB [Meet the Fulmars: The U.K's mini albatrosses.](#)

[Fulmar Food Dash Worksheet](#)

[Marine Litter Marine Life Picture Reel.](#)

Resources Needed:

1. Hula Hoop or masking tape to great a circle to represent a fulmar nest.
2. Food tokens in four different colours (red, blue, green, and black for example), ten to twenty pieces of each colour per group. These could be crayons, Lego pieces, coloured cards, or cut-up string or wool.
3. Stopwatch

Fulmar Feeding Frenzy

Setting the Scene:

📺 Meet the fulmars: the UK's mini albatrosses

The Northern Fulmars are a gull-sized grey and white bird. They are one of the commonest seabirds in northern Britain and are present year-round, particularly in Scotland which is home to around 97% of the UK population.

Fulmars feed at sea. They are not fussy. They eat a variety of food from the sea surface, ranging from tiny surface-dwelling sea animals such as [plankton](#) and small fish to fishy discards from fishing boats. They have also been known to eat floating plastic litter. Scientists studying fulmars around the coast of the UK have found plastic pieces in the stomachs of most birds they have inspected. Plastics can't be digested, it fills their stomachs leaving less room for proper food. This can make the fulmars very ill, and eventually, they may starve.

Activity: Fulmar Food Dash

30 Minutes

Groups 2/3

Part One:

The class pretend to be Fulmar parents feeding their chick.

1. Set up a round nest using a hoop or masking tape.
Each nest needs two parents, and one chick (optional).
2. Place the food tokens— with colours mixed up – 4 / 5 meters away from the nest.
3. Each parent takes turns to run and grab food for their chick. Only one parent can leave the nest at a time.
4. Start the clock.
5. See how much food each team can collect in 1 minute.
6. Each group must now record the number of food tokens by colour and the total number of tokens collected on the [worksheet](#) provided.

Part Two:

Look at the food in the nest, and choose a colour whereby some nests have more of this colour than others. Let's say RED! RED tokens now represent plastic bottle caps. Each group with three or more red tokens has eaten too much plastic. Their stomachs feel full, but they are weak and unable to fly properly.

1. Repeat the Food Dash. Each group with three or more RED tokens must hop on one leg this time.
2. Start the clock.
3. See how much food each team can collect in 1 minute.
4. Count the number of food tokens and compare with the first Food Dash.
5. Each group must now record the number of food tokens by colour and the total number of tokens collected on the [worksheet](#) provided.

Part Three:

Choose another colour and number of food tokens whereby all the class has now ingested plastic. Let's say three BLUE food tokens! Blue tokens now represent pieces of fishing ropes and nets.

1. Repeat the Food Dash. Teams with three or more Blue tokens must now hop on one leg, and teams with three or more RED and BLUE tokens have eaten too much plastic and can no longer fly. They can no longer collect food for their chicks.
2. Each group must now record the total number of food pieces by colour and the total number of pieces collected on the [worksheet](#) provided.

Observations and Discussion:

Compare the number of Food Tokens collected in Food Dash one, two, and three. Why are the Fulmars collecting less food? How will this affect their chicks?

Optional Discussion Topics:

Plastic in Seabirds

Today, 4 out of 5 seabirds (80%) have plastic in their stomachs. Scientists predict that all seabirds will have plastic in their stomachs in the future*. Surface-feeding seabirds such as Fulmars and Albatrosses ([picture reel, slides 2 and 3](#)) are likelier to eat floating plastic litter. Plastic inside seabirds includes bags, bottle caps, strings and ropes, and tiny pieces of broken-down plastics called [microplastics](#). When birds eat too much plastic it fills their stomach, leaving little room for food, making them ill and causing them to starve. Parent birds feed their chicks with plastic that they have mistaken for food. The chicks eat the plastic and are less likely to grow into adulthood. Some birds may also use marine litter to build their nests. Fulmar nests on the coast of Scotland have been found lined with fishing lines and plastic ropes ([Picture reel slide 3](#)).

Reflect:

Why is plastic dangerous to seabirds? Are there other ways plastic can harm marine wildlife ([Picture reel slides 4 and 5](#))? How can we prevent plastic from entering the ocean?

*[Threat of plastic pollution to seabirds is global, pervasive, and increasing](#)

Chris Wilcox, Erik Van Sebille, and Britta Denise Hardesty, 2015, PNAS

Further Learning:

[KIMO Lesson Plan: Marine Litter: Lost at Sea](#)

Recommended 7-11-year-olds with recommendations for simple fun activities for 5-7-year-olds.

Plastic Lost at Sea explores what happens to marine litter in the ocean through three interactive activities; two simple floating and sinking experiments, and an interactive exercise, '[Plastic Adrift](#)', which simulates a real-life event in 1992 where 29,000 rubber ducks were lost at sea.

Inspiring books for primary school children on marine plastic;

Age 4-7

Somebody Swallowed Stanley - Sarah Roberts

'This is a wonderful book that follows the cycle of a mysteriously individual jellyfish-like creature named Stanley as he travels through the ocean. As he meets other sea creatures, differences between him and them start to become apparent – like his two handles and colourful stripes. Various creatures swallow Stanley as he tenaciously continues on his journey until he is found by a human, on the shore, who chooses to put Stanley to much better use. A fun and brightly illustrated picture book with a clear message that plastic does not belong in the sea.'

<https://www.booksfortopics.com/>

A Planet Full of Plastic - Neal Layton

'Our world is drowning in plastic, and it's a big problem. Award-winning author-illustrator Neal Layton is here to explain where plastic comes from, why it doesn't biodegrade, and why that's dangerous for animals and humans alike. But he's also FULL of ideas for how you can help! From giving up straws in juice cartons to recycling all we can and taking part in a beach clean, A Planet Full of Plastic will get young readers excited about how they can make a difference to keep Planet Earth happy. This brilliant non-fiction picture book, illustrated in Neal's trademark collage style, is perfect for readers aged 4-7 who love nature and want to help the environment.'

<https://www.booksfortopics.com/>

Age 7-11

Nellie Choc-Ice and the Plastic Island - Jeremy Strong & Jamie Smith

'Nellie Choc-Ice is a well-travelled penguin, who also happens to be slightly accident-prone. While attempting to get home via a series of mishaps, she comes across an island that blocks her path. The island is entirely made of plastic rubbish in the ocean. The story makes it clear that plastic is putting wildlife in danger and that it must be cleared up. This is a funny and accessible first chapter book addressing an important issue, with a super-readable and child-friendly format that makes it perfect for newly independent readers.'

<https://www.booksfortopics.com/>

What A Waste: Rubbish, Recycling, and Protecting our Planet - Jess French

'This is an informative book with a high visual appeal. It covers different aspects of reducing waste, with a large emphasis on plastics. Information is presented through diagrams, accessible text, illustrations and photographs. A highly recommendable non-fiction book that will challenge KS2 pupils to make small lifestyle changes that collectively can make a big impact on our planet.'

<https://www.booksfortopics.com/>

Glossary:

Plankton

Plankton are a collection of tiny living things that live at and beneath the surface of lakes, rivers, ponds, and oceans across the planet. Plankton consists of plant-like phytoplankton, and tiny animals called zooplankton.

Fulmar Food Dash Worksheet

[illegible]