

Plastic pollution: lesson 2 of 4

Plastic and ocean life

How plastic harms sea
animals, and the people who
help



Photo: Naja Bertolt Jensen



What washes up on our beaches?

After beach clean-ups, MCP volunteers sort and count what they find, so they know which kinds of rubbish are most common.

Cigarette butts are one of the most common things found. Most filters are made of a type of plastic, and they are full of chemicals.

What do you think is the most common rubbish on beaches near you?



Cigarette butts collected and weighed at an MCP beach clean-up. Photo: MCP



How many animals are affected?

914

species of sea animals have been recorded tangled in or eating ocean litter, most of it plastic

7 of 7

sea turtle species have been found eating plastic



Tangled

Animals get caught in fishing nets, rope, fishing line and packing straps. Tangled animals can't swim, feed or escape predators.

Lost or dumped fishing nets are called ghost nets. They keep catching animals for years.



A ghost net on a reef. Photo: MCP



Try this: how hard is it to escape?

1. Put a rubber band around the back of one hand, over your thumb and little finger.
2. Now try to get it off using only that hand. No teeth, no other hand, no rubbing on the table!
3. How long did it take? How did it feel?
4. Now imagine you are a turtle or a seal with a net around your neck.

Keep it safe

Use a loose rubber band.

Stop straight away if it hurts or your fingers go pale.



Mistaken for food



Turtles

A floating plastic bag can look like a jellyfish, a favourite food for some turtles.



Seabirds

Many seabirds pick bits of plastic from the surface and feed them to their chicks.



Fish

Small fish and plankton swallow tiny pieces of plastic that are the same size as their food.



Microplastics

Microplastics are pieces of plastic smaller than 5 millimetres, about the size of a grain of rice or smaller.

They come from bigger plastic breaking up, from fibres washed out of clothes, and from tiny pellets used to make plastic things.

They have been found in fish, shellfish, salt and drinking water. Scientists are still working out what they do to our health.



Photo: Da Shika



Microplastic hunt

1. Collect a cup of sand from the high-tide line on a beach, or a cup of soil from the schoolyard.
2. Tip it into a clear jar of water and stir. Most plastic floats, and sand sinks.
3. Pour the water through a sieve or a piece of cloth.
4. Use tweezers to pick out anything that looks like plastic.
5. Sort and count what you find on your record sheet.

Look for

Fragments: hard broken bits

Fibres: tiny threads

Film: thin, soft pieces

Foam: squashy white bits

Pellets: small round beads



Ocean heroes

All over the Philippines, people are fighting back: volunteers clean beaches, divers cut ghost nets off reefs, and communities stop plastic from reaching rivers.

Your task: write a short story about an ocean hero. It could be an animal saved from plastic, or a person or a whole village making a difference.



An MCP diver removing a ghost net. Photo: MCP



Talk about it

Which is worse for sea animals, big plastic or microplastics? Why?

How did the rubber band challenge feel?

What surprised you in the microplastic hunt?

Who are the ocean heroes in your community?

Next time: how much plastic do we use?



Photos and sources

Photos: beach clean-up, cigarette butts, ghost nets and turtle by MCP. Underwater plastic by Naja Bertolt Jensen. Microplastics by Da Shika. All illustrations drawn for this lesson by Marine Conservation Philippines.

Sources:

- Kühn, S. and van Franeker, J.A. (2020). Marine Pollution Bulletin.
- Lebreton, L. and others (2018). Scientific Reports.
- Marine Conservation Philippines.

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