

From chocolate to the ocean

Adapt the series to your coast · Help sheet for Lessons 2 and 4

with Dr Pendo Maro

Lessons 1 and 3 work anywhere. Lessons 2 and 4 use examples from Belgium and the Belgian part of the North Sea. This sheet shows you what to change so that these two lessons talk about your own sea, your own animals and the people who act where you live.

What stays the same: the stages, the timings, the activities, the experiment and the questions. **What you change:** the examples. One local animal, one local protected area and one local rule are enough to make the lesson feel close to home.

Before you start: three steps

1. **Find your sea.** Which sea or ocean is closest to your school? If you are far from the coast, start from your nearest river and ask where it flows: litter travels to the sea along rivers.
2. **Find your regional sea agreement.** Most seas have one, and its reports are a good source of facts. Examples: OSPAR (North-East Atlantic and North Sea), HELCOM (Baltic Sea), the Barcelona Convention (Mediterranean), the Nairobi Convention (Western Indian Ocean), the Cartagena Convention (Wider Caribbean). UNEP's Regional Seas Programme lists them all.
3. **Gather three local facts** before you change anything: one animal, one protected area, one rule about plastic or waste.

Lesson 2: What is happening in the ocean?

In the Belgian version	What to look for on your coast	Where to look
Slide 2: three North Sea animals (harbour porpoise, fulmar, seal)	Three animals that live in your sea, at least one that learners already know	Your national marine or fisheries institute, a natural history museum or aquarium; OBIS (obis.org) for records of species by area
Card A: the fulmar swallows plastic	An animal in your sea that swallows plastic: a seabird, a sea turtle or a fish	The litter reports of your regional sea agreement; marine conservation organisations
Card B: the harbour porpoise caught in nets	An animal caught in fishing nets in your waters, for example dolphins, sea turtles, dugongs or seals	Your national fisheries authority; conservation organisations working on bycatch
Card C: warmer, more acidic water (corals and shellfish)	Keep the card and the experiment. Choose the local example: coral reefs in tropical seas, mussels, oysters or other shellfish in cooler seas	Your national marine institute; reef or shellfish monitoring programmes
Questions and answers: Belgian figures (about 4,000 porpoises, plastic in fulmars)	Figures for your own sea, only from a source you trust	If you cannot find a reliable local figure, keep the general point and leave the number out

Lesson 4: Who is taking action, and how?

In the Belgian version	What to look for on your coast	Where to look
The European Union: single-use plastic ban, attached bottle caps	The rules on plastic in your country, for example a ban on plastic bags or straws	Your environment ministry's website
Belgium: protected areas and three marine reserve zones (2026)	The marine protected areas off your coast	Protected Planet (protectedplanet.net), the world database of protected areas, which has a map
Countries around the world: the global plastics treaty talks	Keep as it is: this is the same everywhere	UNEP, the UN Environment Programme
The local council and Bruxelles-Propreté	Your local authority's waste and recycling service	Your town or district website
Scientists: porpoises counted from a plane, litter counted on beaches	What scientists study on your coast	Your national marine institute or a local university
Charities: Surfrider, beach clean-ups	Local groups that organise clean-ups or school activities	Local environmental groups; the International Coastal Cleanup, held every September (Ocean Conservancy, Clean Swell app)
Clean-up: compare the class tally with OSPAR beach data	Data on beach litter in your region	Your regional sea agreement, or the International Coastal Cleanup results

Check your facts

1. Use official or scientific sources, and note the date of each one.
2. Present figures as approximate ("about", "more than") unless the source gives an exact number.
3. If two sources disagree, use the more recent one and say so in your notes, as the Lesson 4 guide does for the Belgian protected areas.
4. Keep the tone of the series: facts, not fear. Every problem is matched with something that helps.

Share your version. The series is under a CC BY-NC 4.0 licence: you may adapt it for teaching, as long as you keep the credit and do not sell it. Please add a line such as "Adapted for [place] by [name]". I would love to see your version and hear how it went: pendo@drpendomaro.com, subject "Education series – From chocolate to the ocean".