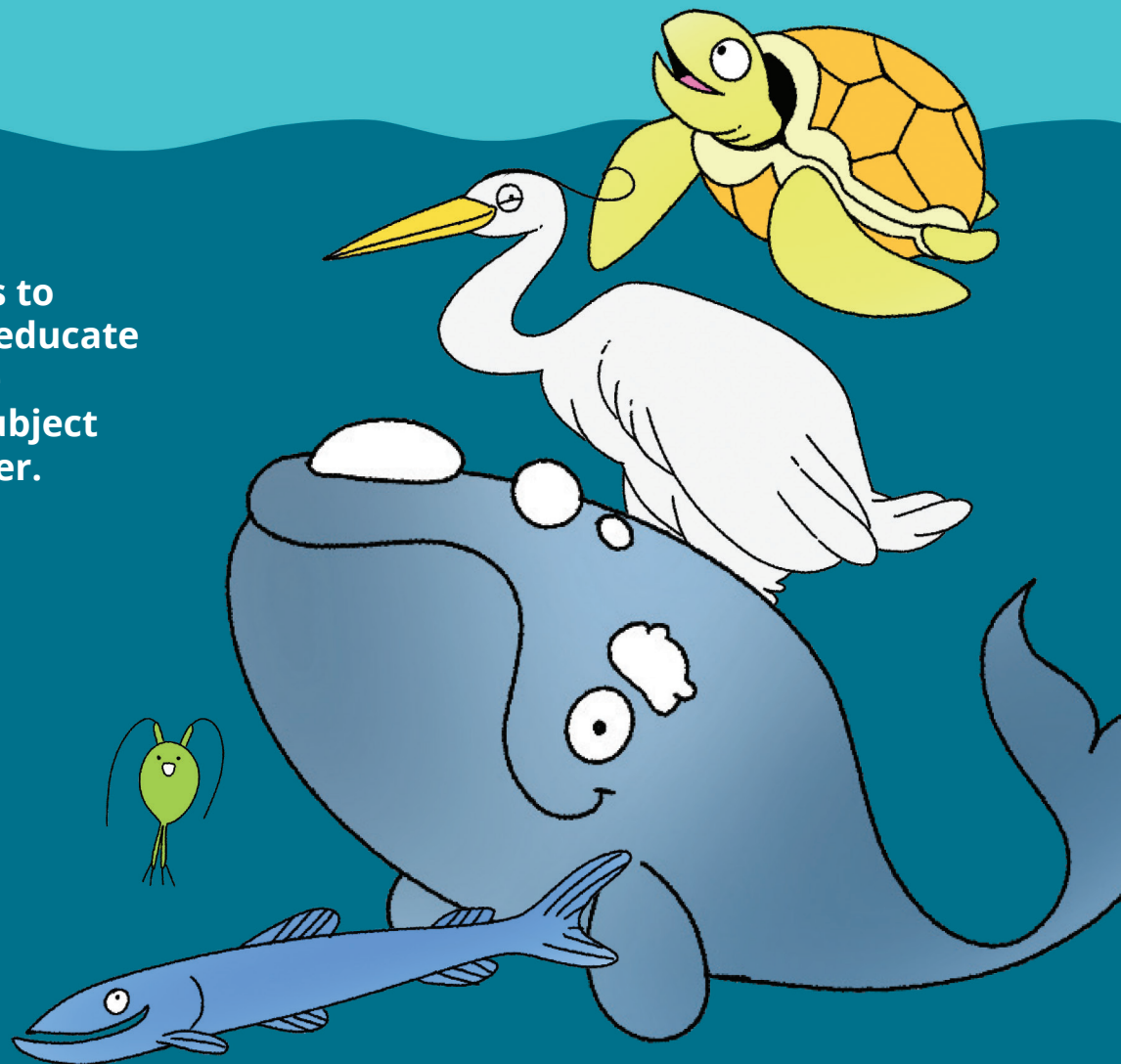




Community Pack

Level 1
Vanuatu

3 lesson plans to
help engage, educate
and influence
around the subject
of marine litter.



Department
for Environment
Food & Rural Affairs



Centre for Environment
Fisheries & Aquaculture
Science



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Lesson 1: What is marine litter?

This lesson will give an introduction to marine litter and the problems that it causes to marine ecosystems.

Marine litter or marine debris is defined as any persistent, manufactured or processed solid material discarded, disposed of, abandoned or lost in the marine and coastal environment.

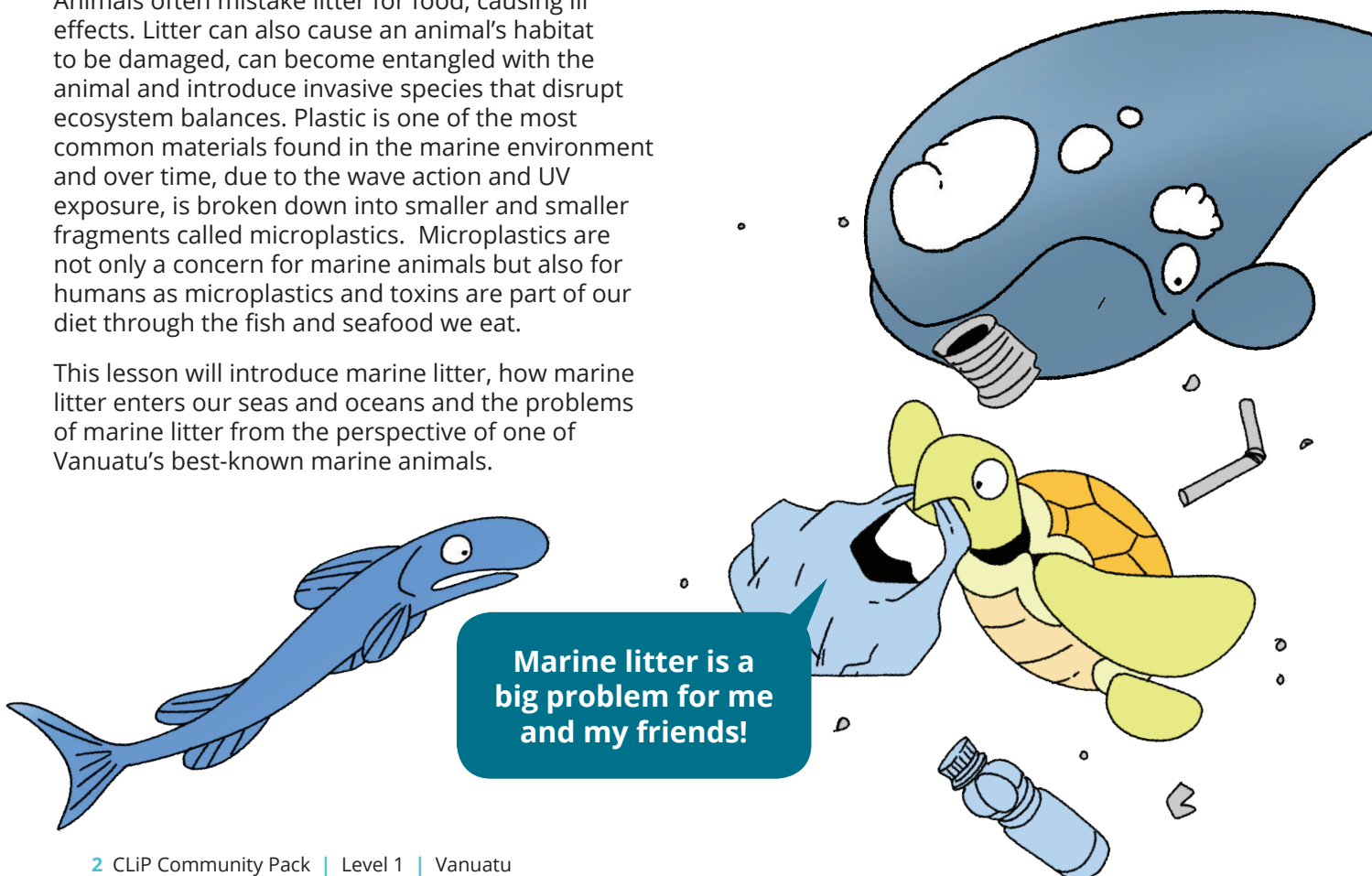
You may ask, how does it get there? Litter ultimately comes from humans. We use something, discard it and unless it enters landfill or is recycled, it ends up on the ground and could find its way to the sea. The most common way is by transport from rivers, sewage and storm outfalls. It also can enter the marine environment by being blown by winds or by being abandoned directly in the sea (as with fishing gear). Marine litter has been found in almost all marine environments on the planet and causes serious problems for marine life.

Animals often mistake litter for food, causing ill effects. Litter can also cause an animal's habitat to be damaged, can become entangled with the animal and introduce invasive species that disrupt ecosystem balances. Plastic is one of the most common materials found in the marine environment and over time, due to the wave action and UV exposure, is broken down into smaller and smaller fragments called microplastics. Microplastics are not only a concern for marine animals but also for humans as microplastics and toxins are part of our diet through the fish and seafood we eat.

This lesson will introduce marine litter, how marine litter enters our seas and oceans and the problems of marine litter from the perspective of one of Vanuatu's best-known marine animals.

Additional Resources

- [Two Minutes on Oceans w/ Jim Toomey: Marine Litter](#)
- [National Geographic- Kids Take Action Against Ocean Plastic](#)
- [It's Okay to be Smart- How Much Plastic is in the Ocean?](#)
- [Ocean Heroes: 5 Gyres - Problem With Plastics](#)
- [Trash vortex \(Artistic film\)](#)



Marine Litter Factsheet

Marine Litter is any item that humans have discarded that ends up on our beaches, or in our rivers, seas and oceans.

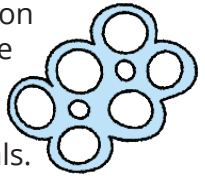
How does it get there?

Litter comes from humans. We use something, discard it and unless it is recycled or sent to landfill, it ends up on the ground and could find its way to the sea. The most common way is by transport from rivers, sewage and storm outfalls. It can also enter the marine environment by being blown by winds or by being thrown directly in the sea.



Plastic is the most common type of marine litter and includes a wide range of materials.

Plastic bottles, food wrappers and abandoned fishing gear are among the most common items globally. In the sea, plastics break down into small fragments called microplastics.



Glass is the second most common material found on beaches. It mostly comes from bottles.



Metal is another common category. Aluminium drinks cans and other metal objects are another common item found on the beach and in our seas.

Marine Litter Can Cause serious damage to marine life!

Animals can mistake litter for food



© Alamy

Marine litter can cause damage to animals' surroundings



© Shutterstock

Animals can become entangled in marine litter



© Shutterstock

Marine litter can carry invasive species



© Matt Ecklund

Activity: What are things made of?

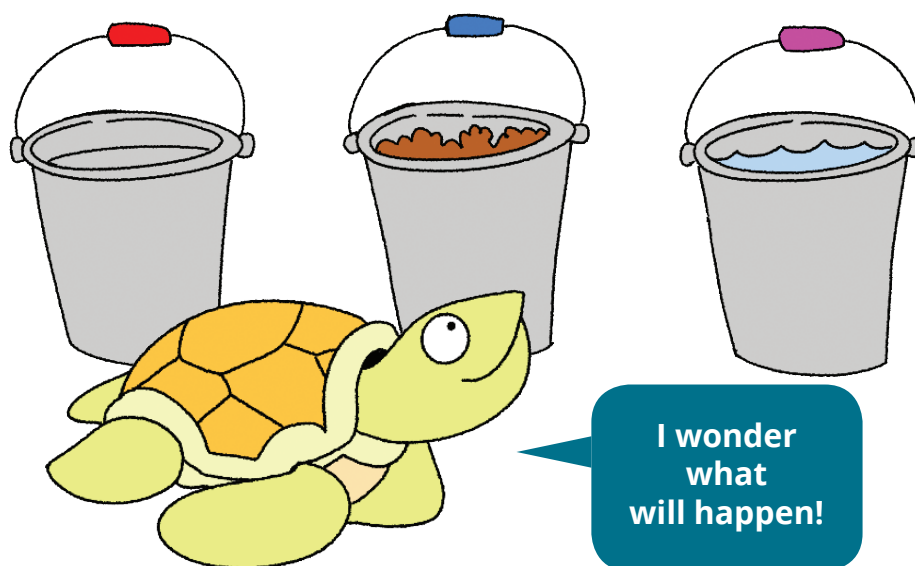
The aim of this activity is to create awareness of different materials using student's senses and to compare natural items to synthetic items. Students will explore what happens to these items in water (float or sink?) and over time (do they break up, rust, biodegrade or remain unchanged?) and record this in a table.

You will need:

- A variety of materials found from around the school/ community centre. These should include a mix of man-made and natural items, hard and soft, flexible and stiff.
- 3 buckets
- Soil
- Water
- Pencils and Paper

Instructions:

Work with your group to in turn select each object and use your senses to describe the item: where did it come from? What do you use it for? How long do you normally use this item for? If space permits, set up three buckets or containers; one with soil, one with water and one empty. Place some items in each bucket and predict what you think will happen to those items, writing your observations in the table on the next page. Revisit items in one month to see what has changed and record your observations.



Worksheet

Item description	What do you think will happen over time ?	What did happen over time?

A black and white line drawing of a busy underwater scene. The background is filled with numerous small, simple line drawings of sea creatures, including various types of fish, a turtle, a squid, a crab, and a starfish. Interspersed among these creatures are various household objects, such as a vacuum cleaner, a broom, a mop, a bucket, a bottle, a can, a box, a key, a spoon, a fork, a knife, a pencil, a ruler, a string, a net, a basket, a bag, a hat, a shoe, a sock, a glove, a scarf, a hat, a shoe, a sock, a glove, a scarf, a hat, a shoe, a sock, a glove, a scarf. The scene is depicted with many small bubbles and wavy lines representing water. The overall style is whimsical and playful, with a focus on the contrast between nature and human-made objects.

Lesson 2: Marine Litter in Vanuatu

This lesson will help students explore marine litter in the Pacific, focused around a field trip and beach clean. Other options would be to carry out a river or community clean up!

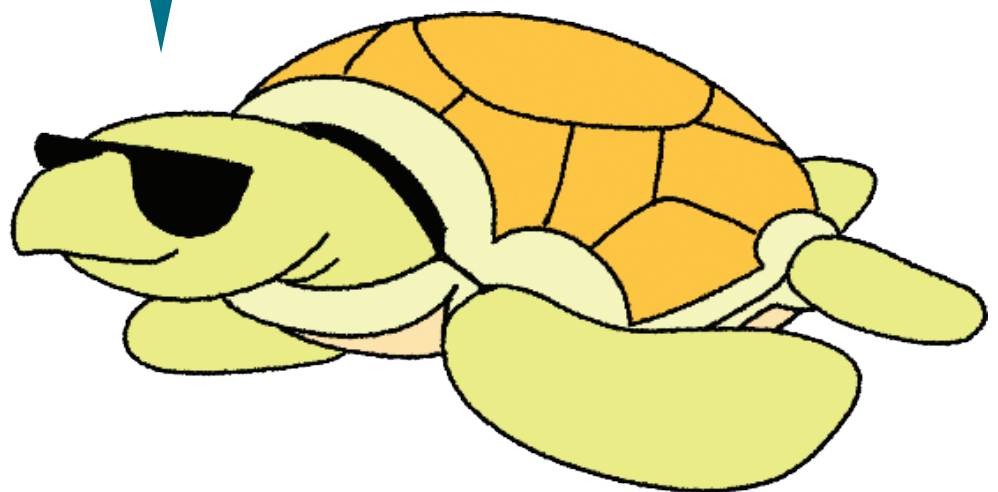
Beach, river or community clean ups are a great way to make students aware of the marine litter that is present in their local environment. It is important to remind your students that litter doesn't have to be dropped on a beach or in the sea to be found in the marine environment. Rivers, drains, wind and rain can transport rubbish from the land to the sea so it is just as educational to carry out a clean up by a river or on the land. Recording the type and number of litter items found can also be fed into national and global programmes to help understand the sources of litter to the area. There are lots of recording platforms that you can feed into and more

information on beach cleans is available on the internet. Please ensure that you have carried out appropriate health and safety risk assessments to carry out this activity.

Resources

- <https://www.mcsuk.org/beachwatch/organisers>
- https://www.ospar.org/ospar-data/10-02e_beachlitter%20guideline_english%20only.pdf

I love a day
at the beach
– if it's clean!



Activity: Beach field-trip and categorisation exercise

The aim of this exercise is to get out and about to a local beach to see marine litter first hand and record the types of litter you find. Remember if you don't live near a beach, you can clean a river bank or even your community area!

You will need:

- Beach, River or Village
- Notebooks and pencils
- Completed Health and Safety Risk Assessment

Instructions:

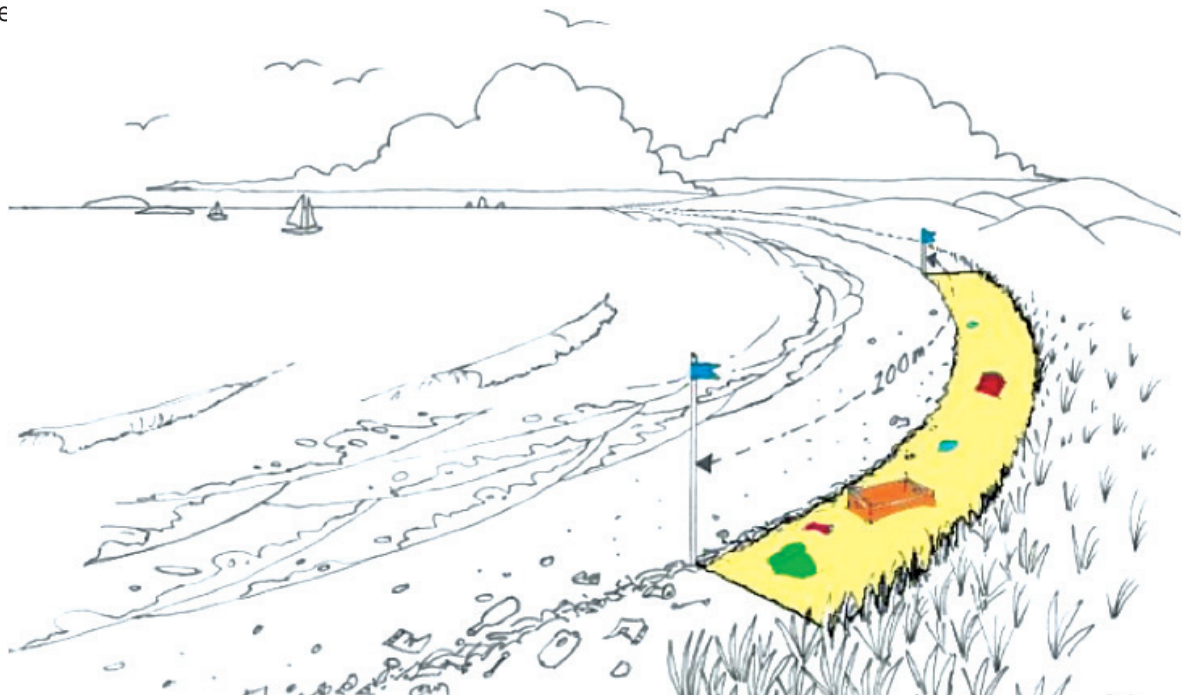
Select a local beach, ensuring that you have permission from the land owner for access. Check the tide times and select a date and time for 2 hours or more after high tide, and not on an incoming tide.

At the beach, select a 100m stretch of beach and mark out the area to survey. This should run from the standline (the high-tide mark where you often get a collection of shells and where the sand changes colour) to the back of the beach where

Organise your students in groups and ask them to pick up and record and tally all the marine litter they find in the designated area described above. Ask the students to create categories based on what the items are made of and create sub-categories if needed. The table on the following page can be used as inspiration if needed.

Once completed, make sure you dispose of the rubbish responsibly and bring a selection of clean, safe litter items back to the classroom for additional activities and lesson 3.

Back in the classroom, collate all the records from the groups of students, creating counts from the tallies of items. Older students can draw graphs to identify the most common categories. Reflect upon your findings. Is this what you were expecting? What was the most commonly recorded item? Is this item something that your students use from day to day? was the most



© Marine Conservation Society

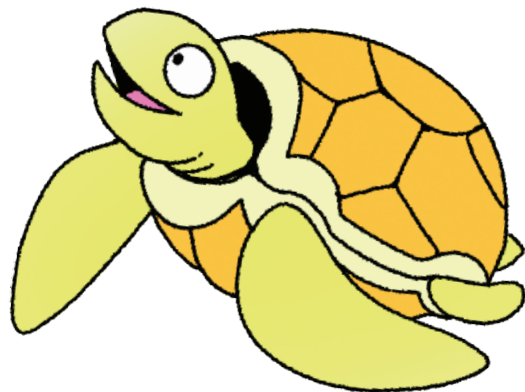
What did you find on the beach?

Plastic	Plastic food container	
	Plastic bottles	
	Plastic straws	
	Fishing gear	
Metal	Drinks can	
Rubber		
Glass		
Wood		
Cloth		

See if you can recreate the CLiP crew from some of the litter you found at the beach today!



Wow, it's me!



Lesson 3: Solutions?

This lesson will explore solutions to the marine litter issue and help your group to understand how their actions can help.

It is really important that we all help to reduce the amount of litter in our country that enters the marine environment. In the first lesson, we learnt the difference between natural and synthetic materials. Years ago, our ancestors would drop their rubbish on the ground. However, our ancestors were using natural materials like leaves and coconut husks that over time would biodegrade and become one with the soil. Materials we use these days are increasingly synthetic, which can last a really long time so we must put these items in the bin. Plastic can take up to 1000 years to disappear!

There are three actions that individuals can do to help reduce the amount of plastic that enters the marine environment: Reduce, Re-use and Recycle. Start the lesson by introducing students to these ideas that can be implemented in Vanuatu.

Reduce:

You can reduce the number of single-use items that you use. Simple ways to do this are:

- bring a reusable bag to the shop when you buy your groceries
- bring water from home in a reusable water bottle
- don't use plastic straws.

Reuse:

There are many ways that you can creatively use things that you may otherwise throw away. Can you think of someone else that would be able to use it? Can you re-purpose it for another use?

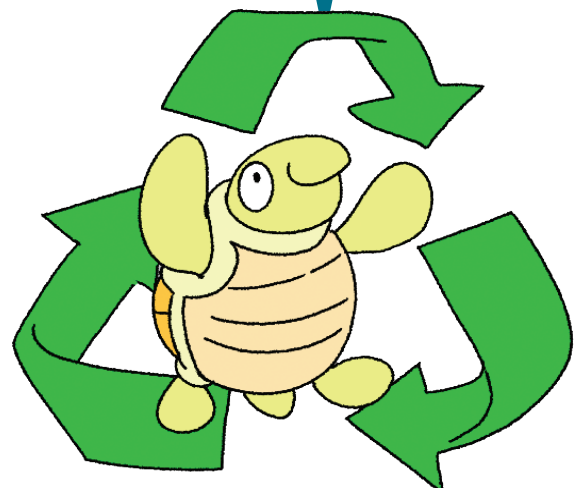
Recycle:

Many of the items that end up in our landfill sites can be re-made into other items. Check with your local area which items can be sent for recycling and make sure to separate these from your rubbish.

Resources

- [Reduce, Reuse, Recycle lesson ideas](#)
- [Reduce, Reuse and Recycle, to enjoy a better life](#)
- [The Three R's for Kids](#)

**Remember the 3 R's:
Reduce, Reuse, Recycle!**



Activity: Reduce, Re-use, Recycle game

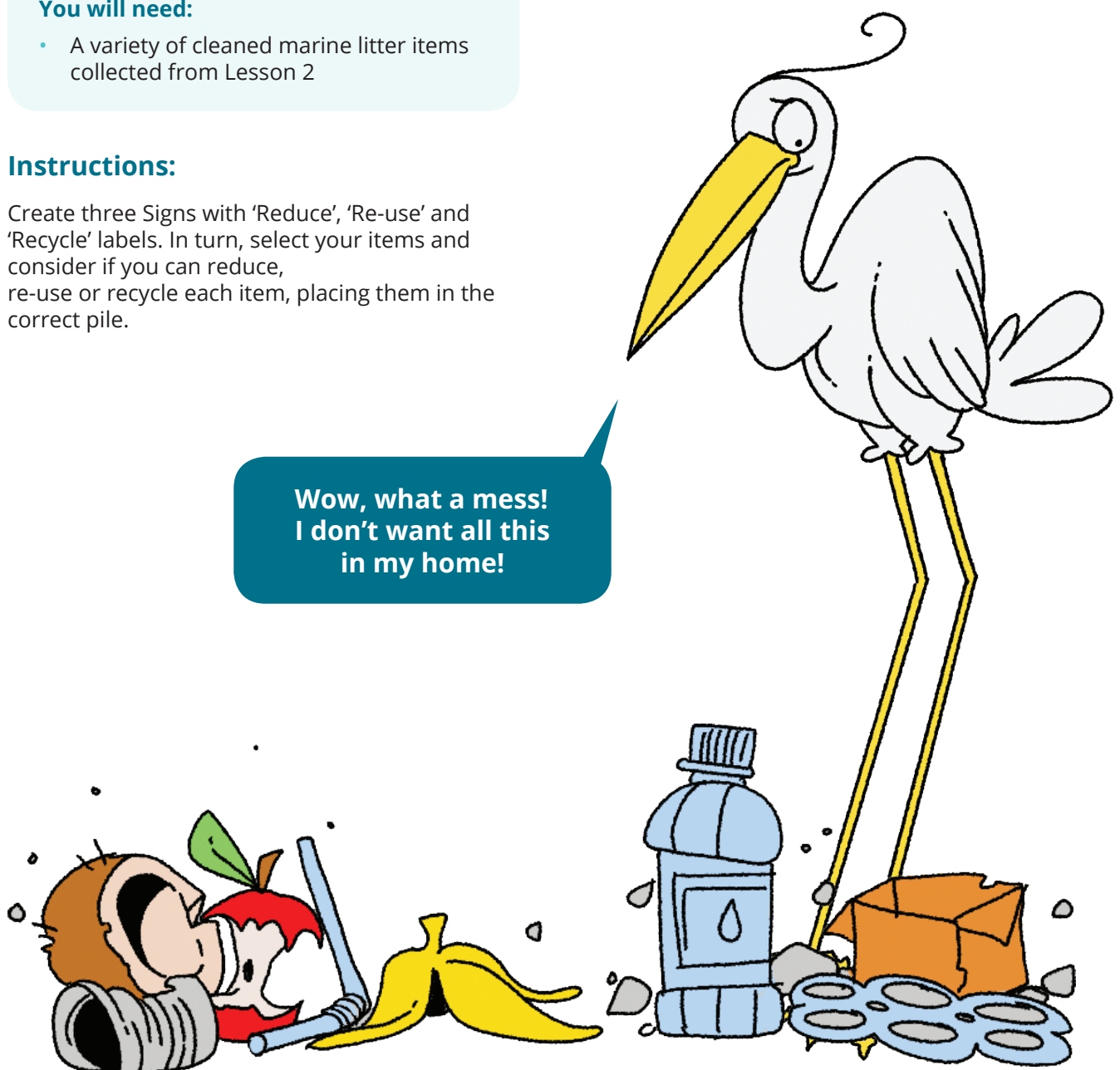
The aim of this activity is to raise awareness of the three ways that you can make sustainable everyday choices to help combat marine litter by implementing the three R's: Reduce, Reuse and Recycle.

You will need:

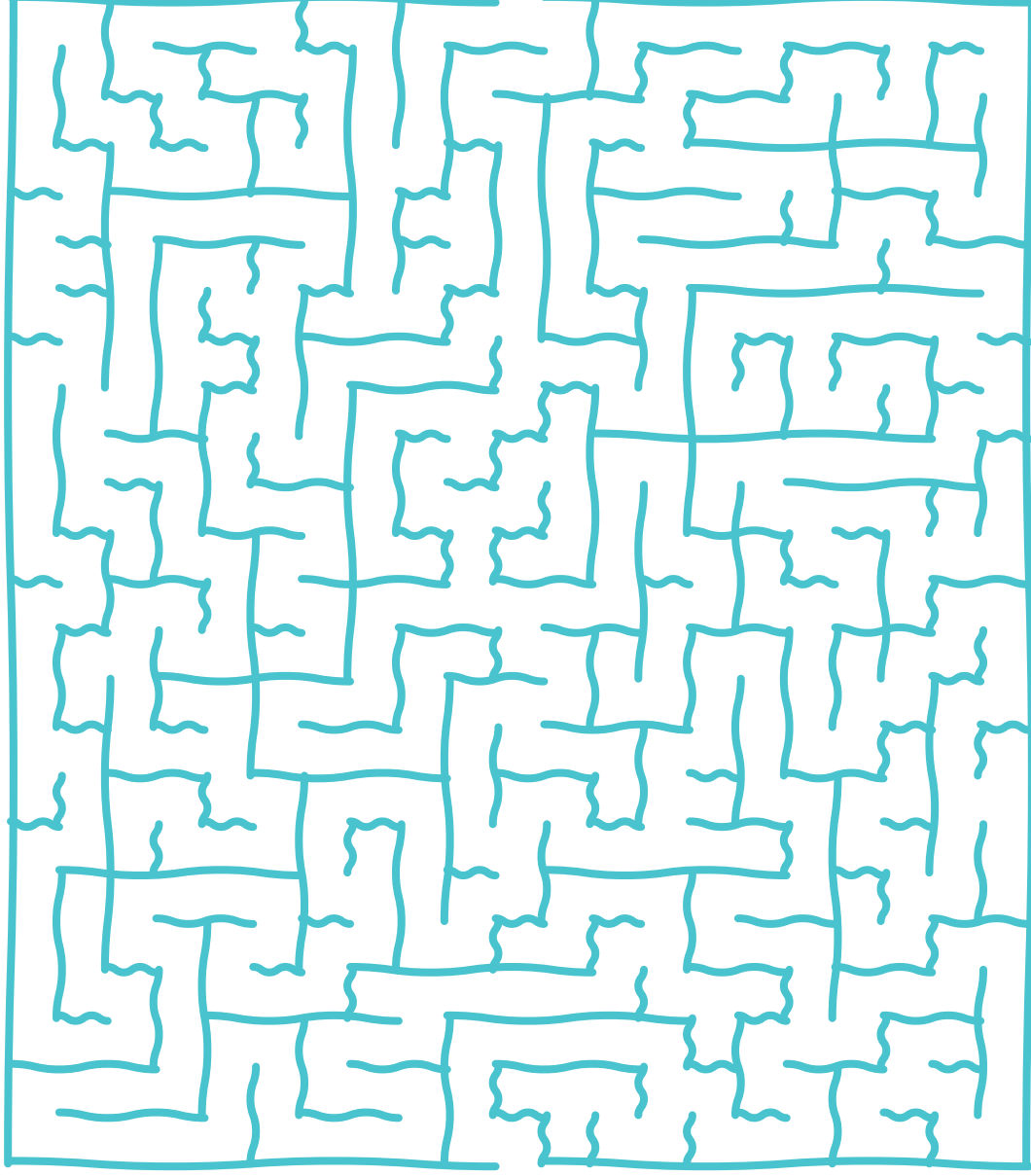
- A variety of cleaned marine litter items collected from Lesson 2

Instructions:

Create three Signs with 'Reduce', 'Re-use' and 'Recycle' labels. In turn, select your items and consider if you can reduce, re-use or recycle each item, placing them in the correct pile.



Help Salome find the recycling centre!

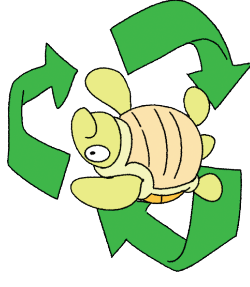


Can you help
me find the
way?



Salome the Turtle

I made it!



Recycling centre