

Turtles in trouble



Credit: Max Gotts

45 mins

Rainbows

About this activity

Would you like to travel through the ocean with Turtley the Turtle? Use your imagination to act out Turtley's journey from Mexico to Scotland and make your own tiny turtle too.

Outcomes:

- Learn how human activity has threatened a species
- Use imagination to bring to life the challenges faced by marine animals
- Practise listening skills

You will need:

- [Marine mess image](#) projected on a screen or printed
- [The journey of Turtley the Turtle](#)

To make a turtle hatchling:

- Scissors
- Paints or pens
- Glue
- Copy of [Make your own turtle hatchling instruction sheet](#) for each person
- [Speech bubble](#) for each person
- Bottom of an egg box for each person

Good coordination skills are needed to cut the bottom part off of an egg box – you may want to cut them out in advance and give one to each person.

Turtles in trouble

Part 1

Set the scene

1. Look at the picture of a [marine mess](#) and talk about:
 - What can you see?
 - How does the picture make you feel?
 - What would it be like to swim in that water?

Part 2

Turtley's journey

1. You're going to act out the story of one of the animals that goes on a long journey to get to UK seas – a leatherback turtle.
2. Your leader will read [The journey of Turtley the Turtle](#). Make sure everyone has space so they can use lots of expression and energy while acting out the story.
3. Discuss the story. How did it make you feel? What dangers did Turley face on her journey? How does litter reach the ocean?

Part 3

Tiny turtles

Each year, litter in the ocean kills and injures huge numbers of leatherback turtles when they ingest it or get tangled up in it.

So many are dying that they have become 'critically endangered'. This means they are at very high risk of becoming extinct (dying out forever).

1. Most of the rubbish in the ocean comes from the land. In pairs or as a group, talk about what you could do to help turtles and other animals that live in the sea.
2. Make your own turtle hatchling, following the [instructions](#) on the worksheet.
3. What do you think your turtle hatchling would like to tell humans? Write a message in the [speech bubble](#).
4. Share the message from your hatchling with other people, for example, your friends, family, or teacher.



Marine mess

The ocean is full of litter. How would it feel to swim in this water?



Credit: Lidya Nada

The Journey of Turtley the Turtle

Act out the story as you read it – suggested actions are included in brackets.

Far away, on a beach in Mexico, an egg is buried in the sand, safe and warm. (Crouch down and make an egg shape.)

On a dark night, the egg cracks. A tiny leatherback turtle hatchling called Turtley wriggles out. (Make cracking noises and use flippers to wriggle out.)

Turtley scuttles as fast as she can towards the sea. (Scuttle forward.)

Watch out for the crabs (snap! snap!) and dogs (snuffle, bark). Look, there's a gull!

Turtley reaches the shore. Here comes a wave. Turtley is picked up and washed into the sea. (Make wave noises as you're pulled into the sea.)

Dangerous predators are everywhere. Avoid the shark, Turtley! Watch out for the tuna! (Swerve.)

Turtley needs to grow from 2cm to 3m. She needs food. She swims the world's ocean searching for jellyfish to eat so that she can grow. (Swim around the space.)

There's a jellyfish! Quick, swim over to eat it! (Swim over and start to eat the jellyfish.)

But Turtley has poor eyesight... and... the jellyfish doesn't taste right. Ugh. It's a plastic bag floating in the ocean! (Shake heads, bleurgh.)

Turtley looks around. She's surrounded by plastic bags. Quick! Swim away. Don't get caught in the rope. Avoid the plastic bottles. Don't swallow the cigarette stubs or bits of broken plastics. (Swim, swerve.)

Swim, swim...

This water looks clearer. It's a protected area! Look at the clean sea. There's a jellyfish, Turtley! A real one. Enjoy a tasty dinner. You've earned it.



Make your own turtle hatchling

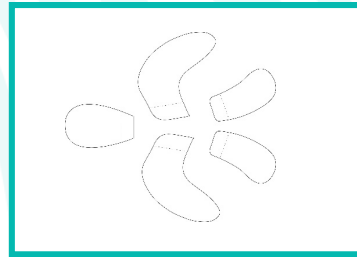
You will need:

- The top part of an egg box
- Glue
- Scissors
- Pens or paints



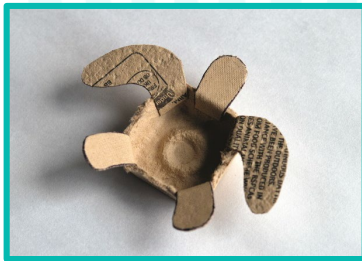
Step 1

Cut the top off one egg compartment to make your shell.



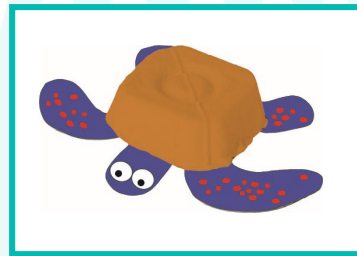
Step 2

Use the template below and cut out the two front flippers, two short back flippers and a head.



Step 3

Glue the head and flippers on to the shell to complete your hatchling.



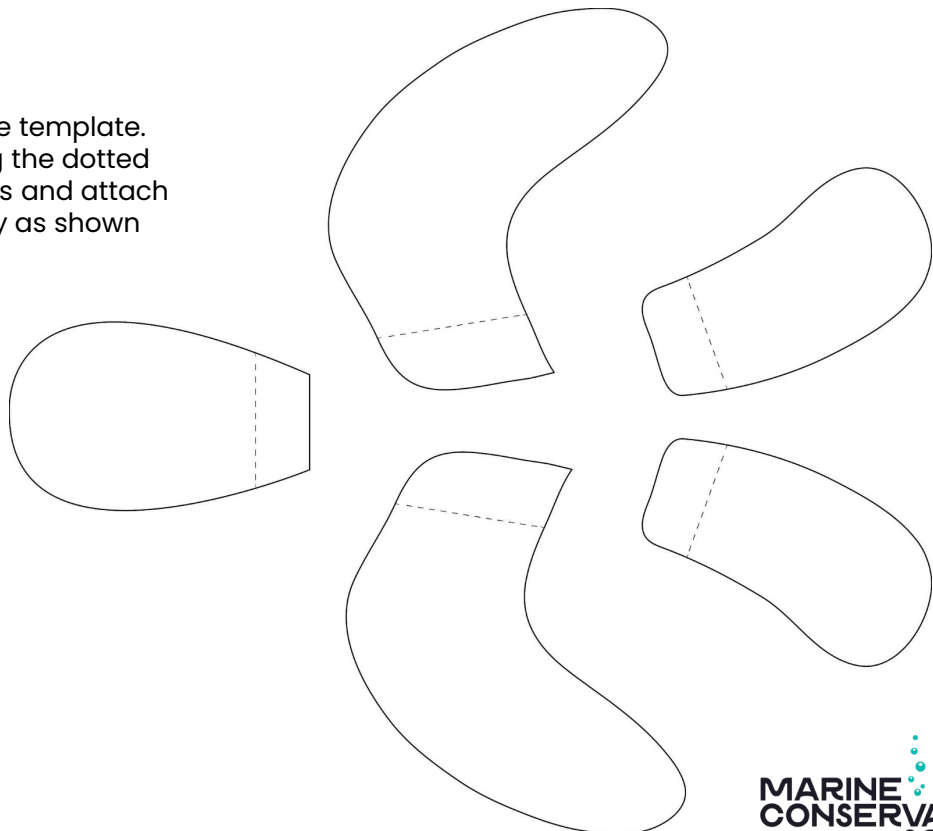
Step 4

Get creative and decorate your hatchling however you like.



Cut out the template

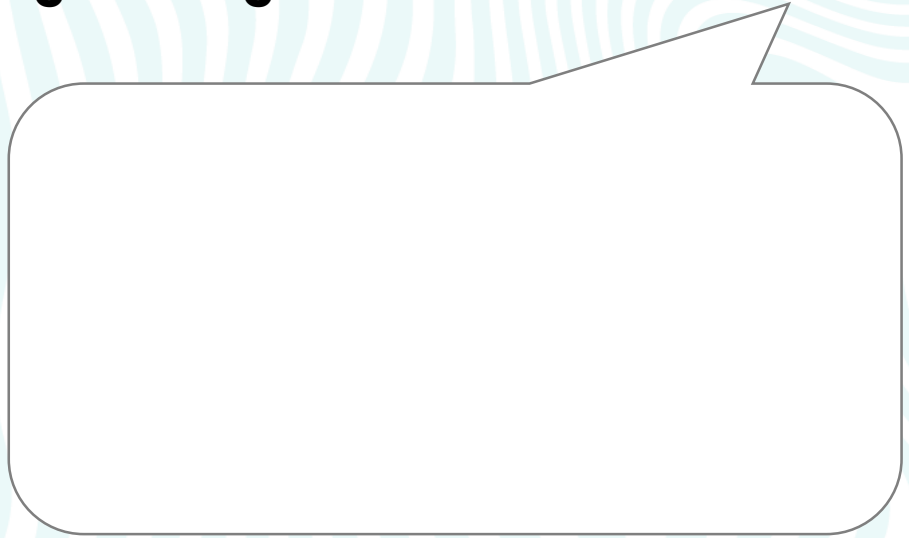
Carefully cut out the template. Fold upwards along the dotted lines, glue the edges and attach to the egg box body as shown in Step 3.



Turtle hatchling message

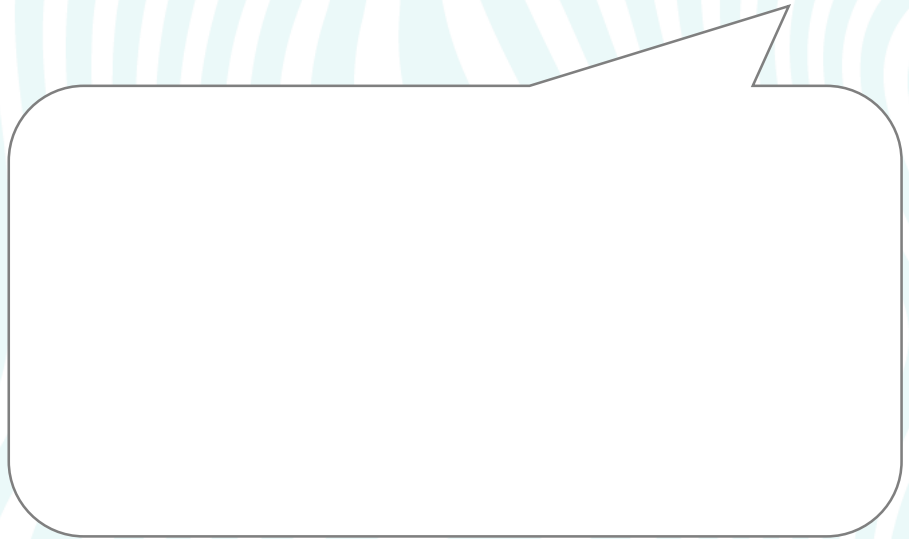
Cut out template

Carefully cut out this speech bubble. Write a message your hatchling would like to give to humans and stick it to your hatchling.



Cut out template

Carefully cut out this speech bubble. Write a message your hatchling would like to give to humans and stick it to your hatchling.



Cut out template

Carefully cut out this speech bubble. Write a message your hatchling would like to give to humans and stick it to your hatchling.



Tremendous Turtles Fact File

Turtle facts



There are seven species of sea turtle in our ocean.



Sea turtles spend most of their lives at sea, but have lungs so they need to surface regularly to breathe.



The earliest sea turtle fossil is roughly 110 million years old.



Their oar-like flippers allow them to swim swiftly through the ocean, and they have beak-like jaws rather than teeth.



The technical name for their shell is carapace.



Most sea turtles are cold-blooded and thrive in warmer climates, but the leatherback can control its own body temperature, enabling it to visit colder temperate seas to feed on its favourite food: jellyfish.



Research on seagrass beds has shown that those beds that have been grazed on by green turtles are more productive.



Many sea turtles eat jellyfish, which may help to prevent jellyfish blooms.

Lifecycle

Turtles lay their eggs in nests on beaches, which they dig out with their flippers. Females don't stay to incubate eggs or raise young, but they do return to the same beach each nesting season.

The temperature of the sand in the nest determines the sex of the turtle. Higher temperatures produce female turtles, and lower temperatures produce male turtles. Eggs hatch after about 2 months, when the turtles dig their way out of the sand and head to the sea. Unfortunately, many hatchlings are preyed upon by birds, fish and sharks.

Turtles are slow-growing and can live for a very long time. Some species take 20–30 years to reach maturity.

Tremendous Turtles Fact File

Seven species



© Alastair Rae

Leatherback turtle

The largest turtle, usually around 2 metres long. They get their name from the black, leathery skin covering their carapace. They're the most common turtle species in the UK.

Useful definitions:

Carapace – the hard upper shell of a turtle, tortoise, crustacean, or arachnid.

Jellyfish bloom – a substantial increase in a jellyfish population within a short space of time.



© MCS/Jonathan Kincaid

Hawksbill turtle

Hawksbill turtles have been hunted for their beautiful shells, and are now critically endangered. Their narrow head and long, tapered beak like a bird of prey, give them their name.



© MCS/Tim Fanshawe

Loggerhead turtle

Loggerhead turtles are named after their very large heads! They have powerful jaw muscles and a large beak for crushing prey like crabs.



© NOAA/David Burdick

Green turtle

Green turtles were once hunted for turtle soup, and their name comes from a green fat which is the main ingredient in the soup. Adult green turtles feed on seagrass and algae.



© USFWS Endangered Species

Kemp's ridley turtle

Kemp's ridley turtles are the rarest marine turtle. They were nearly extinct in the 1980s, but through conservation efforts, their numbers are increasing.



© Joost van Uffelen

Olive ridley turtle

Olive ridley turtles have an olive green carapace. Thousands of females come to shore at the same time to nest simultaneously.



© EA Given

Flatback turtle

Flatback turtles, as the name suggests, have a flattened carapace. They are only found in Australia and New Guinea.

Tremendous Turtles Fact File

Turtles in trouble

All 7 species of turtle are included on the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species and some populations are at risk of becoming extinct.

Entanglement in fishing gear

All species of turtle are susceptible to accidental capture in fishing gear, a phenomenon known as bycatch. They could be entangled in nets during fishing or discarded net, for example. Longline fishing methods are particularly impactful, and in the year 2000 alone over 200,000 loggerhead turtles were caught as longline bycatch. (1)



Green turtle entangled in fishing net © Mohamed Abdurraheem via Shutterstock

Use of turtle eggs, meat and shells

Marine turtles are still legally harvested for their meat in four of the five UK Overseas Territories in the Caribbean. Extensive turtle egg collection is thought to have been a significant factor in the decline of several marine turtle populations around the world. We've been working with communities in the Caribbean to ensure there's a maximum size limit on any turtles fished for meat. The aim is to protect turtles over a certain shell length so that they're able to mature and reproduce, which will support population maintenance.

In many parts of the world, hawksbill turtles are targeted for the scales on their shells, which are used to make 'tortoiseshell' decorations and jewellery.



Turtle hatchlings © Jolo Diaz via Pexels

1. Lewison et al 2004

Tremendous Turtles Fact File

Turtles in trouble

Habitat disturbance

Turtle nesting beaches are under pressure from development, especially from the tourism industry. Light pollution also disorientates emerging hatchlings, making them head inland to artificial light sources rather than out to sea. Boat traffic can also damage seagrass beds and coral reefs, which are important turtle feeding habitats.



Beach tourism
© Michaela via Unsplash

Pollution

Chemical pollution like oil spills and sewage can directly affect marine turtles if they're exposed to high levels. It can also lead to contamination of their feeding habitats and nesting beaches. Turtles are also killed by entanglement in, and ingestion of, marine litter, like discarded fishing gear, plastic bags and balloons.



Oil washing up on the beach
© Doug Helton/NOAA via Flickr

Climate change

Turtle nesting beaches could be inundated with water due to sea level rise if they're prevented from moving inland as a result of coastal development. Foraging habitats like tropical coral reefs and seagrass beds are likely to be affected by rising sea temperatures, rising sea levels, ocean acidification and the effects of increased storms and rainfall. Rising temperatures will also affect the sex ratios of turtles. Higher nest temperatures produce female turtles and lower temperatures produce male turtles. Due to warming temperatures, some beaches are now producing 99% female hatchlings. (2)



Researcher studying bleached corals © Andreas Dietzel via Flickr