Lesson Summary

Overfishing is emptying the ocean, with 90% of fisheries already overfished. Illegal poaching is having a big impact on species like sea turtles. This lesson focuses on sea turtle poaching.

This lesson will take approx. 45 mins.

Subjects relevant to

English, Geography, History, Science and Social Science.

Learning objectives

From this lesson students will:
➢ Understand the endangered status of sea turtles.
➢ Understand the reasons for sea turtle poaching.
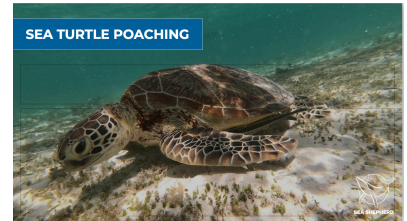➢ Discuss ways students can help address the issue.

Preparation

- This lesson has been designed to provide a complete lesson, but can be stopped at any time and split over multiple lessons, should you wish to include your own discussion/questions or incorporate the lesson activities.
- Definitions of key terms have been provided at the end of the guide to assist with the learning process.
- Each lesson has case study options showing Sea Shepherd campaigns, including videos to provide students with a firsthand experience of ocean conservation in action.
- Depending on whether students are working in a classroom or remotely, you can choose to discuss questions in the class or use the online learning app.
- This digital lesson has an interactive option called student devices. If you choose this option ask the students to bring their mobile phones or tablets to the lesson.
- Should you choose the interactive option, it will run a quiz during the lesson. Recommendation: only use this interactive option in classes of up to 30 students.
- Students can sign up on their mobile device to the www.LessonUp.app. They will be asked for a PIN code (this will appear automatically on slide 3 and will also show at the bottom of the screen). Students who sign up under a false name may be removed by the teacher.
- Students who do not have a mobile device can join the quiz with another student.
- If student devices is turned ON, you can opt to turn the sound and the share screen ON or OFF. Further on you can choose if you want to 'show ranking after each quiz' question. Doing so will create a competitive element, but it can be distracting. Recommendation: turn the 'show ranking after each quiz' OFF.
- The abovementioned options will also show if you click on the PIN code at the bottom of the screen.
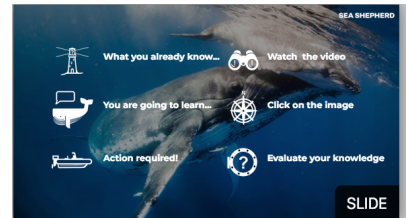
Lesson plan

Slide 1 Introduction

This lesson is provided by Sea Shepherd. Sea Shepherd was founded in 1977 and is a marine conservation organisation working to protect the oceans and marine wildlife. Sea Shepherd works globally on a range of issues impacting the oceans, running numerous direct action campaigns each year. Sea turtle poaching is one area Sea Shepherd is working on to help stop sea turtles becoming extinct.

Slide 2 Lesson action icons

During the lesson we will use these icons to identify the learning actions.

Slide 3 Lesson summary

This lesson focuses on one of the main reasons why sea turtles are endangered – poaching.
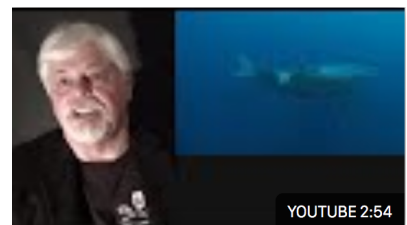
Slide 4 Empty ocean by 2050

Scientists estimate that by 2050 the ocean ecosystem will be on the verge of collapse, empty of fish and marine wildlife, unless urgent action is taken on the issues impacting on the oceans and marine wildlife.

Show this video (2.53min), which explains how important all species are to our planet.
https://www.youtube.com/watch?v=TLcA31VRlRU

Discuss the video with the class and what it means.
INTERACTIVE JOIN – ask students to go to www.LessonUp.app

2

Slide 5 Sea turtles

Sea turtles as a species have existed since the time of the dinosaurs, with the current species of sea turtles started to appear over 100 million years ago.
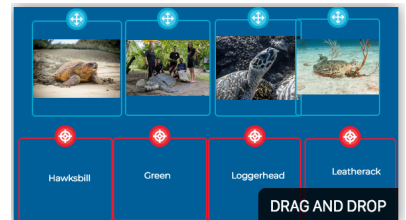

Slide 6 Sea turtle species

There are 7 main sea turtle species.
Ask students to name the sea turtle species they know?

Slide 7 Match the images

Using www.LessonUp.App ask students to match the image of the sea turtle to its name.

Slide 8 Hawksbill and Olive Ridley

The 7 species of sea turtles are:

Hawksbill
➢ Weight up to 70kg (154pounds) 90cm (3 feet).
➢ Hawks beak, which allows them to get food from coral reefs.
➢ 2 claws on front flippers.

Olive Ridley
➢ 70 cm (2.5 feet) 45kg(100pounds).
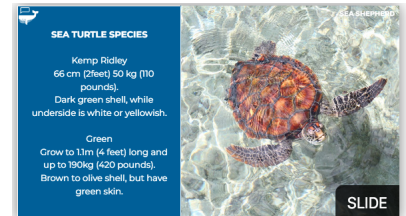➢ Olive green shell colour.
➢ Front and rear flippers have a claw.

3

Slide 9 Kemp Ridley and Green

Kemp Ridley
- 66 cm (2feet) 50 kg (110 pounds).
- Dark green shell, while underside is white or yellowish.

Green
- Grow to 1.1m (4 feet) long and up to 190kg (420 pounds).
- Brown to olive shell, but have green skin.

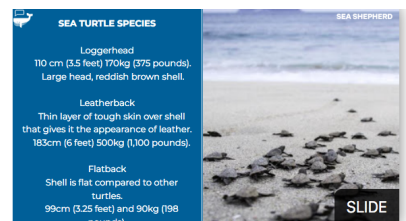## Slide 10 Loggerhead, Leatherback and Flatback sea turtles

Loggerhead
- 110 cm (3.5 feet) 170kg (375 pounds).
- Large head, reddish brown shell.

Leatherback
- Thin layer of tough skin over shell that gives it the appearance of leather.
- 183cm (6 feet) 500kg (1,100 pounds).

Flatback
- Shell is flat compared to other sea turtles.
- 99cm (3.25 feet) and 90kg (198 pounds).

Slide 11 Sea turtle facts

Ask students to identify the facts they know about sea turtles, or do an in class research project to find answers:
- What are the shells made of?
- Does the head retract into shell?
- How long can they dive for?
- How long do they live?
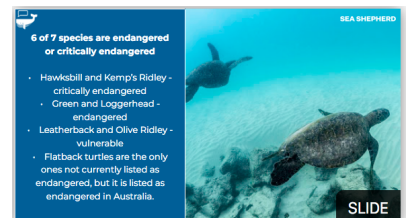- What do they eat?
- How do they breathe?

Slide 12 Endangered species

Endangered status of sea turtles.
6 of the 7 species are currently endangered or critically endangered.
- Hawksbill and Kemp's Ridley - critically endangered.
- Green and Loggerhead – endangered.
- Leatherback and Olive Ridley – vulnerable.
- Flatback turtles are the only ones not currently listed, but are listed as endangered in Australia.

4

Slide 13 Question
Ask students to answer the following question using www.LessonUp.app or discuss in the classroom.

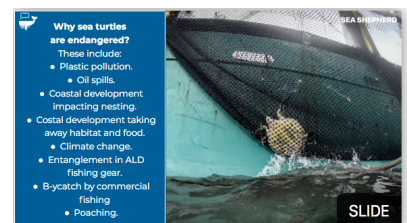"What do you think are the main reasons why sea turtles are endangered?"

Slide 14 Why sea turtles are endangered?
There are a number of issues impacting on sea turtles.

These include:
➢ Plastic pollution
➢ Oil spills
➢ Coastal development impacting nesting
➢ Costal development taking away habitat and food.
➢ Climate change
➢ Entanglement in ALD fishing gear
➢ Bycatch by commercial fishing
➢ Poaching

Today we will be focusing on poaching.

Slide 15 Sea turtle poaching
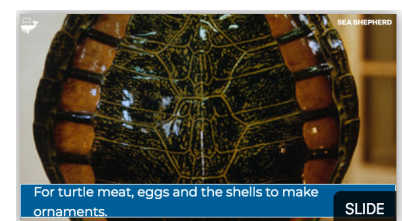Ask students to answer the following question using www.LessonUp.app or discuss in the classroom.

"Why do you think sea turtles are taken by poachers?"

Slide 16 Sea turtle poaching
The main reasons for sea turtle poaching are:
➢ Turtle meat.
➢ Eggs taken for food.
➢ Shells – used to make ornaments and jewellery, often for tourists.

Slide 17 Nesting sea turtles

Female turtles come ashore for nesting season, where they lay their eggs on beaches.

Sea turtles are slow moving and spend time digging a nest and laying eggs, then bury the eggs before heading back to sea.
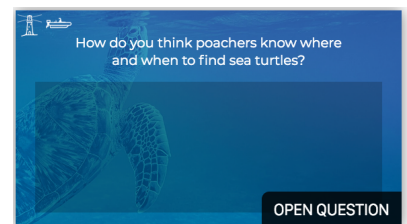
Poachers can wait until the eggs are laid and then kill the turtle.

Female turtle coming ashore to nest. SLIDE

Slide 18 Question

Ask students to answer the following question using www.LessonUp.app or discuss in the classroom.

"How do think poachers know where and when to find turtles?"

How do you think poachers know where and when to find sea turtles? OPEN QUESTION

Slide 19 Nesting sea turtles

Female turtles will use the same beaches to nest, often where they were born.

Nesting season is also a regular occurrence, so poachers come to know what time of year to watch for sea turtles and the beaches to monitor.

Female turtles use the same beach to nest on where they were born. SLIDE

Slide 20 Increasing risk of extinction

Poachers are increasing the risk of turtles becoming extinct by only taking female turtles that are reproducing, laying eggs.

They also often take the eggs – killing the next generation of sea turtles.

Only 1 in 1,000 sea turtles survive from the eggs hatched to adulthood.

Taking eggs takes away the next generation of sea turtles. SLIDE
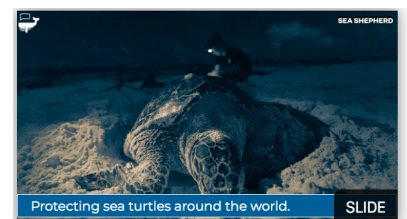
Slide 21 Where are sea turtles hunted?

Sea turtles are hunted in many places around the world.

Sea Shepherd runs campaigns to protect sea turtles. These have been in: Costa Rica, Nicaragua, Mayotte, Italy, Honduras, Florida (USA), Barbuda, Antigua and Cabo Verde.

Sea Shepherd Case Studies provide additional learning on some of these locations.

Protecting sea turtles around the world. SLIDE

Slide 22 Protecting sea turtles
How can we protect sea turtles from poachers?

There are international laws that make it illegal to carry sea turtle parts or products between countries. Thus most poaching is for local purposes.

CITES - Convention on International Trade of Endangered Species, requires that countries who have signed up to CITES to prohibit any trade in sea turtles or anything made from them.

Individual countries also have their own laws to protect sea turtles.

Slide 23 Patrolling beaches
Conservation groups, like Sea Shepherd and local activists, patrol beaches to protect nesting turtles from poachers.

In some areas sea turtle eggs are removed from the nest and taken to hatcheries where they can be kept safe until they hatch and can then be returned to the ocean.

Patrolling beaches to protect nesting turtles.

Slide 24 How do you think you can help protect sea turtles?
Ask students to answer the following question using www.LessonUp.app or discuss in the classroom.
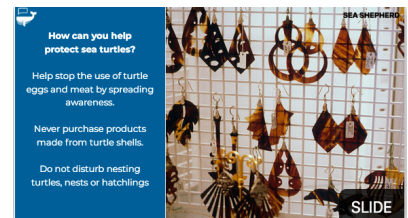
"How do you think you can help protect sea turtles?"

How do you think you can help protect sea turtles?

Slide 25 How do you think you can help protect sea turtles?
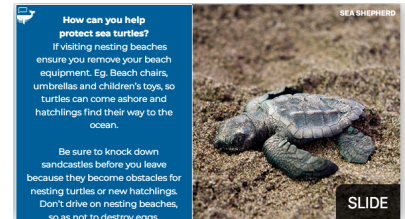Some ways you can help include:
➢ Help stop the use of turtle eggs and meat by spreading awareness.
➢ Never purchase products made from turtle shells.
➢ Do not disturb nesting turtles, nests or hatchlings.

Slide 26 How do you think you can help protect sea turtles?
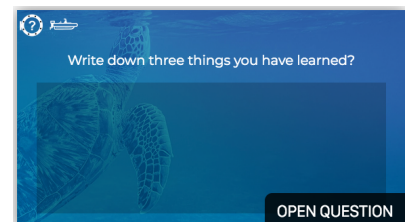
Some ways you can help include:
➢ If visiting nesting beaches ensure you remove your beach equipment. Eg. Beach chairs, umbrellas and children's toys, so turtles can come ashore and hatchlings find their way to the ocean.
➢ Be sure to knock down sandcastles before you leave because they become obstacles for nesting turtles or new hatchlings.
➢ Don't drive on nesting beaches, so as not to destroy eggs.

Slide 27 What did you learn?

Ask students to answer the following question using www.LessonUp.app or discuss in the classroom.
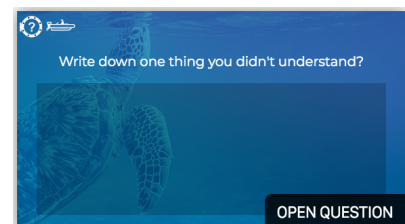
"Write down three things you have learned?"

Slide 28 What don't you understand?

Ask students to answer the following question using www.LessonUp.app or discuss in the classroom.

"Write down one thing you didn't understand?"

Slide 29 Case studies

To enhance learning on this issue use some of the Sea Shepherd Case Studies on this topic, showing first hand accounts of what is happening to sea turtles.

Slide 30 Close

Case Study Options

Case Study – Operation Jairo
Case Study – Operation Nyamba

Key Definitions

<u>By-catch</u> - is basically anything that is caught in fishing nets or on lines that the fishermen don't want or are not allowed to legally sell.

<u>Coastal development</u> – includes an array of human activities including beachfront construction of homes, hotels, restaurants and roads.

<u>Endangered</u> – seriously at risk of extinction.

<u>Entangled</u> – to become twisted together with or caught in.

<u>Extinction</u> - the state or process of being or becoming extinct. No longer in existence.

<u>Hatchling</u> - a young animal that has recently emerged from its egg.

<u>Marine pollution</u> – a combination of chemicals and trash most of which comes from land sources and washed or blown into the ocean.

<u>Migration</u>- to go from one country, region or place to another.

<u>Poaching</u> - illegally hunt or catch (marine mammals or fish) that is not one's own or in contravention of official protection.

<u>Threatened</u> – vulnerable or at risk; endangered.

YOUR FEEDBACK

We value your feedback and would be pleased to hear your thoughts about this lesson and activities. Any comments, suggestions or requests for further information can be sent to education@seashepherdglobal.org.