



Lesson Summary

This lesson discusses dolphin species, why they are important and the threats they are currently facing.

This lesson will take 45 minutes to complete.



Subjects relevant to

English, Geography, History, Science and Social Science.

Learning objectives

From this lesson students will:

- Learn about dolphins.
- Understand some of the issues impacting dolphins.
- Discuss ways we can protect dolphins.

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.
- Each lesson has a lesson activity sheet with ideas on additional learning activities, which can be included in the lesson to enhance the learning experience.
- 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 is a marine conservation organisation with a mission to protect the ocean and marine wildlife. Sea Shepherd works globally on a range of issues impacting the ocean, running numerous direct action campaigns each year. Dolphins are one species that Sea Shepherd is fighting to protect.



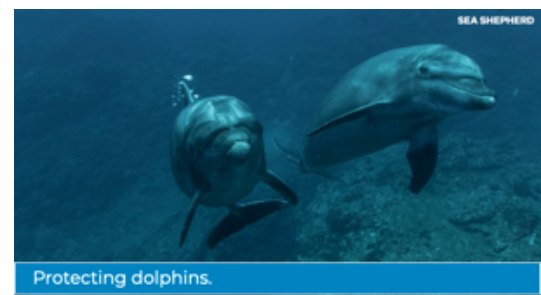
Slide 2 Lesson action icons

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



Slide 3 Lesson summary

This lesson is about dolphin species, some of the issues harming dolphins and what everyone can do to help keep them safe.



Slide 4 Dolphins

There are over 30 species of dolphin, most live in the ocean but there are some that live in rivers.

There are also seven species of porpoises.





Slide 5 Whales and dolphins

All whales and dolphins are part of the family called cetaceans.

Two types of cetaceans:

- Baleen whales – these are the ones that scoop up water, including fish and krill in their mouths – filter feed.
- Toothed whales

Dolphins and porpoises are part of the toothed whale family.



Slide 6 Dolphin or porpoise?

Ask students: “Do you know the difference between a dolphin and porpoise?”

Can you see any differences between the two images?

Dolphins tend to have a longer beak, bigger mouths and more curved dorsal fins.

Porpoise have smaller mouths with spade-shaped teeth, the dorsal fin is more triangular shaped. They also don’t communicate as much as dolphins.



Slide 7 Vaquita porpoise

The Vaquita is the smallest porpoise at 1.5m (5 feet) and weighs about 54kg (119lbs). With less than twenty left the Vaquita is critically endangered, which means they might be extinct in the near future (disappear from the ocean forever).

They are only found in one place in the world, in the Gulf of California off Mexico, also known as the Sea of Cortez.



Slide 8 Orca

Orca are the largest of the dolphin family.

Their original name was actually Whale Killer as they are one of the few species on this planet that will hunt and eat whales, some much bigger than themselves. They are very intelligent animals, that work as a team to hunt for food.

Orca’s live in family pods and can live for over 100 years.





Slide 9 Bottlenose dolphins

Bottlenose dolphins are the most common and well-known dolphins. They grow up to 4m (13 feet) and weight about 590kg (1,300lbs). They can live up to 40-60 years.



Slide 10 Hector's dolphins

Hector's dolphins are the rarest species of dolphin, which means they are at serious risk of disappearing from the ocean. They are only found in New Zealand waters. They have unique colouring and the dorsal fin on their back is rounded.

Maui dolphins are part of the hector's dolphin family and there are less than 100 of them left.



Slide 11 Dolphin calf

Dolphins are mammals, like us, so they have babies, called calves. A calf will stay with its mum for 18 months to 8 years depending on the species. Mum feeds baby until it is big enough to eat solid foods.

Dolphin calves spend most of their early months swimming next to mum or even ride on her back, this helps it to keep up with the pod.

The bond between mum and baby is similar to ours, so the mums get really sad when they lose a baby.



Slide 12 Intelligent species

Dolphins are really intelligent. They have a brain larger than humans.

They show signs that they experience similar feelings like we do - pain, love and sadness when they lose a family member.





Slide 13 What do dolphins eat?

Dolphins mainly eat small fish, crustaceans and squid. Crustaceans are animals like krill, prawns, crabs and crayfish, they all have a shell.

Larger species like orcas will feed on whales, sharks, seals and other dolphins.

Dolphins are really smart and work together as a team when hunting. If they find a school of fish they slowly circle around them, to herd the fish together. When hunting close to shore they use their tails to kick up dirt from the ocean floor in order to make a circle of murky water around the fish. Then as the fish try to jump out of the water over the dirty water they catch them.

Dolphins have also been seen using tools to help them hunt like using sea sponges on their rostrum (nose) to protect it while they dig around on the seabed looking for food. This protects them from pieces of rock or broken coral. Pretty smart.



Slide 14 Dolphin language

Dolphins have their own language, even within each group or pod they will have their own form of communication. Unique sounds like clicks that they use to talk to each other.

Show this video (1.16 mins), which shows a pod of pantropical spotted dolphins. Listen to their communication sounds:

<https://youtu.be/kLATfDnLCUc>



Slide 15 Echolocation

Whales and dolphins use echolocation to find their way and hunt for fish.

Echolocation means they send out a sound and listen for the echoes that come back. These echoes tell them what objects or animals are in the area.

See the Lesson Activity Sheet – Echolocation Activity.





Slide 16 Important to the ocean

Dolphins, like whales and sharks play a very important part in the ocean and help to keep the ecosystem in balance. Dolphins help control populations of fish and squid, keeping the numbers under control, which balances the impact of each species in the ecosystem.

Ecosystem means a biological community of interacting organisms and their physical environment. Which is a community of living beings that work together with their environment. Like a reef, with corals, fish and sharks,



Slide 17 Predator

There is one natural predator of dolphins, which is the shark. But sharks have to be careful as dolphins can put up a fight. If a shark tries to attack a dolphin it can find its self being charged at by a group of dolphins defending their pod. The shark might end up losing the fight.



Slide 18 By-catch

Dolphins get caught in the nets of large fishing vessels. The nets are so big they can trap whole dolphin pods. Often the dolphins don't get released in time and die.

To help protect dolphins we have to make sure the fishing vessels do the right thing and watch out for dolphin pods when they are putting out their nets, and that dolphins caught in the nets should be released quickly.



Ask students why they think dolphins get caught in nets?

- The dolphins and the fishing vessels both want to catch the same fish.



Slide 19 Entanglement

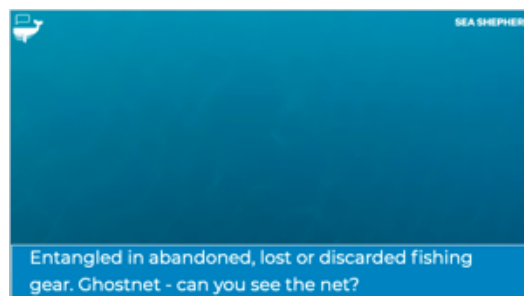
Each year a lot of fishing gear is lost or left behind in the ocean by fishing vessels. These nets float in the ocean catching marine wildlife and can entangle dolphins.

Imagine dolphins swimming and all of a sudden they get caught in fishing nets and lines. They have to float there or swim along all entangled until someone helps them. Unfortunately, not all of them find help in time.

Ask students how we can help stop the dolphins becoming entangled?

- By helping to clean up fishing gear from the ocean.
- Making the fishing vessels clean up their own fishing gear properly.

Teacher's note: Each year 640,000 tonnes of fishing gear is lost, abandoned or discarded at sea by the commercial fishing industry.



Slide 20 A sea of plastic

Every day all over the world rubbish is finding its way into the ocean. It is estimated that this rubbish amounts to more than one garbage truck dumping trash in the ocean every 40 seconds – imagine all that rubbish floating in the ocean.

All kinds of trash are left behind at beaches or in waterways to be washed out to sea, dumped at sea from boats or lost from container ships in storms.

Teacher's note: Over 12 million tonnes of trash is finding its way into the ocean each year. This amount is growing each year.



Slide 21 Why is trash in the ocean a problem?

Ask students why they think this is an issue for dolphins?

They can't always distinguish the difference between rubbish and food and when they do they might already have swallowed it, or caught up and entangled in it, unable to free themselves.





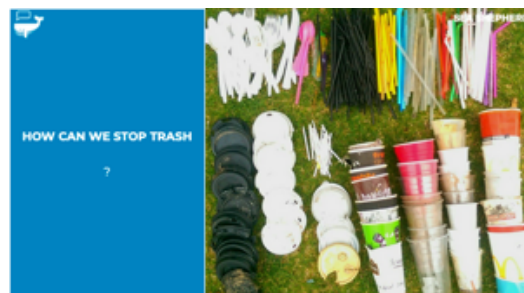
Slide 22 Stopping the trash

Ask students “What do you think we can do to stop this trash ending up in the ocean?”

Teacher’s note:

You can discuss things like:

- Reducing single use plastics.
- Using reusable products.
- How to properly dispose of rubbish.
- Recycling plastics.
- Doing clean ups.



Slide 23 Dolphin captivity

There are people who hunt dolphins for captivity. Captivity means dolphins are taken from the ocean and put in pools at marine parks. The dolphins are trained to entertain people and do tricks.

Who doesn’t love watching dolphins swim and jump around in the water, but captivity is no fun for dolphins, neither bottlenose dolphins nor orcas.

Ask the children why they think being in captivity might not be fun for dolphins?

These are some of the problems with captivity that could be discussed:

- Dolphins are fed dead fish rather than fresh – not as healthy as in the wild, where they would naturally hunt together for live fish.
- Taken from their family groups – how would you feel being separated from your family & friends?
- Put into tanks with foreign animals that may not communicate the same as them – Think how scary it would be being stuck in a foreign country not speaking the language.
- Size of the tanks – instead of open ocean they spend the rest of their lives in a tiny pool or pen where they can only swim in circles.
- No stimulation – no fish to catch, no ocean currents, or waves, and sounds used for echolocation bouncing off the concrete walls all the time.
- They are kept hungry and forced to learn tricks for food just to entertain us.





Slide 24 Where do dolphins belong?

In the bath tub with the rubber ducky?
In the pond with frogs and lilies?
In the pool with you and me?
Or swimming in the deep blue sea?

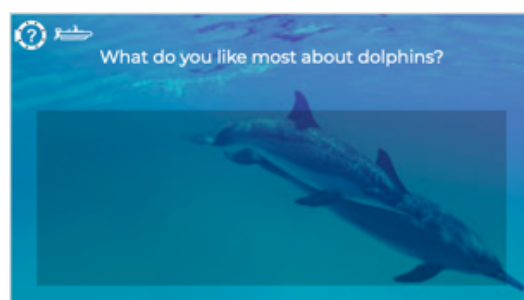
The bath tub is too small!
The pond is too swallow!
The pool is to short.
So dolphins must belong swimming free in the sea.



Slide 25 What do you like most about dolphins?

Ask students to answer the following question using www.LessonUp.app or write on paper:

“What do you like most about dolphins?”



Slide 26 What is harming dolphins?

Ask students to answer the following question using www.LessonUp.app or write on paper:

“Write down one issue that we talked about that is harming dolphins?”



Slide 27 How can we help dolphins?

Ask students to answer the following question using www.LessonUp.app or write on paper:

“Write down one thing that you can do to help protect dolphins?”

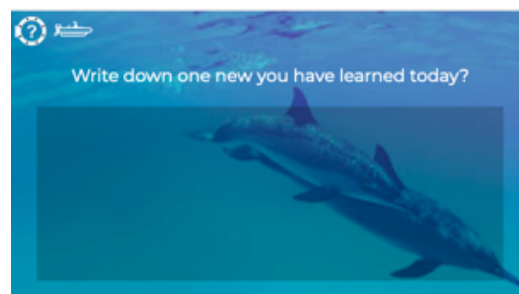




Slide 28 What did you learn?

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

“Write down one new thing you have learned today?”



Slide 29 What don't you understand?

Ask students to answer the following question using www.LessonUp.app or write on paper:

“Write down one thing you didn't understand?”



Slide 30 Learning activities

Sea Shepherd Lesson Activity Sheets provide additional lesson activities or discussion topics to expand the learning experience.

Optional fun video

Show this video (1.01 mins), which shows a super pod of dolphins visiting the Sea Shepherd vessel Bob Barker:

<https://youtu.be/Ak2p8O-szBY>



Slide 31 Close



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.