

## Where and when:

**Date:** Wednesday, 31 January 2024

**Time:** 11:00

**Duration:** 30 minutes

**Location:** [bbc.co.uk/livelessons](https://bbc.co.uk/livelessons)

*This programme is available to view from home or school, and no sign-up is required.*

*Simply visit the website on the day and follow the instructions on the page to watch.*



### Curriculum links:

KS2 Science / Science Second Level / Science & Technology Progression Step 2 / KS2 The World Around Us.

### Pupils should:

- Identify how animals and plants are adapted to suit their environment.
- Explore classification keys to help group, identify and name living things.
- Give reasons for classifying animals based specific characteristics.
- Recognise that environments can change and that this sometimes poses dangers to living things.

## Setup:

This Live Lesson will broadcast on the CBBC channel and simultaneously on the BBC Teach website at 11:00 on Wednesday, 31 January 2024. It will remain online afterwards to be used as a teaching resource whenever you need it.

We will be running a live commentary page on BBC Teach during the broadcast to share contributions from children watching from home and school.

## How much space and equipment is needed?

The lesson can be viewed in a classroom or at home with a device (computer, tablet or mobile phone) linked to a reliable broadband connection or watched on a television on the CBBC channel. We will ask children to get involved in activities throughout the lesson and have provided downloadable [activity sheets](#) to help guide them through this.

You may wish to hand these out in advance, along with stationery such as pens and pencils. Pupils will still be able to follow the activities if they don't have printed activity sheets to hand.

## **Lesson content:**

This programme is designed to engage primary learners from ages 7 to 11. It covers learning objectives across:

- England national curriculum - Science (Key Stage 2)
- Scotland curriculum for excellence - Sciences (Second Level)
- Curriculum for Wales - Science and Technology (Progression Step 2 and 3)
- Northern Ireland national curriculum - The World around us (Key Stage 2)

### **Section 1 - Introduction:**

The presenters will introduce this special Deadly Mission Shark lesson live from The National Marine Aquarium in Plymouth. They will then reveal the mission of the programme; to follow in the footsteps of the Deadly Mission Shark Saviours, learning all about sharks, their adaptations, and the threats to their survival, before learning how to become animal conservationists.

### **Section 2 - Understand your animal:**

The presenters begin by explaining that sharks have been on earth for around 450 million years, predating even the dinosaurs. As part of the Chondrichthyes group, they are fish with flexible skeletons made of cartilage instead of bone.

The presenters then define what an adaptation is before exploring how sharks are adapted to survive and thrive in their habitat.

With the help of our very own shark squad, they conduct an experiment to investigate one of sharks' most useful adaptations - sophisticated sensory organs called Ampullae of Lorenzini, which allow them to pick up the electric signals made by their prey.

In activity 1, the presenters will show the children a picture of a hammerhead shark - beneath it is a list of adaptations and a selection of examples showing how the shark benefits from them. They are tasked with matching each adaptation to the relevant benefit.

Download activity sheet 1 [here](#).

### **Section 3 - Know your species:**

This section is all about knowing the different species of shark and how scientists tell them apart. The presenters highlight examples of different shark species and key characteristics that set them apart from one another.

The Shark Squad are then challenged to a game of 'Who Am I?' - a quiz with yes/no questions, modelling how scientists use a dichotomous key to tell different species of sharks apart (a common classification method).

In activity 2, children are shown a picture of a shark and are tasked with determining it's species using the accompanying dichotomous key.

Download activity sheet 2 [here](#).

## **Section 4 - Become an animal conservationist:**

In this section we learn about the threats facing sharks and other marine wildlife and discuss the action we can take to try and help them.

We then hear from a collection of children across the UK who are already making efforts to help animals in their local area.

The presenters remind children that the key to becoming a great conservationist is to find out as much as possible about the animal they want to protect. In activity 3, children are encouraged to choose an animal that they would like to celebrate and protect, before writing some questions about that animal to research later.

Download activity sheet 3 [here](#).

The episode concludes with a Q&A with Steve Backshall, answering questions about sharks sent in by viewers throughout the programme.

### **Follow-up activities:**

- Find out about wildlife conservation. Research a conservation group working in your area. Which plants and animals are they working to protect? How could your school get involved in their work?
- Investigate how sharks smell. Conduct a comparative test by comparing different solutions of orange juice and water. What is the weakest solution you can smell? Did you know that humans can only smell solutions with as little as 200 parts per million, while sharks can smell solutions as weak as 1 part per million?