



## THE SEA DEEP SCHOOL'S PROGRAMME

### LESSON 1

#### SHARK BIOLOGY – WHAT IS A SHARK?

Time: (X minutes)

### Overview

The first education session will provide information on the differences between elasmobranchs (sharks, skates and rays) and other marine wildlife, such as fish and marine mammals. This will include learning aspects of shark biology such as body design, adaptations to the marine environment and sensory systems.

#### *Age group:*

The Sea Deep Education Programme is designed for Key Stage 3 pupils.

#### *Learning Objectives:*

This education session will enable students to:

- Develop their knowledge of shark biology and ecology, including the differences between sharks and bony fish, and the differences between the three elasmobranch groups (sharks, skates and rays);
- Understand how sharks have adapted to their environment.

#### *Links to the Curriculum: (MAYBE PUT IN ACTIVITY PACK)*

The Sea Deep Education Programme has been designed to support the delivery of the revised NI curriculum (2007) for Key Stage 3. It aims to help pupils develop skills and capabilities for lifelong learning through learning about marine wildlife and the environment. The programme has been designed to incorporate the Cross-Curricular Skills, Thinking Skills and Personal Capabilities included in the curriculum.

This programme will link with the following Curriculum Objectives for Science:

#### *Objective 1*

- *Explore issues related to mutual understanding*
- *Explore issues related to moral character*

#### *Objective 2*

- *Investigate how the media help inform the public about science and science related issues*

- *Explore some ethical dilemmas arising from scientific developments*

### Objective 3

- *Identify how skills developed through science will be useful to a range of careers*
- *Investigate the effects of pollution and specific measures to protect the environment*
- *Explore the importance of biodiversity, how it impacts on our lives and how it is affected by human activity*
- *Investigate what can be done to conserve and promote biodiversity*

### Resources:

The following resources are required to deliver this session:

- Laptop / Projector and screen
- Presentation
  - Shark Biology – What is a shark?
- Activity sheets:
  - Shark Body Parts Activity Sheet & answer sheet
  - Shark Adaptations Activity Sheet & answer sheet

## Education Session 1 Outline

### Introduce the Sea Deep Project

The Sea Deep Project is Ulster Wildlife's shark conservation project based in Northern Ireland. As part of the project, they have created the school's programme. This programme consists of 4 pre-recorded classroom-based lessons. Throughout this programme we will learn about sharks and their role in maintaining a healthy ocean ecosystem, their conservation status and methods of protecting and learning about them in the field.

### Activity - Shark Perceptions (Carry out before the presentation)

- **Q!** Ask the pupils if they have ever seen a shark before?
- Ask the students working in pairs to write down words that they think of when they hear the word 'shark'.
- Get the pupils to read out some of their words.
- Get pupils to keep their words to refer back to at the end of the programme.

### Presentation – Shark Biology

Play the presentation on the biology of sharks, skates and rays, including their similarities and differences.

### Activity - Shark Body Parts

- Hand out the Shark Body Parts Activity Sheet and ask the pupils to fill in the correct words. Read over the correct answers.

### Activity - Shark Adaptations

- Hand out one activity sheet to each pupil. Read through the sheet and ask them to link up the shark body parts to their functions. Read over the correct answers.

### Quiz!

- Test your knowledge with the 'Shark Biology' quiz!

### Other Activities

If there is time at the end your lesson, try the following activities:

- Media perceptions – How are sharks portrayed in the media?
- Experiment – Why don't sharks sink?
- Experiment – How do sharks breath underwater?
- Design your perfect shark



## LESSON 2

### SHARK BIODIVERSITY – MEET OUR LOCAL SHARKS

Time required: 30 minutes

## THE SEA DEEP SCHOOL'S PROGRAMME

### Overview

The second education session will provide information on the different species of sharks, skates and rays that live in our local seas.

### Age group

The Sea Deep Education Programme is designed for Key Stage 3 pupils.

### Learning Objectives

This education session will enable students to:

- Understand how sharks have adapted to their environment;
- Develop their knowledge of local shark, skate and ray species;

### Resources

The following resources are required to deliver this session:

- Laptop, projector & screen
- Presentation
  - Lesson 2: Shark Biodiversity – Meet our local sharks
- Activity sheets:
  - 'Which Sharks are in our Seas?' Activity Sheet