



Save Our Seas: The Rangers Challenge

Teacher
Guide



Thank you for booking your trip to SEA LIFE where your pupils will become the ultimate conservation champions and take on 'Save Our Seas: The Rangers Challenge' to help save our oceans and sea creatures from danger.

In this guide, you'll find information about the 'Save Our Seas: The Rangers Challenge' activity pack to accompany you when visiting your local SEA LIFE Centre, along with guidance for before and after your trip.

This guide includes:

- ★ Information about the pre-visit activity and where to find the short video to share with your class before your visit.
- ★ Advice on the activities within the 'Save Our Seas: The Rangers Challenge' activity pack, including ways you can support or challenge pupils.
- ★ How to complete the 'Create your campaign!' task on return to school.
- ★ The objectives and key curriculum links relevant to the trip and the activities.

Prior to your visit

Introducing 'Save Our Seas: The Rangers Challenge'

Prior to visiting your local SEA LIFE Centre, please show your class the short pre-visit video. Presented by a SEA LIFE aquarist, this video will introduce pupils to 'Save Our Seas: The Rangers Challenge'. The video will give them an idea of the key topics they'll be exploring through the range of fun activities they'll complete during their visit. The video finishes by explaining to pupils that they can complete their own conservation campaign back at school.

The video link can be found [here](#).

Use the following questions to facilitate a classroom discussion to help identify current knowledge and understanding, and help your pupils prepare for their trip:

1. What kind of creatures do you think we might see at the SEA LIFE Centre?

2. Why do you think that the SEA LIFE Centre is important in helping us learn about creatures and how to protect our oceans?

3. Does anyone know some ways that the oceans might be being affected negatively?

4. Does anyone know what an awareness campaign is?

This activity should take no more than 15 minutes.

Want to find out even more about what to expect on your trip to SEA LIFE? Head to the SEA LIFE website and choose the centre you'll be visiting for more information at visitsealife.com.

For the trip, please ensure pupils are split into groups of five and are supervised by an adult at all times.


Please be advised that SEA LIFE is unable to provide clipboards for pupils to use when filling in their activity packs. Each pack has been made with durable paper but please feel free to bring further support for pupils if you wish to do so. Please also note that you will need to provide pupils with their own pens.


During your visit


Getting to know the activity pack

When you arrive at your local SEA LIFE Centre, please go to the admission desk and request your activity packs. You'll need to specify how many groups of five are present, and their age/year group (so that you receive the correct pack).

In groups of five, pupils will gather information throughout their visit to SEA LIFE and record it in their activity pack. The prompt questions and activities within the pack are designed to get pupils thinking critically. Pupils will consider:

 The different sea creatures they'll encounter and their habitats.

 How sea creatures are being negatively impacted by human behaviour.

 What can be done to help protect the sea creatures and their habitats.

There are extension activities within the booklet for further challenge.

Whilst most of the activities in the booklet are self-explanatory, the following activities require further consideration.

Please collect completed packs from pupils at the end of the trip.

Activity

Ages 5-7: 'Creature study' (page 6)

Ages 7-11: 'Features of creatures' (page 6)

This activity requires you to assign a sea creature to each group, ahead of your visit. To see which sea creatures and zones there are, please visit: visitsealife.com, choose your local centre, and go to 'What's Inside'.

On the day of the trip, chaperones for each group will need to instruct pupils to look out for the sea creature they have been assigned.

Pupils will visit the sea creature they've been asked to look out for, and observe this creature and its habitat in order to answer the questions on page six of their activity packs.

Pupils should discuss their thoughts and ideas whilst observing their sea creature. To avoid overcrowding, please encourage them to move to a sensible place that is considerate to other guests to write their answers in the activity pack.

Activity

Ages 5-7: 'Habitat heroes' (page 7)

Ages 7-11: 'Save our sea creatures' (page 7)

For this activity, pupils will be asked to visit the Ocean Tunnel. Please encourage pupils to discuss their ideas as they move through the tunnel. Please then direct pupils to complete the activity in a sensible place close to the tunnel that is considerate to other guests.

This activity is all about creating discussion and debate. This activity requires pupils to think critically about scenarios that are linked to ocean

conservation issues. This could be an area of learning that is continued back in the classroom, helping them to prepare for their campaign activity.

Ages 7 - 11: For pupils aged 7 to 11, why not consider a short debate/discussion or voting activity that will develop communication and problem-solving skills? Ask pupils to explain their thinking behind their choice of which plan of action was the best for each scenario.

After your visit

'SEA LIFE Rangers: Create Your Campaign!' (page 8):

This final activity is all about getting pupils started on their campaigns. The aim of the campaign is to inform others about the dangers posed to sea creatures and the ocean, and what can be done to help. Pupils will work together to share the information they've gathered whilst on their trip to SEA LIFE.




Back at school, hand pupils back their activity packs where they should make thoughtful notes on page eight.

Give pupils enough time to complete their campaigns.




They may wish to think about certain threats, habitats, or the creatures they've learnt about on the trip.

Examples of threats include over-fishing, coral bleaching, melting ice caps, or plastic pollution.

Some ideas of how to incorporate the campaign into lesson planning include:

-  An English / literacy lesson sequence, writing to inform or persuade an audience.
-  A computing lesson sequence, using design software to create a poster or presentation to present their campaign.
-  An art lesson sequence, using a range of materials and imagery to showcase their campaigns and influence people's attitudes.

Encourage pupils to share their campaigns with their audience. This could be done by:

-  Making a display around school
-  Hosting an assembly showcasing their work
-  Sharing their work on the school website or in the newsletter



Please recycle all activity packs when campaigns have been completed and pupils no longer need them.

Curriculum objectives

Outlined below are the main relevant curriculum objectives for varying national curricula, so you can see how this trip and activity pack support your curriculum teaching / lesson planning.

England National Curriculum

Key Stage 1 Science	Lower Key Stage 2 Science	Upper Key Stage 2 Science
<p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>Describe and compare the structure of a variety of common animals.</p> <p>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.</p> <p>Identify and name a variety of plants and animals in their habitats, including microhabitats.</p>	<p>Recognise that living things can be grouped in a variety of ways.</p> <p>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p>	<p>Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.</p> <p>Give reasons for classifying plants and animals based on specific characteristics.</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p>

Curriculum objectives (continued)

Scotland Curriculum for Excellence:

Sciences: Planet Earth – Biodiversity and Independence

Early	First	Second
I have observed living things in the environment over time and am becoming aware of how they depend on each other.	I can distinguish between living and non living things. I can sort living things into groups and explain my decisions.	I can identify and classify examples of living things, past and present, to help me appreciate their diversity. I can relate physical and behavioural characteristics to their survival or extinction. <hr/> I have contributed to the design or conservation of a wildlife area.

Activity Pack answers

What am I? — page 5

1. Seahorse
2. Shark tank
3. The Coral Reef Tank with Clownfish

Habitat heroes — page 7 (ages 5-7)

1. No — oil spill
2. No — damaged coral reef
3. Yes — healthy, well-protected habitat
4. No — plastic pollution

Save our sea creatures — page 7 (ages 7-11)

1. A
2. D
3. B
4. C

Glossary

Use the following definitions to explain some of the key concepts found in the video and activity pack to your pupils.

Amphibian: Amphibians are cold-blooded vertebrates that don't have scales. They live part of their lives in water and part on land. e.g. frogs and salamanders.

Bird: Birds are warm-blooded vertebrates and are the only animals with feathers. Although all birds have wings, a few species can't fly.

Classification: The process of dividing animals into groups by looking at the similarities and differences between them. Animals can be divided into two main groups (vertebrates and invertebrates).

Classify: The act of dividing animals into groups by looking at similarities and differences between them.

Fish: Fish are vertebrates that live in water. They breathe using special organs called gills.

Habitat: A habitat is the home of an animal or a plant. The two main types of habitats are land habitats and water habitats.

Invertebrate: Animals that do not have a backbone.

Mammal: Mammals are warm-blooded vertebrates with hair. Female mammals produce milk for their young. Humans are an example of mammals.

Physical feature(s): The features of an animal that you can see. For example, its size, shape, colour, texture, and other body parts they may have. These features are unique to each animal and help them adapt to and survive in their environment.

Reptiles: Reptiles are cold-blooded vertebrates. They have dry skin covered with scales or bony plates and usually lay soft-shelled eggs.

Species: A group of living organisms that share characteristics and can mate with each other to produce offspring.

Vertebrate: An animal that has a backbone.

Ages 5-7 activity pack preview

Save Our Seas: The Rangers Challenge

Activity Pack

Ages 5-7

SEA LIFE EDUCATION

Welcome to SEA LIFE!

Today you will learn lots of new information about how we can protect sea creatures and their habitats from danger.

Remember: a 'sea creature' is an animal that lives in the sea.

Remember: a 'habitat' is where the sea creature lives.

Fact hunter
Write down three facts about the ocean or the sea creatures that interest you the most.

Challenge: Are there any additional facts that you can remember and share back at school?

Write your names here:

The sea creature you will be looking out for today is:

Look out for information about each of the creatures' habitats to help you!
Remember, you can return to this page throughout the trip.

All about me

Can you spot these sea creatures around SEA LIFE? Fill in the missing information about them.

Seahorse
Use three words to describe my appearance:
What type of seahorse am I?

Starfish
Use three words to describe my appearance:
What type of starfish am I?

Shark
Use three words to describe my appearance:
What type of shark am I?

What am I?
Take a look around, can you guess the sea creature or where they live at SEA LIFE?

I have a fin on my back and a useful tail that helps me pick up objects.
Can you guess the sea creature?

In this habitat you will find large sea creatures who have very sharp teeth!
Can you guess the habitat?

This habitat holds a beautiful selection of fish. There's a special fish, with a colourful body and bright white stripes, which you might have seen before in a movie!
Can you guess the habitat?

Challenge: Do you notice a feature of these creatures that helps them survive in their habitat?

Creature study

Remember the sea creature that you were asked to look out for? Write down what you notice about how it looks (its appearance) and where it lives (its habitat). Look out for information near the creature's habitat to help you!

What does this sea creature look like?
What is this sea creature's habitat like?

Challenge: What do you think this sea creature eats?

Habitat heroes

You can complete this activity after visiting the Ocean Tunnel. In teams, look at the pictures below. Do you think the habitat is safe for a sea creature? Circle 'Yes' or 'No'.

- The ocean with an oil spill.
Do you think the habitat is safe for a sea creature? **Yes No**
- A damaged coral reef.
Do you think the habitat is safe for a sea creature? **Yes No**
- A well-protected ocean.
Do you think the habitat is safe for a sea creature? **Yes No**
- The ocean with plastic pollution.
Do you think the habitat is safe for a sea creature? **Yes No**

Challenge: Can you think of any other ways that sea creatures might be put in danger?

Create your campaign!

This activity is for you to complete after your trip. We set you a challenge to help us save our seas. Now it's time to share the most important information you've learnt on the trip with your school.

In teams, think about how you will tell others about how to protect the ocean, its sea creatures, and their habitats, from danger. You can think about one sea creature you've learnt about on the trip or the ocean in general.

Once you've collected your information, start your campaign and help save our sea creatures!

SEA LIFE EDUCATION

Ages 7-11 activity pack preview

Save Our Seas: The Rangers Challenge

Activity Pack

Ages 7 - 11

SEA LIFE EDUCATION

Welcome to SEA LIFE!

Before your visit you were set a challenge to collect information about sea creatures and their habitats, and to figure out how we can help protect them.

Now, it is your job to complete these activities as you learn new things about marine conservation and how we can protect our seas.

Fact hunter

As you walk around SEA LIFE, write down five facts that interest your team the most. This can be about the sea creatures you come across, or the ocean in general.

Challenge: Are there any additional facts that you can remember and share back at school?

Look out for information about each of the creatures' habitats to help you! Remember, you can return to this page throughout the trip.

Write your team name here: _____

Write down the name of the sea creature which your group has been asked to look out for: _____

All about me

Can you spot these sea creatures around SEA LIFE? Fill in the missing information about them.

Seahorse

Use three words to describe my appearance: _____

What type of seahorse am I? _____

Starfish

Use three words to describe my appearance: _____

What type of starfish am I? _____

Shark

Use three words to describe my appearance: _____

What type of shark am I? _____

Ray

Use three words to describe my appearance: _____

What type of ray am I? _____

Challenge: Do you notice a feature of these creatures that helps them survive in their habitat?

What am I?

We have given you a list of clues about three locations or creatures you will spot as you walk around SEA LIFE. See if you can guess what is being described.

Usually, I am found in tropical waters, but today you can find me in my special kingdom. I have a dorsal fin on my back, as well as a useful tail that can grab objects. I am a master at camouflaging myself amongst the sea plants!

Can you guess which sea creature is being described? _____

Inside this habitat, you will find sea creatures that have lived for more than 400 million years, meaning that these creatures existed before dinosaurs did! These creatures have gills, but the first thing you might notice are their enormous, sharp teeth.

Can you guess which habitat is being described? _____

In this habitat, you will find a beautiful selection of creatures. There's one in particular you might recognise from a movie with an orange body and white stripes. This habitat also holds special secrets – what you might think are pieces of rock are actually living organisms!

Can you guess the habitat and sea creature? _____

Features of creatures

This activity is about the sea creature you have been told to focus on. How is this sea creature different from others? Describe in more detail how we can classify this sea creature.

What are the main features of this sea creature? Describe its physical appearance and structure.

How would you classify this sea creature – invertebrate or vertebrate (e.g. mammal, bird, reptile, fish, amphibian)?

How do you know that this sea creature falls into its classification?

Which of its physical features help this creature survive in its environment? (e.g. fish have gills to breathe underwater)

Challenge: Do you know if this sea creature is at risk of extinction?

Save our sea creatures

You can complete this activity after you visit the Ocean Tunnel. In teams, read through each scenario and circle the solution you think is the best way to help keep our sea creatures from danger.

Scenario 1: Large amounts of plastic waste produced by humans are ending up in the sea. This is not only affecting the environment in which fish can live, but also some sea creatures are swallowing the waste, which harms them.

Circle one solution: **A B C D**

Scenario 2: On occasions, oil spills from ships can occur. This thick, sticky substance coats beaches, smothers ocean plant life, and can kill a wide variety of sea creatures including fish, sea birds and mammals.

Circle one solution: **A B C D**

Scenario 3: Drilling or mining through rocks that exist under the ocean bed means that certain habitats have been destroyed. This has particularly affected areas of the coral reef.

Circle one solution: **A B C D**

Scenario 4: Over-fishing has destroyed the number and types of fish that are living in the sea. When too much fishing takes place, there are not enough adult fish to breed to make more fish. This means that some species are at risk of extinction.

Circle one solution: **A B C D**

Solution A: Reduce the amount of plastic that may end up in the sea by reusing and recycling.

Solution B: Use more sustainable energy sources, such as solar or wind energy, so less oil is used.

Solution C: Encourage people to eat more vegetarian options, so fewer fish are caught to feed people.

Solution D: Raise awareness of the beauty of coral so that under-sea drilling does not occur here.

Challenge: Are there any other scenarios you can think of that put sea creatures in danger? How would you solve these?

Create your campaign!

This activity is for you to complete after your trip. We set you a challenge to help us save our seas. Now it's time to share the most important information you've learnt on the trip with your school.

In your teams, think about what you can do to spread the word on threats to the ocean or the sea creatures you learnt about on the trip and what we can do to protect them. You might want to focus on a particular creature or the ocean in general.

Once you've collected your information, start your campaign and help save our sea creatures!

SEA LIFE EDUCATION