

Oceans for beginners

X-Curric | Ages 5 - 7



A resource by Encounter Edu and Common Seas

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Common Seas

Common Seas is a not-for-profit enterprise that researches, designs and implements practical project-based solutions to our global plastic pollution crisis. Our mission is to quickly and significantly reduce the amount of plastic waste produced and stop it polluting rivers and seas.

Encounter Edu

Encounter Edu designs and runs STEM and Global Citizenship education programmes, which make use of virtual exchange, live broadcast and virtual reality. These technologies create classroom encounters that widen young people's world view. Learning is further underpinned by an online library of teacher resources and training. Combined, these provide children with the experience and knowledge to develop as engaged citizens and critical thinkers for the 21st Century.

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Welcome to the Ocean Plastics Academy



Marine plastic pollution is a visible and pervasive environmental issue affecting all oceans. Recent media coverage has raised awareness of the topic, encouraging politicians, businesses and the general public to take much-needed action.

Common Seas believes that education can be an important part of the solution to addressing marine plastic pollution. The recent popularity of the topic of marine plastics has meant that there is a wealth of information and ideas for action scattered across the internet and other media.

Common Seas uniquely provides teachers with a full suite of resources across science, geography, and design and technology across Key Stages 1 to 3, that are designed to fulfil the English National Curriculum teaching requirements. Providing teachers with off the shelf lesson plans, presentations and activities they can choose to deliver in their entirety or use sections as appropriate.

Supporting a more sustainable relationship with the environment is not a quick fix, but a multi-generational endeavour. This is why Common Seas works with a range of partners to move marine plastics education from an important side issue into the mainstream.

Jo Royle
Managing Director
Common Seas

About the Ocean Plastics Academy



What is the Ocean Plastics Academy?

Achieving the aim of plastic-free seas is likely to be a multi-generational endeavour. As with any environmental crisis, the important place to start is from a shared understanding of the problem and then move to solutions both in terms of individual behavioural change and advocating for changes at wider scales from the community-level upwards.

Literacy is the starting point for the education programme. A shared understanding of plastics across its entire life cycle including its impact on the marine environment is crucial in developing appropriate responses and informing action on a personal and community level. A plastics literate population will also be able to inform good governance, both as leaders and voters.

However you choose to address the issue of marine plastic pollution in your classroom, it can be hard to know what children should know. Common Seas has used the UNESCO Learning Objectives for the ocean¹ as a basis for creating a set of Ocean Plastics Learning Objectives to support educators in designing an appropriate set of learning opportunities for students. These learning objectives are listed in following section.

Literacy on its own is not enough and Common Seas will also be developing engagement tools that help to shift literacy into action, so do keep in touch!

How do I use the Ocean Plastics Academy?

These resources have been designed to be an off-the-shelf teaching tool for your classroom. Of course, you know your students better than anyone and may want to adapt and change to suit your needs.

You will find a suite of supporting multimedia resources online, and these are referenced throughout the lesson plans. It is assumed that you have access to a digital projector or interactive white board to display these resources and accompanying slideshows. Students with individual devices can also view multimedia without needing an account.

Is the Ocean Plastics Academy curriculum aligned?

Ocean Plastics Academy are aligned to the National Curriculum for England programmes of study for science, geography and design and technology. As the Ocean Plastics Academy develops, we will align the resources to additional curricula and standards.

¹ UNESCO Ocean literacy for all: a toolkit <https://unesdoc.unesco.org/ark:/48223/pf0000260721> (see page 24)

Learning objectives

Common Seas has worked with partners to create a set of universal Ocean Plastics Learning Objectives, utilising the frameworks developed by UNESCO and those working for Ocean Literacy. These learning objectives are listed below and are subscribed to by Common Seas Ocean Plastics Academy partners. We hope that these overarching learning objectives are useful to other individuals and organisations planning their own education programming to help a plastic waste free future.

Oceans for beginners 5-7			
Ocean Plastics learning objective	Lessons		
	1	2	3
Cognitive learning objectives			
• The learner understands the fundamental properties of plastics, including the use of additives.			
• The learner understands the scope and geographical scale of plastic use and plastic pollution historically as well as current predictions.			✓
• The learner understands the pathways through which plastics enter the ocean and marine life.			
• The learner understands the social, environmental and economic cost of plastics across its entire life cycle.			✓
• The learner can identify and evaluate ways to improve the sustainability of plastics at different stages of the product life cycle ¹ .			
Socio-emotional learning objectives			
• The learner can reflect on their own use of plastics, and how this use might affect the marine environment.			✓
• The learner actively seeks alternative designs, behaviours and practices that reduce their contribution to plastic pollution.			
• The learner can communicate the societal and environmental impacts of plastic use, referring to the scientific evidence base.			
• The learner is able to influence the behaviours and practices of others in their community in terms of plastic use and management.			
• The learner can collaborate at a range of scales to campaign for the reduction of plastic pollution.			
Behavioural learning objectives			
• The learner is able to access and improve waste management systems in their local area.			
• The learner can plan and implement campaigns that lead to a reduction in plastic pollution at a range of scales.			
• The learner is able to evaluate media narratives about plastic pollution and present a balanced judgement to their peers.			
• The learner is able to make informed decisions as a consumer to reduce plastic pollution.			
• The learner is able to research different approaches to design, including circularity and biomimicry.			

¹ Including improved design, alternative materials, waste management and individual behaviour.

Applicable standards

National Curriculum for England

KS1 Science			
Element of the curriculum	Lessons		
	1	2	3
Living things and their habitats			
• Identify and name a variety of plants and animals in their habitats.	✓	✓	✓
• Identify and name a variety of common animals.	✓	✓	✓
• 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.	✓	✓	✓
• Describe how animals obtain their food from plants and other animals.	✓	✓	✓
Working scientifically			
• Ask simple questions and recognise that they can be answered in different ways.	✓	✓	✓
• Use observations and ideas to suggest answers to questions.	✓	✓	✓

SCHEME OF WORK

Lesson 1: Our wonderful oceans 5-7

Overview

This lesson introduces students to the marine habitat and the wealth and diversity of life found in the ocean.

Students will learn about different ocean zones, play a game of marine snap and study some iconic marine species.

Learning outcomes

- Name a variety of marine species
- Understand the scale of the ocean and the species that live there
- Identify features of living things
- Record and present findings
- Ask questions and reflect on learning

Resources



Slideshow 1:
Our wonderful ocean



Student Sheet 1a:
Marine snap

Student Sheet 1b:
Marine icons facts

Student Sheet 1c:
Marine icon poster



Gallery:
Living reef

Gallery:
Deep sea creatures

Gallery:
The Great Barrier Reef



Diagram:
Deep ocean poster

Lesson 2: Our oceans and us 5-7

Overview

Students will learn about and reflect on different ecosystem goods and services provided by the ocean through a quiz. Followed by a group task to create a diorama demonstrating how symbiotic our relationship with the ocean is.

Learning outcomes

- Understand how we rely on the oceans
- Give examples of what we get from the ocean
- Use knowledge and understanding to plan a group project
- Justify and explain choices

Resources



Slideshow 2:
Our ocean and us



Activity Overview 2a:
Diorama



Student Sheet 2a:
Diorama backdrop



Thinglink:
Using our seas interactive

Lesson 3: Our ocean in crisis 5-7

Overview

Students are introduced to some facts about marine plastics pollution. Students then find out about an 'Ocean hero' and record facts about them and finally reflect on what they can do to make a difference.

Learning outcomes

- Understand facts about plastics pollution
- Research an 'Ocean hero'
- Draw pictures and write about a significant person
- Present work to an audience

Resources



Slideshow 3:
Our ocean in crisis



Student Sheet 3a:
Ocean hero portrait

Teacher guidance

The Teacher Guidance for each lesson uses a set of icons as seen below to provide visual clues to support teachers:

Lesson activities

**Explain**

teacher exposition using slides or script to support

**Demonstration / watch**

students watch a demonstration or video

**Student activity**

activity for students to complete individually such as questions on a Student Sheet

**Pair activity**

activity for students to complete in pairs

**Group work**

activity for students to complete in groups

**Whole class discussion**

teacher conducts a whole class discussion on a topic or as a plenary review

**Home learning**

home learning exercise for after school or alternatively, a lesson extension

Teacher ideas and guidance

**Assessment and feedback**

guidance to get the most from AfL (Assessment for Learning)

**Guidance**

further information on how to run an activity or learning step

**Idea**

optional idea to extend or differentiate an activity or learning step

**Information**

background or further information to guide an activity or explanation

**Technical**

specific ICT or practical hints and tips

**Health and safety**

health and safety information on a specific activity

Lesson 1: Our wonderful oceans 5-7

This lesson introduces students to the marine habitat and the wealth and diversity of life found in the ocean. Students learn about different ocean zones, play a game of marine snap and study five iconic marine species.

Resources in this book:



Lesson Overview 1



Teacher Guidance 1



Student Sheet 1a: Marine snap

Student Sheet 1b: Marine icons facts

Student Sheet 1c: Marine icon poster

Resources available online:



Slideshow 1: Our wonderful oceans



Gallery: Living reef

Gallery: Deep-sea creatures

Gallery: The Great Barrier Reef



Diagram: Deep ocean poster



Subject Update: How many oceans are there?

All resources can be downloaded from:
encounteredu.com/teachers/units/oceans-for-beginners-x-curric-ages-5-7

Our wonderful oceans



Age 5-7



60 minutes

Curriculum links

- Recognise the diversity and range of ocean habitats
- Identify and recall facts about marine species

Resources



Slideshow 1:
Our wonderful oceans



Student Sheet 1a:
Marine snap

Student Sheet 1b:
Marine icons facts

Student Sheet 1c:
Marine icon poster



Gallery:
Living reef

Gallery:
Deep sea creatures

Gallery:
The Great Barrier Reef



Diagram:
Deep ocean poster



Subject Update:
Learn more: How many oceans are there?

Extension or home learning

Students choose a different iconic marine species and create a postcard with pictures and information to send to the headteacher.

Lesson overview

This lesson introduces the marine habitat and encourages a discussion around what students already know about the ocean. Students use globes and maps to discover that we live on a blue planet. Students play a game of marine snap, matching animals to their features. They then find out about some iconic marine creatures and make a fact sheet about their favourite.

Lesson steps

Learning outcomes

1. Ocean habitat introduction (5 mins)

Students are introduced to the marine habitat and share their prior knowledge about the ocean and the creatures that reside there.

- Name a variety of marine species

2. The blue planet (15 mins)

Students study maps and globes to discover how much of the earth is covered in water. They then look at galleries about iconic marine species and play a game of marine snap.

- Understand the scale of the ocean and the species that live there

3. Ocean icons (15 mins)

Students are introduced to five iconic species, from a range of ocean habitats and gather facts about these species.

- Identify features of living things

4. Creating a poster (15 mins)

They then create a fact-sheet poster about their favourite species, drawing and labelling their features.

- Record and present findings

5. Reflection (10 mins)

In pairs students recall three things about the ocean they learnt today. The class reflects on what else they would like to know.

- Ask questions and reflect on learning

Step Guidance

Resources

1
5
mins



Step 1 introduces students to the marine habitat and asks them to share their prior knowledge about oceans and the creatures that reside there.

- Use slides 2-4 to introduce the lesson and the learning outcomes.
- Ask students to share what they know about the ocean with a partner and take feedback.
- Explain that in pairs, students will have 30 seconds to name as many marine animals as they can think of, keeping a tally on mini-whiteboards. Encourage them to avoid repetition.
- Students share how many they listed.

Slideshow 1:
Slides 1-4

2
15
mins



Step 2 involves students studying maps and globes to discover the scale of the oceans. Students look at galleries to understand the depth of the ocean and explore life in different ocean zones.

- Using maps, globes and slides 5-6 explain that it is sometimes referred to as a blue planet due to 71% of the planet being covered in water.
- Display slide 7, explain that there are five oceans; Atlantic, Arctic, Indian, Pacific and Southern.
- Ask students to locate them on maps and globes.
- Show the Diagram: Deep ocean poster to demonstrate how deep the different zones are and how life varies depending on depth.
- Look at the Galleries: Living reef, Deep-sea creatures, The Great Barrier Reef and allow students to ask questions and share their thoughts about the variety of marine species.
- Hand out Student Sheet 1a, which has been cut into cards. In pairs or small groups students play snap with the marine animal cards. The winner has the most cards at the end of the game.

Slideshow 1:
Slides 5-11

Student Sheet 1a:
Marine snap

Gallery:
Living reef

Gallery:
Deep-sea creatures

Gallery:
The Great Barrier Reef

Diagram:
Deep Ocean Poster




3
15
mins



Step 3 introduces students to five marine icons from a range of ocean habitats.

- Look at and read from slides 12-16 to introduce the marine icons: tiger shark, green turtle, Japanese spider crab, bottlenose dolphin and sea pig.
- Explain that students should choose (or you can allocate) one of the marine icons to create a poster about. If you have access to tablets or laptops students can also visit encounteredu.com/discover/collections/ocean-for-beginners and look at the galleries to gather further information.

Slideshow 1:
Slides 12-16

Step	Guidance	Resources
4 15 mins	 <p>In step 4 students use information they have gathered to make a marine icon poster.</p> <ul style="list-style-type: none"> · Explain that students will be drawing a picture of their marine icon and adding facts to their poster. · Cut up Student Sheet 1b and distribute cards on tables. · Explain to students that they will find facts on their tables about all five marine icons. · They should look through the facts and find the ones which relate to their marine icon. · They can then stick them around their drawing, copy them out or adapt into their own words. · Each fact-card has a small symbol in the corner indicating which icon they refer to. You can differentiate this task for more able readers by simply cutting off the icon at the bottom of each fact-card. 	<p>Slideshow 1: Slide 17</p> <p>Students Sheet 1b: Marine icons facts</p> <p>Student Sheet 1c: Marine icon poster</p>
5 10 mins	 <p>Step 5 asks students to reflect on their learning and think of questions that they would like to find out more about.</p> <ul style="list-style-type: none"> · In pairs students recall three facts they learnt today. · Allow students to ask questions, this can be used as an opportunity to clear up any misconceptions or write a list of further questions for investigation. · You may wish students to share their posters with the class or put them up on display. · Review learning outcomes with a show of hands. 	<p>Slideshow 1: Slides 18-20</p>
+ 10 mins	 <p>Students choose a different iconic marine species and create a postcard with pictures and information to send to the headteacher.</p>	

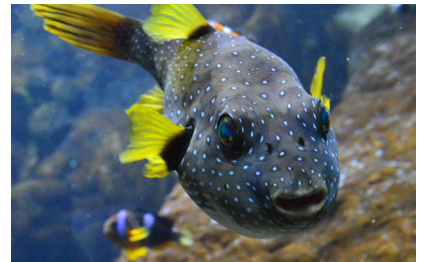
Marine snap



Clownfish live in and near sea anemones.



A dolphin's white tummy makes it less obvious to predators below.



Puffer fish can quickly swallow water when predators appear, transforming into an incredible ball!



Stonefish have bumpy skin which gives them a rock-like appearance.



Sea sponges use their pores to filter water for food and oxygen.



Sea dragons hide perfectly in seaweed.





Blue whales are the largest animals to have ever lived on Earth.



Cuttlefish can change colour to escape capture.



The **great white shark** has about 300 teeth, arranged in seven rows.



Although they usually have five arms, some **starfish** have many more.



Sea turtles migrate through the ocean travelling up to 2,250km.



Seahorses use their tails to hold onto sea grass so they don't get washed away.



The largest **giant squid** was 18m long – the same length as a bus!



Lobsters have long bodies and large, strong claws. They live in crevices in the rocks.



Anemones use their tentacles to trap their prey.



The **Japanese spider crab** has eight legs and two long, clawed forearms.



This **octopus**' blue rings flash brightly when it feels threatened.



The female **anglerfish** uses a light-producing organ to attract her prey in the dark.



Lionfish use their feathery fins to attract and stun their prey.



Some **jellyfish** can glow in the dark.

Marine icon facts



They live all over the world.



They are excellent swimmers because of their arrow-like shape.



They are some of the cleverest animals on Earth because of their large brains.



They cannot breathe underwater and must rise to the surface to breathe.



They breathe through a hole in the top of their head.



They eat fish, squid and crustaceans.



They talk to each other by making clicking sounds underwater.



Instead of ears they hear by feeling vibrations through their heads.





They are the top predator on the Great Barrier Reef.



They get their name from the dark stripes along their sides.



They are solitary creatures, mainly hunting at night.



They lose a set of teeth inside their mother's tummy before they're even born.



They have five sets of gills.



They shoot their stomach out of their mouths after a meal, to give it a rinse.



They are carnivores which mean they eat meat.



They are found close to the coast in warmer waters.



There are seven species of sea turtle.



They lay their eggs in pits they dig on island beaches.



Their eggs are made of a soft, bouncy material so they don't break when they hit the sand.



Females return to the beaches where they hatched to lay their eggs.



They don't have teeth, instead their jaws have sharp edges that they use to slice through their food.



They eat sea grass and algae.



They have see-through eyelids that they use like a pair of goggles to see underwater.



They can weigh up to 160kg.



Their leg span can reach up to 5.5 meters.



Their bodies can grow to be up to 40cm across.



They are omnivores which means they eat both plants and animals.



They are scavengers which means they eat dead animals.



They have eyes on stalks, so they can look for danger in two directions at once.



They have been found as deep as 300 meters.



They have two big front claws which they use to cut up and crush their food.



They wave their claws and tap on rocks to communicate with others.



They are a type of sea cucumber.



They live at depths of up to 5 kilometers.



They have legs but these are not true legs, instead water filled tubes attached to their sides.



They vacuum the sand, sucking up rotting tissue for food.



They gather in large numbers and often all face in the same direction.



They live in the darkest part of the ocean.



They host parasites, little snails that burrow into their flesh.



They measure 5-10 cm in length.



Marine icon poster



Lesson 2:

Our oceans and us 5-7

In this lesson students learn about how we use the sea through a quiz and reflect on how dependent we all are on the ocean for resources. Students create a 3D diorama to illustrate this.

Resources in this book:



Lesson Overview 2



Teacher Guidance 2



Activity Overview 2a: Ocean diorama



Student Sheet 2a: Diorama background

Resources available online:



Slideshow 2: Our oceans and us



Thinglink: Using our seas interactive

All resources can be downloaded from:

encounteredu.com/teachers/units/oceans-for-beginners-x-curric-ages-5-7

Our oceans and us



Age 5-7



60 minutes

Curriculum links

- Understand how we use the ocean
- Reflect on how important ocean health is for the whole planet

Resources



Slideshow 2:
Our oceans and us



Activity Overview 2a:
Diorama



Student Sheet 2a:
Diorama backdrop



Thinglink:
Using our seas interactive

Extension or home learning

In preparation for next lesson, students keep a recycling diary for the coming week, which documents any items they throw away, what the material was and whether it was possible to recycle it.

Lesson overview

In this lesson students are introduced to the ways in which we use the ocean and discuss and share their knowledge. Students work in groups to plan and create a diorama which illustrates some of the ways we use the ocean. Students also reflect on how damaging this ecosystem could be detrimental for all of us.

Lesson steps

Learning outcomes

1. How do we depend on the ocean? (10 mins)

Students are asked to reflect on how we rely on the oceans and explore some of the ways we depend on the ocean such as food, transport and livelihoods.

- Understand how we rely on the oceans

2. Goods and services quiz (10 mins)

Students take a quiz and discuss the many ways we rely on the ocean.

- Give examples of what we get from the ocean

3. Diorama time (30 mins)

In groups using plasticine, building blocks, construction materials, collage or other media, students construct a 3D diorama of the ocean which demonstrates its goods and services.

- Use knowledge and understanding to plan a group project

4. Presentation (10 mins)

Groups take turns to display and describe their diorama, explaining each aspect of it and how it relates to the ocean ecosystem.

- Justify and explain choices

Step Guidance

Resources

1
10
mins



In step 1 students are asked to reflect on how we rely on the ocean and explore some of the ways we depend on it.

- Using slides 3-4 ask students if they can think of anything the sea does for us? What do we get from the sea? How does the sea help us? What do we use the sea for? Discuss their ideas and encourage those with secure subject knowledge to explain their ideas to the class.
- Mind map students' responses of how we use the sea.

Slideshow 2:
Slides 1-4

2
10
mins



Step 2 sees students take part in a mini-quiz about how we use the sea and how the sea helps us.

- Students can work in pairs or small groups.
- Give each group mini-whiteboards and pens, yes-no flashcards, or explain they can answer with thumbs-up or thumbs-down.
- Explain that you will read them a statement and they should decide in their groups whether it is true or false.
- Using slides 5-17 read out each statement, give students a time to discuss their answer and then ask them to decide whether it is true or false.
- After each statement, show the following slide and talk through the information, giving students time to comment and ask questions.
- After the quiz use slide 18 and the Thinglink to display some of the different ways in which we use the ocean. If students have access to tablets or laptops, they can explore this interactive resource in pairs or small groups.

Slideshow 2:
Slides 5-18

Thinglink:
Using our seas interactive

3
30
mins



Step 3 is a design technology task where students create a diorama which illustrates some of the ways we use the sea.



- Display slide 19 which demonstrates what a diorama looks like.
- Explain to students that in their groups they will be constructing their own simple diorama which illustrates some of the ways we use the ocean and how it helps us.
- Draw student's attention to the range of materials they can use to create their diorama. This may include plasticine, construction or collage materials.
- Use Activity Overview 2a to run the activity.

Slideshow 2:
Slide 19

Activity Overview 2a:
Diorama

Student Sheet 2a:
Diorama backdrop

TEACHER GUIDANCE 2 (page 2 of 2)

Step	Guidance	Resources
4 10 mins	 <p>In step 4 students take turns to display and describe their dioramas.</p> <ul style="list-style-type: none">· Ask each group to present their diorama to the class, pointing out each aspect of how the ocean helps us.· Ask each group to consider what might happen if we don't look after the ocean and take feedback.	Slideshow 2: Slides 20-21
+ 10 mins	 <p>Ask students to keep a recycling diary for the coming week, recording any items they throw away, what the material was and whether it was possible to recycle it.</p>	

Ocean diorama



Age 5+
(adult supervision)



30 minutes

Details

What you need

- 1 large cardboard box per group (i.e. shoe box)
- Craft materials such as plasticine, construction paper, junk modelling, old newspapers and magazines for collage
- Alternatively, you could use building blocks or similar construction equipment

Safety and Guidance



Precautions

Care should be taken when using scissors.

Overview

A diorama is a model representing a scene with three-dimensional figures. In this activity you can construct a 3D model, to illustrate some of the ways we use the sea, known as ecosystem goods and services. You may need to collect recycling and/or materials for junk-modelling before starting.

Preparation

You may need to ask students to bring in recycling and materials for junk-modelling before the session.

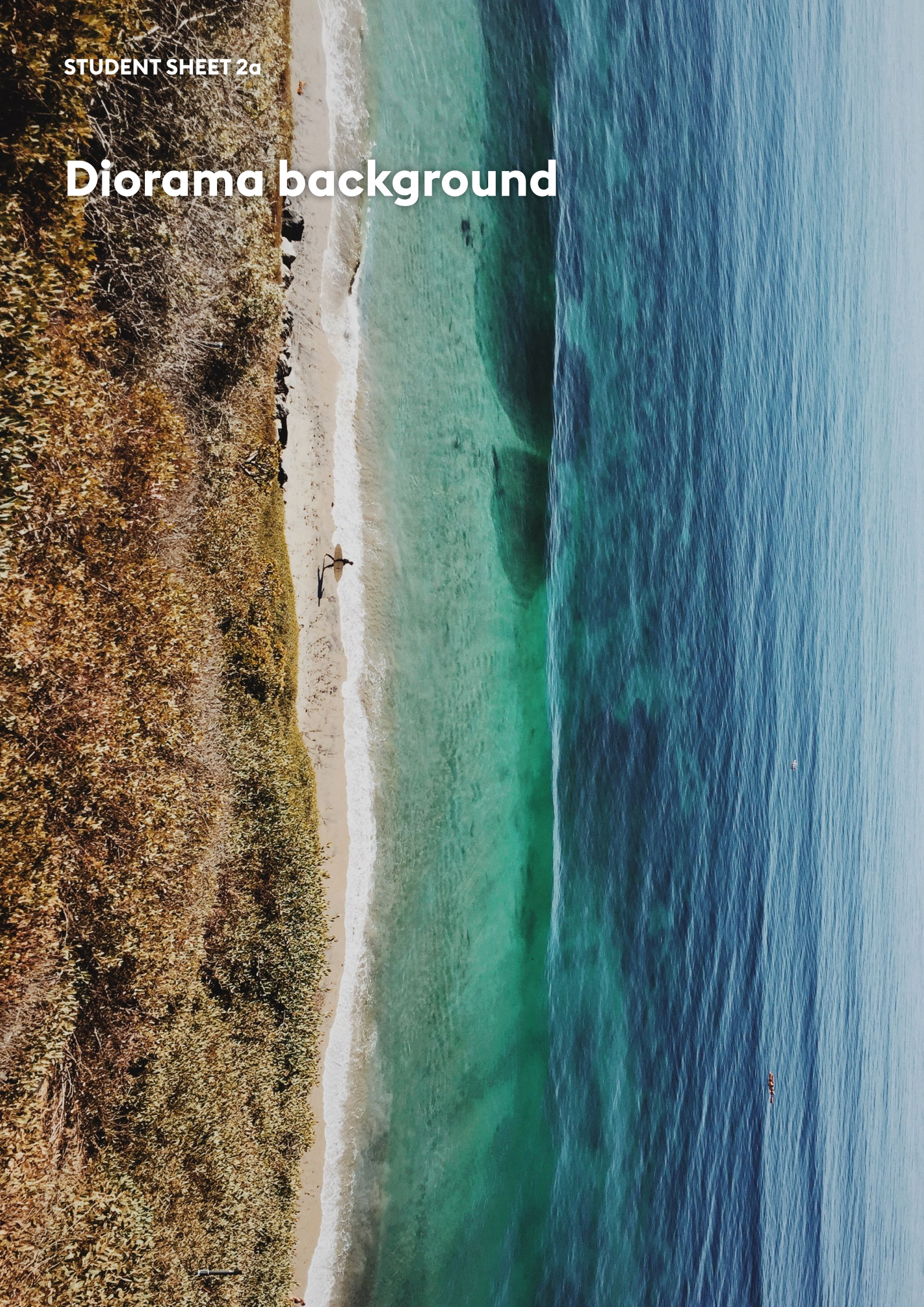
Running the activity

1. Explain that the students will use the shoe box to create a 'stage'. This is done by turning the box on its side.
2. Students can use Student Sheet 2a: Diorama Background to form the background of their diorama, or you may wish them to draw, paint or collage the background. They will need to create the ocean on the floor of the 'stage'.
3. Using craft (or construction) materials students then make models which illustrate some of the ways we use the ocean. For example, they could make a model of someone fishing, people eating at a restaurant, tourists snorkelling or people out on boats.



STUDENT SHEET 2a

Diorama background



Lesson 3:

Our ocean in crisis 5-7

In this lesson students will be introduced to the idea of marine plastics pollution. Students will find out about an 'ocean hero' and reflect on what they can do to make a difference.

Resources in this book:



Lesson Overview 3



Teacher Guidance 3



Student Sheet 3a: Ocean hero portrait

Resources available online:



Slideshow 3: Our ocean in crisis



Subject Update: Marine plastics facts and figures

All resources can be downloaded from:

encounteredu.com/teachers/units/oceans-for-beginners-x-curric-ages-5-7

Our ocean and us



Age 5-7



60 minutes

Curriculum links

- Understand how plastics can cause pollution
- Investigate an 'Ocean hero' and understand their impact
- Reflect on their own impact on ocean health

Resources



Slideshow 3:
Our oceans in crisis



Student Sheet 3a:
Ocean hero portrait



Subject Update:
Learn more: Marine plastics facts and figures

Extension or home learning

Students pledge to change one thing that will help our oceans.

Lesson overview

This lesson introduces students to the idea that plastics can damage the ocean. Students find out about an 'Ocean hero' and their achievements and create a portrait of that hero sharing what they achieved. For home learning, students make a pledge to change one thing to help the oceans.

Lesson steps

Learning outcomes

1. Plastics pollution (15 mins)

Students are introduced to the idea that plastics damage the ocean and discuss ways this occurs.

- Understand facts about plastics pollution

2. Ocean heroes (15 mins)

Students find out about an 'Ocean hero' and what they have achieved.

- Research an 'Ocean hero'

3. My Ocean hero (20 mins)

Students create a portrait of their hero and write sentences about them.

- Draw pictures and write about a significant person

4. Presentation time (10 mins)

Students present their portraits and talk to their peers about why they chose that hero and what they have achieved. Students reflect on what they can do to make a difference to ocean health.

- Present work to an audience

Step Guidance

Resources

1
15
mins



Step 1 introduces students to the concept of ocean plastics pollution.

- Ask students what they think happens to all the rubbish we throw away. Allow time for discussion in pairs and then take some feedback.
- Explain using slides 3-7 the different ways our rubbish is disposed of.
- Ask students what might happen to rubbish that isn't disposed of in these ways, discuss how we often see litter lying on the ground.
- Using slide 8 explain that sometimes rubbish can end up in rivers and streams and then eventually ends up in the ocean.
- Explain using slide 9 that often plastic ends up in the ocean due to being thrown away or lost by the shipping or fishing industries.
- Ask students to discuss what might happen to the marine life if it comes into contact with this plastic pollution. Explain the dangers of marine plastics pollution using slides 10-13.
- Allow students an opportunity to ask questions and share their thoughts.

Slideshow 3:
Slides 1-13

2
15
mins



Step 2 introduces students to four 'Ocean Heroes' who are paving the way to improve our ocean's health and reduce plastic pollution.

- Display slides 14-17 and talk through what each individual is doing or has done to reduce marine plastics pollution.
- Explain that students should select their favourite Ocean hero and ask them to talk with a partner about why they chose that person.

Slideshow 3:
Slides 14-17

3
20
mins





Step 3 sees students create a portrait of their Ocean hero.

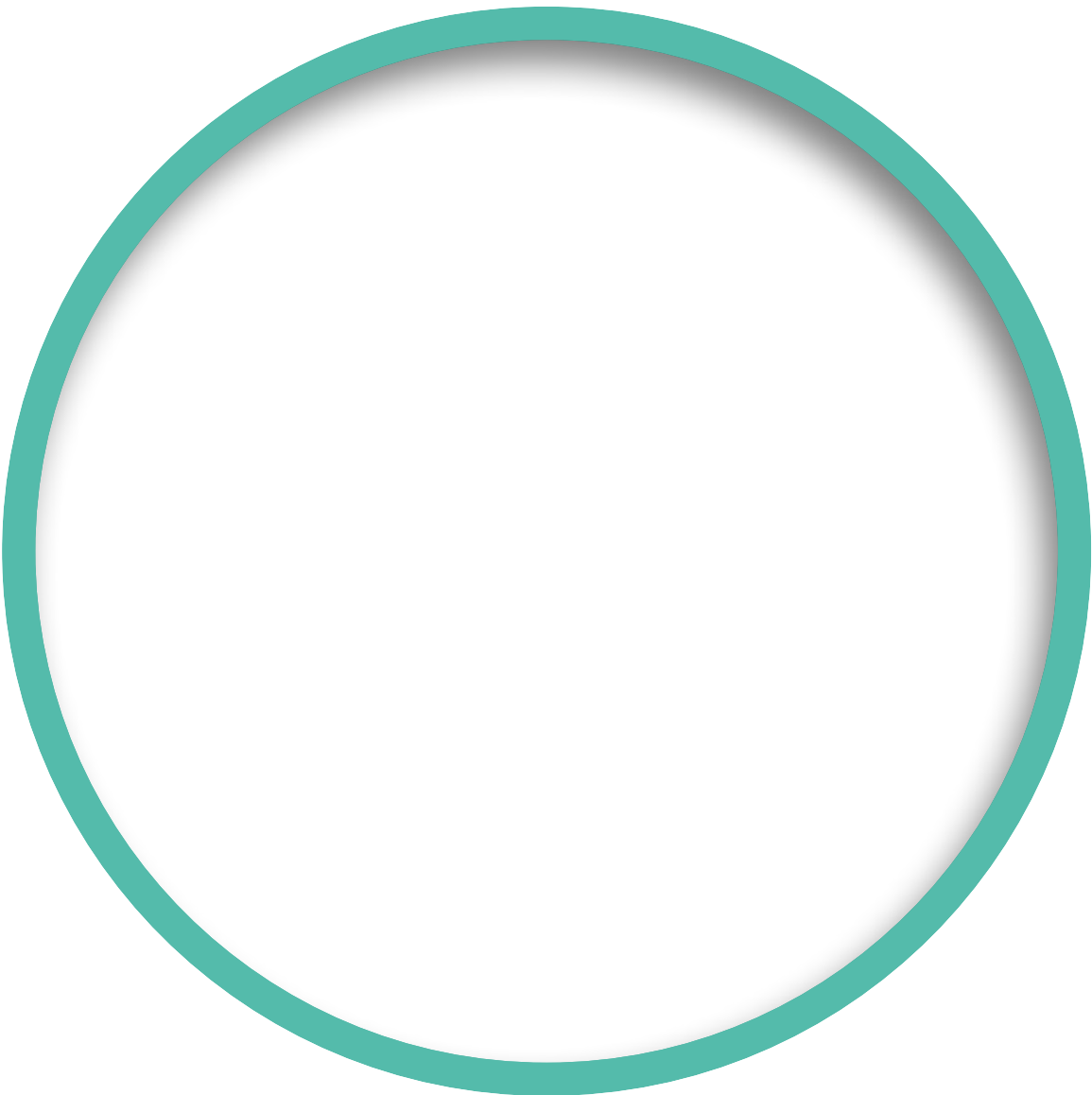
- You may wish to use paints, charcoal, crayons, collage or any other art media. Alternatively, if you have access to laptops or tablets, students could create their portrait using a digital drawing program.
- Once students have created their portraits they should write a sentence (an example of which is modelled on slide 19) naming their hero, explaining what they have done and describing why they chose them.

Slideshow 3:
Slides 18-19

Student Sheet 3a:
Ocean hero portrait

Step	Guidance	Resources
4 10 mins	 <p>Step 4 encourages students to find out what they can do to make a difference to ocean plastics pollution and make a pledge to change one thing.</p> <ul style="list-style-type: none">· Display slide 20 which has some suggestions of what we can do to make a difference to oceans plastics pollution.· Ask students in pairs to discuss what they could do to make a difference.· Students should choose one and write on a post-it-note what they pledge to do.· These pledges can form part of a classroom display and can be reviewed later in the term for students to reflect on their experiences.	Slideshow 3: Slides 20-22
+ 15 mins	 <p>Students pledge to change one thing that will help our oceans such as not using straws or reminding their parents to take reusable bags to the supermarket. Later, students can share their experiences with the class.</p>	

Ocean hero portrait



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This book and associated resources can be accessed from encounteredu.com/teachers/units/oceans-for-beginners-x-curric-ages-5-7



Videos and interactive diagrams



Individual lesson and resource downloads



Live broadcasts with scientists and innovators



Subject Updates and training courses

Other books in this series



Oceans for beginners 7-11



Oceans for beginners 11-14



Oceans for beginners 14-16

Photo credits

Cover

Boats: ThuyHaBich
Plastic waste: Jo Lanta

Student Sheet 1a

Yellow fish: Joakant
Clownfish, Stonefish, Dolphin, Lionfish: XL Catlin Seaview Survey
Great white shark: Sharkdiver.com
Puffer fish: prismatic_fanatic
Sea Dragon: Naomi Booth
Blue Whales, Giant Squid: NOAA
Cuttlefish: MartinStr
Starfish: Shilmar
Seahorse: Emiliano Gaudiello
Lobster: Sparkielyle
Anemones: Efraimstochter
Spider Crab: Hans Hillewaert
Octopus: Edmondlafoto
Anglerfish: Javontaevious
Jellyfish: Pexels

Student Sheet 1b

Shark: XL Catlin Seaview Survey

Student Sheet 1a + 1c

Sea turtle: XL Catlin Seaview Survey

Student Sheet 2a

Diorama background: Jeremy Gallman

All other photos

Encounter Edu



This series of three lessons sets the scene for students who are about to commence Ocean Plastics 5-7.

The lessons introduce students to the awe and wonder of the ocean and its inhabitants building a love for marine wildlife and a desire to protect it. The unit goes on to explore some of the many ways we depend on the ocean, from food to livelihoods.

Finally, this unit introduces students to what is meant by marine plastic pollution and highlights some of the issues which will be explored in more detail in the full Key Stage 1 unit Ocean Plastics 5-7.

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www.encounteredu.com

Encounter Edu and Common Seas have partnered to create the Ocean Plastics Academy. We believe that equipping young people with the knowledge, experience and courage to address plastic pollution is an important part of the solution. Ocean Plastics Academy supports educators by providing them with an authoritative and standards-linked set of resources aligned with the national curriculum to support students to build their knowledge on related topics year on year. www.commonseas.com