



National Marine Aquarium Schools Programme

2023-2024

Contents

PART ONE: The OCT Learning Programme	4
‘Ocean Literacy’ for all	5
Ocean in the classroom?	5
PART TWO: Aquarium Visits for Schools	6
The Learning Centre:	7
The Exhibits	8
Entry Options	12
Self-Guided ‘Explorer’ Visits	12
Interactive Visits	12
NMA Visits Activity selection	13
Activity Key Stage matrix	14
Activity Topic matrix	15
Activity Ocean Literacy matrix	16
PART THREE: Outreach Activities for Schools	17
Activity Options	17
Classroom workshops	17
Outdoor learning workshops	17
STEM shows & assemblies	17
Stand operation	17
Outreach Activities selection	18
Activity Key Stage matrix	19
Activity Topic matrix	20
Activity Ocean Literacy matrix	21
PART FOUR: Virtual Experiences for Schools	22
Activity Options	23
Virtual Tours	23
Virtual Workshops	23
Virtual Experiences selection	24
Topic matrix	24
Ocean Literacy matrix	25
Key Stage matrix	25
PART FIVE: Programmes of Study	26

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Workshops	26
Climate Conundrum	27
Creature Creations	29
Habitat Hats.....	31
Inventafish	33
Meet the Mermaid.....	35
Ocean Orators	37
Ocean Scientist	39
Plastic Seas.....	41
Shark Hoist.....	43
Under the Knife.....	45
Underwater Evolution	47
Outdoor Learning Workshops	49
Beach Art (& Clean).....	50
Plastic Seas on the Beach	52
Plymouth Sound Navigator	54
Rockpool Safari	56
Rockpool Survey.....	58
Science Ahoy!.....	60
Building Tours.....	62
Back of House (STEM) Tour.....	63
Careers Tour	65
Fisheries & Sustainability Tour.....	66
Interactive Tour.....	67
Observational Drawing Tour	68
Toddler Tour	69
Virtual Tours.....	70
Virtual Tour – Beneath the Waves	71
Virtual Tour – Changing Seas	72
Virtual Tour – Enchanted Seas	73
Virtual Workshops	74
Virtual Workshop - Dissection.....	75
Virtual Workshop - Evolution.....	77
Virtual Workshop - Mermaid	79
PART SIX: Prices	82
Booking process.....	84

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

PART ONE: The OCT Learning Programme

Hello, and welcome to the Ocean Conservation Trust (OCT) Learning Programme for Schools Guide 2023-2024

This guide describes activities available to student groups of any age, through the OCT Learning Programme, including:

- Pre-schools
- Schools
- Colleges
- Universities
- Home Educator groups

OCT is a UK based conservation charity established to restore and protect the Ocean. Our work is centred around people and positive action, focusing on inspiring Ocean advocacy through connections with nature. Since 1998 we have owned and operated the National Marine Aquarium (NMA): the UK's largest aquarium, located in Britain's Ocean City, Plymouth, on the shores of the UK's first National Marine Park - Plymouth Sound. We are home to over 4,000 marine animals and are visited by around 300,000 people per year.

The OCT Learning Programme for Schools Guide is comprised of three documents which collectively describe the Programme. The OCT Learning Programme works across the country supporting delivery of the National Curriculum through the context of marine conservation, as well as internationally on a range of globally significant educational themes. The full series includes:

- **OCT Aquarium Visits for Schools Guide** – *activities available through the Learning Programme as part of a physical visit to the National Marine Aquarium*
- **OCT Outreach Activities for Schools Guide** – *relating to the support or delivery of physical events not within the grounds of the National Marine Aquarium, for example at a school or educational event venue*
- **OCT Virtual Experiences for Schools Guide** – *relating to the support or delivery of digital, and online learning activities which can be accessed remotely through internet services*

We believe that everyone, everywhere, is connected to the Ocean. It is our hope that you will find the activities described in this document to be valuable tools in your role as an educator, whatever subject you teach or age of your students, and look forward to working with you soon.

Sincerely,

The National Marine Aquarium Schools Team

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

‘Ocean Literacy’ for all

The Ocean is the largest living space on the planet and sustains countless plants and animals in a wide variety of habitats. Scientists all over the world are increasingly beginning to understand the role that the Ocean plays in keeping our planet, and its inhabitants alive and healthy. In fact, it is considered so important to the health of the planet that the United Nations have declared 2021 – 2030 as the ‘Decade of Ocean Science for Sustainable Development’.

Did you know:

- The Earth has one big Ocean with many features?
- The Ocean and life in the Ocean shape the features of Earth?
- The Ocean is a major influence on weather and climate?
- The Ocean makes the Earth habitable?
- The Ocean supports a great diversity of life and ecosystems?
- The Ocean and humans are inextricably interconnected?
- The Ocean is largely unexplored?

The seven statements above are known as the ‘**Ocean Literacy Principles**’. These seven principles, along with the more detailed breakdowns of each are considered the foundation of an...

“Understanding of the Ocean’s influence on us, and our influence on the Ocean”

For information on which Principles are linked to each of our workshops, see activity planning tables

Ocean in the classroom?

The fascinating world under the waves has always held huge appeal to children and young learners, inspiring dreams and laying the foundations of life-long connections to the natural world for millions of people across the globe.

As concern around climate change and interest in the natural world in general continue to proliferate throughout society, the need for a deeper awareness and understanding of our relationship with the natural world becomes clear.

An academic grounding in the fundamental principles of the natural world is required to equip our children and young people with a necessary understanding of the natural systems and processes of which we are a part. To this end, the Ocean serves as a powerful way of illustrating topics and providing a context for, the National Curriculum in the classroom.

Equally important is the ability to manage and balance conversation around the challenge of climate change. Eco-anxiety amongst young people is a phenomenon unseen among previous generations. It must be addressed through appropriate levels of fact based, yet emotionally sensitive, support from schools and environmental professionals working together to deliver empowering, inspiring messaging for our young learners. Association with the Ocean has consistently been linked to increases in positive mood and reduction of negative mood and stress amongst young people.

With such a wide ranging and powerful impact on young people’s wellbeing, understanding of the world & formation of aspirations, it is clear that Ocean belongs in the classroom.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

PART TWO: Aquarium Visits for Schools

The Aquarium is home to the OCT Learning Programme, and as part of their visits, many students will experience the 'Learning Centre' – a dedicated space within the Aquarium reserved for use exclusively by visiting schools.

Subsidised entry

Our charitable mission enables us to offer subsidised entry to students of a formal curriculum

Arrival & departure planning

Our doors open at 10am, and close at 5pm. School visitors are welcome to arrive and depart any time within this daily window, however most schools plan to arrive around 10:15, and depart 4 hours later, at 14:15.

Seasonal visits

The Aquarium is open to school visitors all year, including school holidays (however some interactive elements are only available on weekdays during term time). As a rule of thumb, the summer term (May – July) is our peak period.

Drop off and Coach parking

Coaches are able to bring students to the rear of the building for drop off within walking distance of the main entrance. Coach parking is not available on the NMA site. Details of nearby coach waiting sites are available from Plymouth City Council.

Staff ratios

We offer free staff spaces to support school visits at the following ratios:

- EYFS students 1:3
- Primary school students 1:7
- Secondary school students 1:10
- Staff providing full time 1:1 support in the classroom are also able accompany their students at no charge
- Home educators 1:3

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

The Learning Centre:

Our Schools Programme operates from a dedicated Learning Centre within the Aquarium, capable of accommodating up to 200 students at any one time. The Learning Centre is split into several sub-spaces each with a specific function and set of resources. All spaces are available for private hire. Contact the Schools Team for costs and details.



Aqualab:

The Aqualab is a fully seated science classroom that can accommodate groups of up to 33 students at a time.

Includes Audio Visual suite and video projection.

It is home to our science experiments and lab-based investigations.



Aqua Theatre:

The Aqua Theatre boasts three levels of tiered seating for audiences of up to 75 students at a time.

Includes Audio Visual suite.

It is home to our STEM shows, formal presentations and live broadcasts.

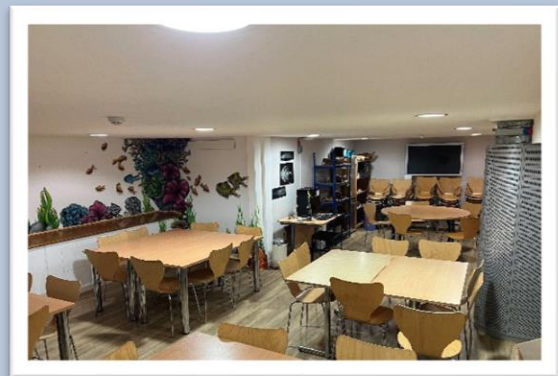
Reef Room:

The Reef Room is a self-contained classroom with table seating for up to 35 people at a time.

Includes a single wall mounted screen.

This versatile space is used for cross-curricular workshops, bag storage and as a lunch space.

Home of Meet the Mermaid workshops and live broadcasts.



To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

**Deck 5:**

The largest, open plan space in the Learning Centre, colour coded table-based seating can accommodate up to 120 at one time.

Features open views over Plymouth Sound.

Suitable for functions and events as well as large scale lunches and STEM workshops.

The Maritime Garden: Our Maritime Garden is one of the National Marine Aquarium's hidden gems. An outdoor picnic area with tabled seating for 100 students and a small grassy area to relax in over lunch, or simply to take a moment to sit quietly and reflect on the lessons and wonders of the day.



To book, or for more information:

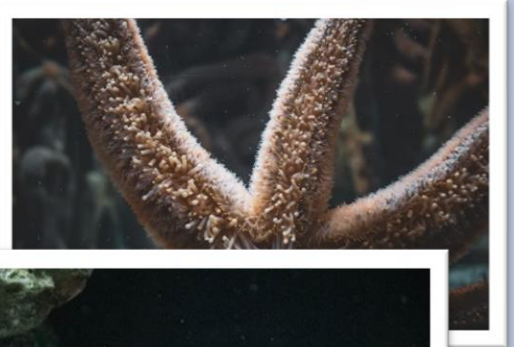
Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

The Exhibits

Our Aquarium is split into different zones. Each exhibit zone has been themed to reflect a different part of the Ocean, and the animals that are found within it. Read on to find out more.

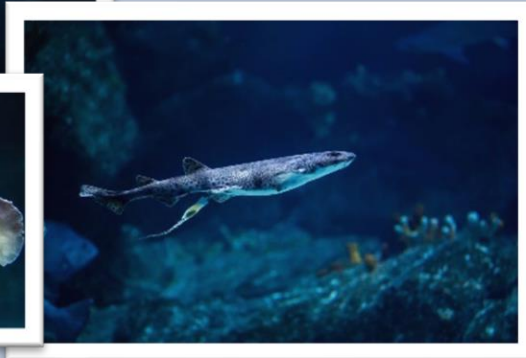
Plymouth Sound Rockpools

Plymouth Sound is the natural harbour found just outside the NMA's doors. Our exhibit showcases some of its stunning and colourful animals from the rockpools around the coast, what lies beneath the shallow waves and even our very own shark nursery with eggs from our in house breeding programmes.



British Coasts

Heading out beyond the sheltered waters of Plymouth sound, the journey continues on to the Eddystone Rocks, - the foundation of the Eddystone Lighthouse visible on the horizon from the Aquarium entrance. Not only does this exhibit feature the largest single viewing panel in the UK, but it's also home to a stunning array of local sharks, rays and many more amazing Ocean animals!



To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Ocean Drifters

Some of the most mesmerising animals that live in the Ocean have got to be jellyfish! Take a look at our Ocean Drifters exhibit to learn about the lives of these strange but beautiful creatures.



Atlantic Ocean

Our massive Atlantic Ocean exhibit is the deepest tank in the UK, holding a whopping 2.5 million litres of water! The animals that call the Atlantic Ocean home range in size, from tiny Angelfish all the way up to huge Sand Tiger Sharks.

The walk around the tank means you can view all of the amazing animals from three different locations. Starting in the Moon Pool tunnel and ending up in the crowd pleasing 'Demi Tunnel', you will have stunning views of the entire tank.

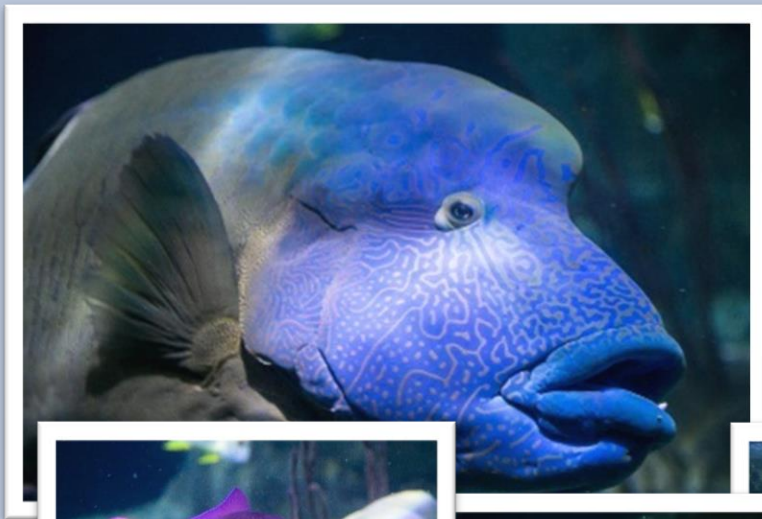
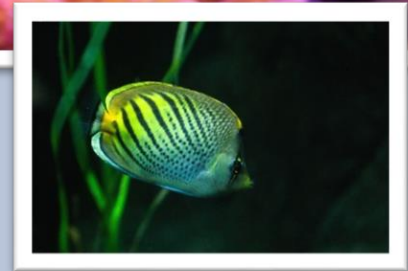


To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

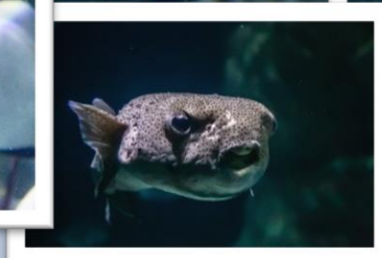
Biozone

Next on your tour of the world's Ocean, you'll meet some famous fish faces in our Biozone area. Home to colourful fish from warmer waters, this area showcases some of the truly unique and fascinating animals that call the Ocean home.



Great Barrier Reef (GBR)

Our Australian inspired, 650,000 litre reef exhibit showcases some of the most colourful fish found in the Ocean. It is the final stop on our tour and makes a great place to reflect on the learning that has taken place on your journey across the Ocean.



To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Entry Options

We offer two levels of School entry; Self-Guided and Interactive visits. Visiting student cohorts will be given access to facilities, spaces and exhibit areas according to the booking type detailed below.

Self-Guided 'Explorer' Visits

An Explorer visit to the National Marine Aquarium allows your students to discover the wonders of the Ocean for themselves, focusing on their favourite animals and exhibits.

Included in your experience:

- Entry from 10:00am
- Full access to all aquarium exhibit areas
- Picnic lunch space in the Maritime Garden
- Optional bag storage facilities

Interactive Visits

Our Interactive package is our most popular visit package for students of all ages. Your students will spend the day with a member of our Schools Team, who will guide them round the exhibits, highlighting links to key stage specific curriculum topics and particular points of interest for those continuing their studies beyond the statutory National Curriculum. Our Schools Officer will also lead your students through an OCT Schools Workshop of your choice, each with a particular focus and format that can be fine-tuned to the needs of your group.



Included in your experience:

- Entry from 10:00am
- Full access to all aquarium exhibit areas
- Dedicated lunch space and bag storage facilities within the Learning Centre
- A choice of 90-minute [School Workshop](#)
- A choice of 90-minute [Aquarium Tour](#)
- You own OCT Schools Officer guide for the day, on hand to help with all aspects of your visit

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

NMA Visits Activity selection

Our Interactive Visits have been developed to give students a ‘deep dive’ on a wide range of topics linked to the Ocean. Reviewed and updated annually, our activity selection reflects many of the most current themes in the field of Ocean Conservation including Ocean Literacy, marine citizenship, and development of Pro-Ocean Behaviour. Each activity has also been closely linked to the National Curriculum in England.

Activity planning tables

Our Interactive activities cover a variety of key stages, curriculum areas and subject topics. This guide contains three tables to help you find the perfect option for your group.

Activities	EYFS	Key Stage One		Key Stage Two				Key Stage Three			Key Stage Four
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10+
School / Classroom workshops	Climate Conundrum										
	Creature Creations										
	Habitat Hats										
	Inventafish										
	Meet the Mermaid										
	Ocean Orator										
	Ocean Scientist										
	Plastic Seas										
	Shark Hoist										
	Under the Knife										
Underwater Evolution											
Outdoor Learning (April – October only)	Beach Art (& clean)										
	Marine Park Adventure										
	Plastic Seas on the Beach										
	Rockpool Safari										
	Rockpool Survey										
Building Tours	Business Leisure & Tourism										
	Interactive Tour										
	Observational Drawing										
	Toddler Tour										
	Back of House Tour										
	Careers Tour										
	Fisheries / Sustainability Tour										

Activity Key Stage matrix: Displays the activities according to their target key stage.

Activities	Curriculum Subjects					Topics			
	Science	Art	Humanities	Literacy	Careers	Plymouth Sound Marine Park	Climate change	Biois pollution	
School / Classroom workshops	Climate Conundrum	X		X				X	
	Creature Creations		X						
	Habitat Hats	X	X				X		
	Inventafish	X	X						
	Meet the Mermaid		X		X				
	Ocean Orator	X			X			X	X
	Ocean Scientist	X				X			
	Plastic Seas	X							X
	Shark Hoist					X			
	Under the Knife	X				X			
Underwater Evolution	X						X		
Outdoor Learning (April – October only)	Beach Art (& clean)		X	X					X
	Marine Park Adventure	X		X			X		
	Plastic Seas on the Beach	X							X
	Rockpool Safari	X		X			X*		
	Rockpool Survey	X		X			X*		
Building Tours	Business Leisure & Tourism	X					X		
	Interactive Tour	X					X	X	X
	Observational Drawing	X	X				X		
	Toddler Tour	X					X		
	Back of House Tour	X					X		
	Careers Tour	X				X	X		
	Fisheries / Sustainability Tour	X					X	X	X

Activity Topic matrix: Displays the activities according to their key topics and themes.

Activities	The Earth has one big Ocean with many features.	The Ocean and life in the Ocean shape the features of Earth.	The Ocean is a major influence on weather and climate.	The Ocean makes the Earth habitable.	The Ocean supports a great diversity of life and ecosystems	The Ocean and humans are inextricably interconnected	The Ocean is largely unexplored.
	School / Classroom workshops	Climate Conundrum	X		X	X	X
Creature Creations					X	X	
Habitat Hats		X			X		
Inventafish					X		X
Meet the Mermaid							
Ocean Orator		X		X			
Ocean Scientist		X			X		
Plastic Seas		X			X		
Shark Hoist					X		
Under the Knife					X		
Underwater Evolution	X	X		X	X		
Outdoor Learning (April – October only)	Beach Art (& clean)	X		X		X	
	Marine Park Adventure	X					
	Plastic Seas on the Beach	X			X		
	Rockpool Safari	X			X	X	
	Rockpool Survey	X			X	X	
Building Tours	Business Leisure & Tourism	X			X	X	X
	Interactive Tour	X			X	X	
	Observational Drawing	X			X		
	Toddler Tour	X			X		
	Back of House Tour				X	X	
	Careers Tour					X	
	Fisheries / Sustainability Tour	X				X	X

Activity Ocean Literacy matrix: Displays the activities according to the Ocean Literacy themes each contain.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Activity Topic matrix

This table displays the activities according to their key topics and themes. Click on the name of any activity to be taken directly its Programme of Study for further information about what is involved.

		Curriculum Subjects				Topics			
		Science	Art	Humanities	Literacy	Careers	Plymouth Sound Marine Park	Climate change	Plastic pollution
School / Classroom workshops	Climate Conundrum	X		X				X	
	Creature Creations		X						
	Habitat Hats	X	X				X		
	Inventafish	X	X						
	Meet the Mermaid		X		X				
	Ocean Orator	X			X			X	X
	Ocean Scientist	X				X			
	Plastic Seas	X							X
	Shark Hoist					X			
	Under the Knife	X				X			
Underwater Evolution	X						X		
Outdoor Learning (April – October only)	Beach Art (& clean)		X	X					X
	Plymouth Sound Navigator	X		X			X		
	Plastic Seas on the Beach	X							X
	Rockpool Safari	X		X			X*		
	Rockpool Survey	X		X			X*		
Building Tours	Business Leisure Tourism	X					X		
	Interactive Tour	X					X	X	X
	Observational Drawing	X	X				X		
	Toddler Tour	X					X		
	Back of House Tour	X					X		
	Careers Tour	X				X	X		
	Fisheries / Sustainability	X					X	X	X

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Activity Ocean Literacy matrix

This table displays the activities according to the Ocean Literacy themes each contain. Click on the name of any activity to be taken directly its Programme of Study for further information about what is involved.

		The Earth has one big Ocean with many features.	The Ocean and life in the Ocean shape the features of Earth.	The Ocean is a major influence on weather and climate.	The Ocean makes the Earth habitable.	The Ocean supports a great diversity of life and ecosystems	The Ocean and humans are inextricably inter-connected	The Ocean is largely unexplored
School / Classroom workshops	Climate Conundrum	X		X	X	X	X	
	Creature Creations					X		
	Habitat Hats	X				X		
	Inventafish					X		X
	Meet the Mermaid							
	Ocean Orator	X		X				
	Ocean Scientist	X				X		
	Plastic Seas	X				X		
	Shark Hoist							
	Under the Knife					X		
	Underwater Evolution	X	X		X	X		
Outdoor Learning (April – October only)	Beach Art (& clean)	X					X	
	Plymouth Sound	X						
	Plastic Seas on the Beach	X				X		
	Rockpool Safari	X				X	X	
	Rockpool Survey	X				X	X	
Building Tours	Business Leisure Tourism							
	Interactive Tour	X			X	X	X	X
	Observational Drawing					X		
	Toddler Tour	X				X		
	Back of House Tour					X	X	
	Careers Tour						X	
Fisheries / Sustainability	X				X	X		

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

PART THREE: Outreach Activities for Schools

Our Schools Outreach Programme has been developed to deliver the same high quality, industry leading standards of curriculum linked education as our Aquarium Visits programme, without the complications of leaving the classroom. Outreach experiences are available to student groups of any age, at venues other than the National Marine Aquarium.

Activity Options

When it comes to outsourcing your education, we understand that finding the right fit is important, and that's why we've put together a tried and tested outreach menu that we're confident can cater for any occasion. Our outreach programme is comprised of a selection of activities that can be purchased individually or as a package of successive activities to cover a full day. For example:

Activity	Workshop 1	Workshop 2	-Lunch-	Workshop 3
Timing	09:00 – 10:30	11:00 – 12:30	12:30 – 13:15	13:15 – 14:45
Activity	Workshop 1	-Lunch-	Workshop 2	Show
Timing	10:00 – 11:30	11:30 – 12:30	12:30 – 14:00	14:30 – 15:00

We offer 4 types of outreach engagement:

Classroom workshops (32 students / £150) – a selection of our award winning, 90-minute, curriculum-linked workshops which we're able to deliver at indoor venues, including classrooms. Typically, workshops include one or more of the following elements:

- Artefact handling
- Science experiments
- Arts & craft design activities

Outdoor learning workshops

(32 students / £150) – Similar to the Classroom workshops in duration and themes, these Learning Outside the Classroom certified, 90-minute activities have been developed specifically to enhance school trips to the coast.

STEM shows & assemblies

(no audience size limit / £100) – Our STEM shows have been developed as real crowd pleasers, ideally suited to events with large audiences, or as an exciting conclusion to a day of Classroom workshops these themed stage shows come highly recommended. Typically, our STEM shows include the following elements:

- Mass audience participation
- Specific volunteer opportunities
- STEM demonstrations

Stand operation / mobile busking & event stewarding

(Price on enquiry) - From careers fairs to STEM showcases, our team are experts at standing out from the crowd and inspiring students with tales from the Aquarium and 1:1 engagement that give a glimpse into the exciting world of Marine Science. Ask for further details

Outreach Activities selection

Our Outreach Experiences have been developed to give students a ‘deep dive’ on a wide range of topics linked to the Ocean. Reviewed and updated annually, our activity selection reflects many of the most current themes in the field of Ocean Conservation including Ocean Literacy, marine citizenship, and development of Pro-Ocean Behaviour. Each activity has also been closely linked to the National Curriculum in England.

Activity planning tables

Our Outreach activities cover a variety of key stages, curriculum areas and subject topics. This guide contains three tables to help you find the perfect option for your group.

Activities	EYFS	Key Stage One		Key Stage Two				Key Stage Three			Key Stage Four
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10*
School / Classroom workshops	Climate Conundrum										
	Habitat Hats										
	Inventafish										
	Ocean Scientist										
	Plastic Seas										
	Under the Knife										
STEM Shows	Underwater Evolution										
	An Animal Like Me										
	Climate Heroes										
Outdoor Learning (April – October only)	The Mating Game										
	Beach Art (& clean)										
	Plastic Seas on the Beach										
Bespoke activities	Rockpool Safari										
	Rockpool Survey										
Bespoke activities	Careers Talk										
	Activity Stand										

Activity Key Stage matrix: Displays the activities according to their target key stage.

Activities	Curriculum Subjects				Topics				
	Science	Art	Humanities	Literacy	Careers	Plymouth Sound Marine Park	Climate change	Plastic pollution	
School / Classroom workshops	Climate Conundrum	X		X			X		
	Habitat Hats	X	X			X			
	Inventafish	X	X						
	Ocean Scientist	X				X			
	Plastic Seas	X						X	
	Under the Knife	X				X			
STEM Shows	Underwater Evolution	X					X		
	An Animal Like Me	X					X		
	Climate Heroes	X					X		
Outdoor Learning (April – October only)	The Mating Game	X					X		
	Beach Art (& clean)		X	X				X*	
	Plastic Seas on the Beach	X						X*	
Bespoke activities	Rockpool Safari	X		X		X*			
	Rockpool Survey	X		X		X*			
Bespoke activities	Careers Talk	X				X			
	Activity Stand	X				X			

Activity Topic matrix: Displays the activities according to their key topics and themes.

Activities	The Earth has one big Ocean with many features.	The Ocean and life in the Ocean shape the features of Earth.	The Ocean is a major influence on weather and climate.	The Ocean makes the Earth habitable.	The Ocean supports a great diversity of life and ecosystems	The Ocean and humans are inextricably interconnected	The Ocean is largely unexplored.
School / Classroom workshops	Climate Conundrum	X		X	X	X	
	Habitat Hats	X			X	X	
	Inventafish				X		X
	Ocean Scientist	X			X		
	Plastic Seas	X			X		
	Under the Knife				X		
STEM Shows	Underwater Evolution	X	X		X		
	An Animal Like Me				X	X	X
	Climate Heroes	X	X	X	X	X	
Outdoor Learning (April – October only)	The Mating Game				X		
	Beach Art (& clean)	X				X	
	Plastic Seas on the Beach	X			X		
Bespoke activities	Rockpool Safari	X			X	X	
	Rockpool Survey	X			X	X	
Bespoke activities	Careers Talk				X	X	X
	Activity Stand						

Activity Ocean Literacy matrix: Displays the activities according to the Ocean Literacy themes each contain.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Activity Topic matrix

This table displays the activities according to their key topics and themes. Click on the name of any activity to be taken directly its Programme of Study for further information about what is involved.

Activities		Curriculum Subjects				Topics			
		Science	Art	Humanities	Literacy	Careers	Plymouth Sound Marine Park	Climate change	Plastic pollution
School / Classroom workshops	Climate Conundrum	X		X				X	
	Habitat Hats	X	X				X		
	Inventafish	X	X						
	Ocean Scientist	X				X			
	Plastic Seas	X							X
	Under the Knife	X				X			
	Underwater Evolution	X						X	
STEM Shows	An Animal Like Me	X							
	Climate Heroes	X						X	
	The Mating Game	X						X	
Outdoor Learning (April – October only)	Beach Art (& clean)		X	X					X*
	Plastic Seas on the Beach	X							X*
	Rockpool Safari	X		X			X*		
	Rockpool Survey	X		X			X*		
Bespoke activities	Careers Talk	X				X			
	Activity Stand	X				X			

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Activity Ocean Literacy matrix

This table displays the activities according to the Ocean Literacy themes each contain. Click on the name of any activity to be taken directly its Programme of Study for further information about what is involved.

Activities		The Earth has one big Ocean with many features.	The Ocean and life in the Ocean shape the features of Earth.	The Ocean is a major influence on weather and climate.	The Ocean makes the Earth habitable.	The Ocean supports a great diversity of life and ecosystems	The Ocean and humans are inextricably interconnected	The Ocean is largely unexplored.
School / Classroom workshops	Climate Conundrum	X		X	X	X	X	
	Habitat Hats	X				X		
	Inventafish					X		X
	Ocean Scientist	X				X		
	Plastic Seas	X				X		
	Under the Knife					X		
	Underwater Evolution	X	X		X	X		
STEM Shows	An Animal Like Me					X	X	X
	Climate Heroes	X	X	X	X		X	
	The Mating Game					X		
Outdoor Learning (April – October only)	Beach Art (& clean)	X					X	
	Plastic Seas on the Beach	X				X		
	Rockpool Safari	X				X	X	
	Rockpool Survey	X				X	X	
Bespoke activities	Careers Talk					X	X	X
	Activity Stand							

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

PART FOUR: Virtual Experiences for Schools

Our Virtual Learning programme has been developed to deliver the same high quality, industry leading standards of curriculum linked education as our Aquarium Visits programme, without the complications of leaving the classroom. Our Virtual Learning experiences are available to student groups of any age, connecting them to the National Marine Aquarium as part of a formal curriculum, including:

- Pre-schools
- Schools
- Colleges
- Universities
- Home Educator groups

Optional platform use

Our Virtual Programme can be delivered across a range of different digital platforms. We prioritise Zoom and Microsoft Teams, but if you require a different platform for technical or policy reasons we'll be happy to look into alternative delivery for you.

Safeguarding & Risk Assessment

As with our Aquarium Visits and Outreach for Schools offerings, our Virtual Programme has been fully risk assessed and incorporated into our safeguarding policy. These documents are available upon request should they be of use to you in your lesson planning.

Test calls

All our Virtual Experiences include the opportunity for a free test call before going live with the students, so no awkward 'technical issues' on the day.

Flexible timings

We are able to offer the Virtual Experiences at any time in the day between 9am and 5pm as standard. If you would like something outside these hours, get in touch using our departmental email (learning@oceanconservationtrust.org) and we'll do our best to accommodate you.

Shareable links & home connections

We provide you with a single, shareable link for the session. By agreement with our booking team, we can facilitate students connecting from home so last minute absence doesn't have to mean missing out.

Private connections

Your Virtual Experience booking is just for you - no other schools will be able to join the session, so the content can be tailored to suit your exact needs.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Activity Options

We currently offer two types of Virtual Learning experience:

Virtual Tours

Let us take your pupils on an immersive under-water adventure as they journey across the world's Oceans from the comfort of their own classrooms. Each tour is led by a member of our Schools Team who will virtually guide your students around the exhibits, highlighting links to key stage specific curriculum topics and particular points of interest for those continuing their studies beyond the statutory National Curriculum.

Included in the experience:

- **Exclusive downloadable content:** 4 post-tour activities, aimed at different key stages plus 'Sea Spotters' sheet for younger audiences to use throughout the tour.

Virtual Workshops

Our fully interactive workshops bring all the excitement and learning of the National Marine Aquarium directly into the classroom. One of our Schools Officers (or mermaids!) will lead your students through a Virtual Workshop of your choice, each with a particular topic focus and format for a specific age range of student. These can be further fine-tuned to the needs of your group as part of the booking process.

Included in the experience:

- **Exclusive downloadable content:**
 - Virtual Mermaid: A letter from the mermaid who your children will be meeting, which you can read to your pupils in advance of your session PLUS a make-your-own mermaid craft activity template.
 - Virtual Dissection: Access to a flatscreen version of our 'Whale vs Squid' animated short, following a sperm whale as it hunts for giant squid in the midnight zone.
 - Virtual Evolution: An NMA Underwater Evolution teacher handbook featuring random number generator tables and other useful, printable resources

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Experiences selection

Our Virtual Experiences have been developed to give students a ‘deep dive’ on a wide range of topics linked to the Ocean. Reviewed and updated annually, our activity selection reflects many of the most current themes in the field of Ocean Conservation including Ocean Literacy, marine citizenship, and development of Pro-Ocean Behaviour. Each activity has also been closely linked to the National Curriculum in England.

Our Virtual activities cover a variety of key stages, curriculum areas and subject topics. This guide contains three tables to help you find the perfect option for your group.

- **Topic matrix:** displays the activities according to their key topics and themes
- **Ocean Literacy matrix:** displays the activities according to the Ocean Literacy themes each contain
- **Key Stage matrix:** displays the activities according to their target key stage

Topic matrix

This table displays the activities according to their key topics and themes. Click on the name of any activity to be taken directly its Programme of Study for further information about what is involved.

Activities		Curriculum Subjects				Topics			
		Science	Art	Humanities	Literacy	Careers	Plymouth Sound Marine Park	Climate change	Plastic pollution
Virtual Tours	Enchanted Seas	X					X		
	Beneath the Waves	X					X	X	
	Changing Seas	X					X	X	X
Virtual Workshops	Virtual Mermaid	X			X				
	Virtual Dissection	X							
	Virtual Evolution	X	X					X	

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Ocean Literacy matrix

This table displays the activities according to the Ocean Literacy themes each contain. Click on the name of any activity to be taken directly its Programme of Study

Activities		The Earth has one big Ocean with many features.	The Ocean and life in the Ocean shape the features of Earth.	The Ocean is a major influence on weather and climate.	The Ocean makes the Earth habitable.	The Ocean supports a great diversity of life and ecosystems.	The Ocean and humans are inextricably inter-connected	The Ocean is largely unexplored
Virtual Tours	Enchanted Seas	X			X	X	X	X
	Beneath the Waves	X			X	X	X	X
	Changing Seas	X			X	X	X	X
Virtual Workshops	Virtual Mermaid	X				X	X	
	Virtual Dissection					X		
	Virtual Evolution	X	X		X	X		

Key Stage matrix

This table displays the activities according to their target key stage. Click on the name of any activity to be taken directly its Programme of Study for further information about what is involved.

Activities		EYFS	Key Stage One		Key Stage Two				Key Stage Three			Key Stage Four
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10+
Virtual Tours	Enchanted Seas											
	Beneath the Waves											
	Changing Seas											
Virtual Workshops	Virtual Mermaid											
	Virtual Dissection											
	Virtual Evolution											

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

PART FIVE: Programmes of Study

Workshops


Each workshop has its own Programme of Study (POS) these provide a more detailed overview of the contents, curriculum links, and learning outcomes for each of the workshops available as part of the OCT Learning programme.

Each POS contains the following information:

- **Workshop Title** – Name of the workshop
- **Duration** – Expected run time
- **Key Stage** - Intended audience age (based on curriculum links, but not a requirement)
- **Availability** – Notes on seasonal availability where applicable
- **Pricing tier** – pricing per student
- **Workshop Overview** – Description of how the workshop flows
- **Learning Objectives** – Describes what students will do during the workshop
- **Learning Outcomes** –What students will be able to do after the workshop
- **Pre & Post visit suggestions** – Supporting activities ideas
- **EYFS & National Curriculum links** – Key points of the NC covered by this workshop

22

Fantastic Fossils
Duration: 90 minutes
Key Stage: EYFS - KS1 (Year 1)
Availability: All year
Pricing tier: Standard Workshop



Session Overview

Fantastic Fossils presents opportunities for your pupils to explore interactive sensory activities and make exciting discoveries. The activities encourage group co-operation, and verbalization of their ideas. Pupils handle real life fossils from the ocean and imagine the animals they came from. In small groups, pupils use tools to unearth fossils, piece them back together, and identify other items they might unearth in the sand. We take a closer look at how extinct animals might have looked, and finally get creative with textures to make their own fossils from modelling clay and colour-in images to create 3D models of extinct animals using augmented reality software on [hand held tablets](#).

Learning Objectives

1. Learn about fossils and where they come from
2. Discover and reconstruct a creature from the ancient seas
3. Find out what we can learn about animals from fossils

Learning Outcomes

1. Describe the range of shapes, sizes and textures that fossils come in
2. Explain how fossils are formed
3. Use your knowledge of extant organisms to formulate an idea of what an extinct organism may have looked like

Pre-Visit Suggestions

- Research prehistoric marine animals (there are lots of images of prehistoric fish online)
- Go for a nature walk in your school, observing and noting down any live animals, things that were alive (e.g. leaves, pinecones etc.), and things that have never been alive

Post-Visit Suggestions

- Collect & explore different rock types, observe & comment on differences between them
- Look up other examples of prehistoric marine animals and create your own interpretations
- Make and paint your own fossils at school using a Plaster of Paris kit

To book, or for more information:
Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

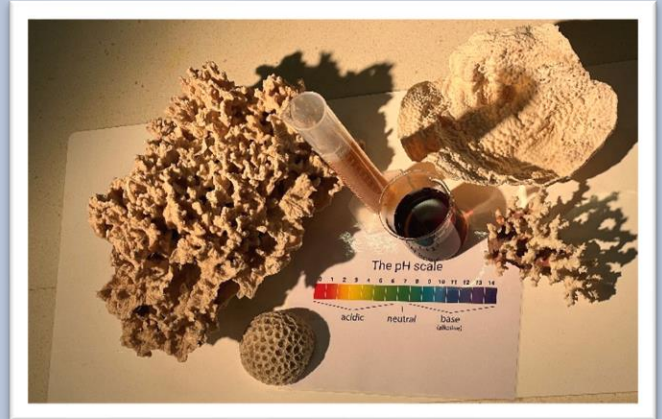
Climate Conundrum

Duration: 90 minutes

Key Stage: KS2 & KS3

Availability: All year

Pricing tier: Workshop



Session Overview

Climate Conundrum will begin with pupils exploring one of the Oceans most important organisms, coral. The group will learn all about their properties, reproduction, and growth. After examining a range of coral colony skeletons, key features will be identified, and the students will work in groups using a classification key. These identification skills will then be put to the test on a Virtual Reality survey dive! Next, conditions where corals grow will be discussed, locating which parts of the world's oceans are suitable temperature and salinity for coral to live. The pupils will then undertake some practical experiments to understand how carbon dioxide enters the ocean and the impact of carbon dioxide on Ocean pH. These experiments will help the students understand the effects of climate change on the organisms that live within the Ocean. The workshop will conclude with an emotionally sensitive discussion regarding climate change anxiety and the steps in which we as individuals and as a community can take in an effort to combat climate change.

Learning Objectives

1. Explore corals skeletons and group them using a classification key
2. Carry out some experiments to understand how we impact coral reefs
3. Discuss ways in which we can reduce our carbon footprint

Learning Outcomes

1. Classify coral skeletons by using a dichotomous key
2. Understand how we impact climate change through our actions at home
3. Understand the effects of carbon dioxide on coral reefs

Pre-Visit Suggestions

- Choose and research climate change and build a fact file about it
- Watch the BBC series Blue Planet, episode 6 (Coral Seas)

Post-Visit Suggestions

- Write a newspaper report about a coral reef: what is it and is it important?
- Make & decorate your own coral reef display at school using clay, or other craft materials
- Have a look in newspapers to see if there is any up-to-date news on climate change and how it is affecting the environment
- Think about the impact that humans have on other habitats around the world, both on the land or in the ocean. Is there anything you can do to help?

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. Science: Key Stage 2: Working Scientifically

- a) Asking relevant questions & using different types of scientific enquiries to answer them
- b) Setting up simple practical enquiries, comparative and fair tests
- c) Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- d) Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- e) Using straightforward scientific evidence to answer questions or to support their findings

2. Science: Key Stage 2: Animals, including humans

- a) Identify that humans and some other animals have skeletons and muscles for support, protection and movement [Y3]

3. Science: Key Stage 2: Living things and their habitats

- a) Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment [Y4]
- b) Recognise that environments can change and that this can sometimes pose dangers to living things [Y4]
- c) Describe the life process of reproduction in some plants and animals [Y5]
- d) Describe how living things are classified into broad groups according to common observable characteristics & based on similarities and differences, including micro-organisms, plants & animals [Y6]
- e) Give reasons for classifying plants and animals based on specific characteristics [Y6]

4. Geography: Key Stage 2: Human and physical geography

- a) Physical geography, including climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle

5. Science: Key Stage 3: Working Scientifically

- a) Ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience

6. Science: Key Stage 3: Interactions and interdependencies

- a) The interdependence of organisms in an ecosystem, including food webs and insect pollinated crops
- b) How organisms affect, and are affected by, their environment, including the accumulation of toxic materials.

7. Science: Key Stage 3: Genetics and evolution

- a) Changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction

8. English: Years 1-6 Spoken language

- a) Listen and respond appropriately to adults and their peers
- b) Ask relevant questions to extend their understanding and knowledge
- c) Articulate and justify answers, arguments and opinions
- d) Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- e) Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Creature Creations

Duration: 60-90 minutes

Key Stage: EYFS & KS1

Availability: All year

Pricing tier: Workshop



Session Overview

In this delightful workshop your students will draw inspiration from their journey around the Aquarium exhibits to explore the differences and similarities between animals from a range of Ocean habitats before making their own sea-creature craft to take away with them.

They will put their creatures together using paper plates and a variety of decorative materials, whilst being encouraged to think about colours, patterns, body form and function.

Learning Objectives (in this session your students will...)

1. Learn about the differences between fish and whales
2. Make a paper-plate sea-creature and decorate it with recycled materials
3. Show and tell each other about their animal designs

Learning Outcomes (following this session your students will be able to...)

1. Identify a variety of sea creatures
2. Describe the features of a fish and a mammal
3. Compare the basic needs of fish and mammals

Pre-Visit Suggestions

- Explore the body forms and function of different land animals, ready to compare them to Ocean creatures when they visit the Aquarium
- Classify different land animals based on their features, deciding whether they are bird, reptile, mammal, or amphibian
- Read a variety of Ocean-themed story books. Discuss what it would be like to be an animal living under the sea

Post-Visit Suggestions

- Compare and contrast the body form and function of animals who live on land, to the animals seen at the Aquarium
- Make some more paper-plate Ocean creatures back at school and start to classify them into different groups
- Create a class story set under the sea, using the paper-plate creatures as the main characters. Draw some pictures to illustrate the story

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

EYFS Statutory Framework Links

1. Communication and Language: ELG: Listening, Attention and Understanding

- a) Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions
- b) Make comments about what they have heard and ask questions to clarify their understanding

2. Communication and Language: ELG: Speaking

- a) Participate in small group, class, and one-to-one discussions, offering their own ideas, using recently introduced vocabulary

3. Physical Development: ELG: Fine Motor Skills:

- a) Use a range of small tools, including scissors

4. Understanding the World: ELG: The Natural World

- a) Explore the natural world around them, making observations
- b) Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences

5. Expressive Arts and Design: ELG: Creating with Materials

- a) Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form, and function
- b) Share their creations, explaining the process they have used

National Curriculum Links

1. English Years 1-6: Spoken language

- a) Listen and respond appropriately to adults and their peers
- b) Ask relevant questions to extend their understanding and knowledge
- c) Give well-structured descriptions, explanations, and narratives for different purposes, including for expressing feelings
- d) Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments

2. Science: Key Stage 1: Animals, including humans

- a) Identify and name a variety of common animals including fish, amphibians, reptiles, birds, and mammals
- b) Describe and compare the structure of a variety of common animal (fish, amphibians, reptiles, birds, and mammals, including pets)
- c) Find out about and describe the basic needs of animals, including humans, for survival (water, food, and air)

3. Art and Design: Key Stage 1

- a) Produce creative work, exploring their ideas and recording their experiences
- b) To use a range of materials creatively to design and make products
- c) To develop a wide range of art and design techniques using colour, pattern, texture, line, shape, form, and space

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Habitat Hats

Duration: 60-90 minutes

Key Stage: KS1 & KS2

Availability: All year

Pricing tier: Workshop



Session Overview

Students will start by discussing the range of habitats they observed in the Aquarium and how they provide animals with what they need to survive. They will then design their chosen habitat on a head band using a range of different texture boards and crayons before creating their own animals to add onto the headband. Students will be encouraged to think about how these creatures are suited to their habitat, but also to consider predator-prey relationships when completing their drawings. Students will then have the option of adding any additional decorations from our range of recycled craft materials.

At the end of this activity, the students will have the opportunity to examine each other's work and offer positive critique. They will also have the chance to present and explain the reasoning behind their design in front of their peers.

Learning Objectives (in this session your students will...)

1. Identify a variety of sea creatures and name the habitats they live in
2. Explore how sea creatures are suited to their habitats
3. Make a habitat-themed craft, using a range of art materials

Learning Outcomes (following this session your students will be able to...)

1. Compare and contrast habitats which can be found under the sea
2. Describe how animals are suited to different marine environments
3. Explain how animals can be grouped according to diet using scientific terminology

Pre-Visit Suggestions

- Learn about different habitats on land, ready to compare to Ocean habitats when visiting the Aquarium
- Challenge the pupils to spot animals around the school playgrounds and their gardens at home, identifying their habitats

Post-Visit Suggestions

- Use a world map to identify where habitats seen at the Aquarium can be found
- Identify similarities & differences in how creatures are suited to life on land & in the Ocean
- Design Ocean food chains using inspiration from their Aquarium visit

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. English Years 1-6: Spoken language

- a) Listen and respond appropriately to adults and their peers
- b) Ask relevant questions to extend their understanding and knowledge
- c) Give well-structured descriptions, explanations, and narratives for different purposes, including for expressing feelings
- d) Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- e) Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas

2. Science: Key Stage 1 & 2: Animals, including humans

- a) Describe and compare the structure of a variety of common animal (fish, amphibians, reptiles, birds and mammals, including pets)
- b) Identify and name a variety of common animals that are carnivores, herbivores and omnivore
- c) Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
- d) Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat

3. Science: Key Stage 1 & 2: Living things and their habitats

- a) Identify that most living things live in habitats to which they are suited and describe
- b) How different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other
- c) Identify and name a variety of plants and animals in their habitats, including micro-habitats
- d) 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

4. Art and Design: Key Stage 1

- a) Produce creative work, exploring their ideas and recording their experiences
- b) To use a range of materials creatively to design and make products
- c) To develop a wide range of art and design techniques using colour, pattern, texture, line, shape, form, and space

5. Art and Design: Key Stage 2

- a) To create sketch books to record their observations and use them to review and revisit ideas
- b) To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

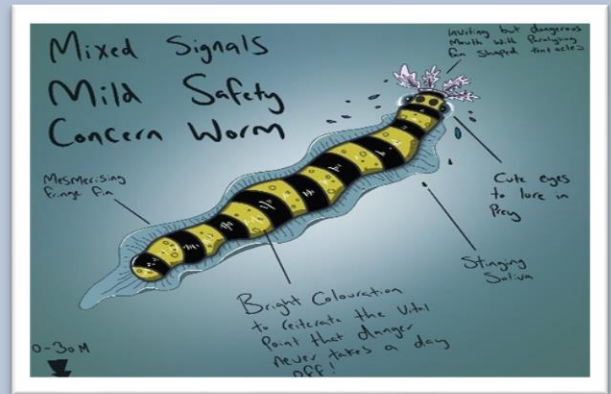
Inventafish

Duration: 90 minutes

Key Stage: KS2 & KS3

Availability: All year

Pricing tier: Workshop



Session Overview

Students will begin this workshop by using our Virtual Reality headsets to extend their exploration of the Ocean into the midnight zone. Here they will come face to face with animals that have strange, otherworldly adaptations unique to the permanent darkness of the Ocean depths.

Upon their return to the surface students will be encouraged to consider how the animals they encountered are suited to their environment, and helped to taxonomically classify them by our Schools Officer. Students will then use these discussions as inspiration to design their own perfectly adapted sea-creatures using an array of features from any animals they can imagine. Once complete students will have the opportunity to present and explain the reasoning behind their design, whilst testing which of their creations would be most suited to survive in changing environments.

Learning Objectives (in this session your students will...)

1. Identify a range of animal species and groups found in the Ocean
2. Explore the physical and behavioural adaptations each has to its natural habitat
3. Create a unique 'composite creature' using knowledge of adaptations and classification throughout the design process

Learning Outcomes (following this session your students will be able to...)

1. Classify any vertebrate according to its physical features
2. Describe how animals are well suited to their environment using scientific terminology
3. Explain how environmental changes may leave animals less well adapted to compete

Pre-Visit Suggestions

- Learn about a range of different habitats, both terrestrial and marine
- Classify a range of common vertebrates and invertebrates
- Research the adaptations of different animals, discovering how they help them to survive

Post-Visit Suggestions

- Create a dichotomous key to help classify the creatures into different groups
- Identify similarities and differences between the students' creatures that live in the same habitat, discussing adaptations which are both physical and behavioural
- Identify which of their creations are herbivores, carnivores, and omnivores, and use this knowledge to create their own food chains and webs

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. Art and Design: Key Stage 2

- a) Produce creative work, exploring their ideas and recording their experiences
- b) Create sketch books to record observations & use them to review and revisit ideas
- c) Improve mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]

2. Art and Design: Key Stage 3

- a) Use a range of techniques to record their observations in sketchbooks, journals, and other media as a basis for exploring their ideas
- b) Analyse and evaluate their own work, and that of others, in order to strengthen the visual impact or applications of their work

3. Science: Key Stage 2: Animals, Including Humans

- a) Identify that humans and some other animals have skeletons and muscles for support, protection and movement [Y3]

4. Science: Key Stage 2: Living Things & Their Habitats

- a) Recognise that living things can be grouped in a variety of ways [Y4]
- b) Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants, and animals [Y6]

5. Science: Key Stage 2: Evolution and inheritance

- a) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution [Y6]

6. Science: Key Stage 3: Interactions and Interdependencies

- a) How organisms affect, and are affected by, their environment, including the accumulation of toxic materials

7. Science: Key Stage 3: Genetics and Evolution

- a) The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection
- b) Changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete and reproduce, which in turn may lead to extinction

8. English Years 1-6: Spoken Language

- a) Ask relevant questions to extend their understanding and knowledge
- b) Give well-structured descriptions, explanations, and narratives for different purposes, including for expressing feelings
- c) Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas

9. English: Key Stage 3: Spoken English

- a) Using English confidently in a range of contexts, including classroom discussion
- b) Giving short speeches & presentations, expressing their ideas & keeping to the point
- c) participating in formal debates and structured discussions, summarising and/or building on what has been said

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Meet the Mermaid

Duration: 90 minutes

Key Stage: EYFS & KS1

Availability: All year

Pricing tier: Workshop



Session Overview

The 'Meet the Mermaid' workshop is a brilliant two-part addition to our aquarium tours, and a perfect way to further your pupils' learning about life under the sea.

Part one: This magical literacy workshop will involve your pupils having a real-life encounter with one of our resident mermaids! Your pupils will hear all about their fishy friends before being shown some real Ocean treasures, such as turtle shells and mermaid's purses. When it comes to story time, you can choose from a collection of tales each featuring a gentle and positive introduction to the Ocean and its inhabitants. All stories link to the EYFS Framework / KS1 National Curriculum in Science, and a short discussion led by Marina during the story will allow pupils to develop their comprehension, speaking, and listening skills.

Part two: Pupils will take part in a simple mermaid themed craft activity, during which they will create their very own mermaid design. This will not only allow your pupils to get creative but will give them the opportunity to do some writing as they bring their character to life.

Learning Objectives

1. Explore objects from the Ocean to learn about the animals who live there.
2. Listen to a story about the Ocean and answer questions about it.
3. Create a mermaid character and tell others about the design.

Learning Outcomes

1. Describe the texture, shape, weight, and size of Ocean specimens using adjectives.
2. Anticipate what will happen in a story that is read to them.
3. Design a character and describe them to their peers using a range of vocabulary.

Pre-Visit Suggestions

- Can the pupils come up with an Ocean animal for each letter of the alphabet? Task more able pupils with spelling the animal names and putting them into sentences
- Read books featuring Mermaids and discuss what it would be like to live under the sea

Post-Visit Suggestions

- Use the characters the children designed to create stories back at the classroom.
- Take a trip to the seaside for a treasure hunt! Can the pupils spot any items they handled at the Aquarium?

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

EYFS Statutory Framework Links

1. Communication and Language: ELG: Listening, Attention and Understanding

- a) Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to & during whole class discussions and small group interactions
- b) Make comments about what they have heard and ask questions to clarify their understanding

2. Communication and Language: ELG: Speaking

- a) Participate in small group, class, and one-to-one discussions, offering their own ideas, using recently introduced vocabulary
- b) Offer explanations for why things might happen

3. Literacy: ELG: Comprehension

- a) Anticipate – where appropriate – key events in stories
- b) Use and understand recently introduced vocabulary during discussions about stories

4. Understanding the World: ELG: The Natural World

- a) Explore the natural world around them, making observations
- b) Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences

National Curriculum Links

1. English Years 1-6: Spoken language

- a) Listen and respond appropriately to adults and their peers
- b) Ask relevant questions to extend their understanding and knowledge
- c) Give well-structured descriptions, explanations, and narratives for different purposes, including for expressing feelings
- d) Use spoken language to develop understanding through speculating, hypothesising, imagining, and exploring ideas

2. Key Stage 1 Science: Animals, including humans

- a) Identify and name a variety of common animals including fish, amphibians, reptiles, birds, and mammals
- b) Identify and name a variety of common animals that are carnivores, herbivores and omnivore
- c) Describe and compare the structure of a variety of common animal (fish, amphibians, reptiles, birds and mammals, including pets)
- d) Notice that animals, including humans, have offspring which grow into adults

3. Key Stage 1 Science: Living things and their habitats

- a) Explore and compare the differences between things that are living, dead, and things that have never been alive
- b) Identify that most living things live in habitats to which they are suited and describe
- c) How different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other
- d) Identify and name a variety of plants and animals in their habitats, including micro-habitat

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Ocean Orators

Duration: 90 minutes

Key Stage: Upper KS2, KS3 & KS4

Availability: All year

Pricing tier: Workshop



Session Overview

This workshop is a fun filled session of literacy skills, roleplaying, and public speaking. It begins with a Virtual Experience designed to help students to explore and understand some of the conservation activities carried out by the Ocean Conservation Trust as well as the vital role the Ocean plays in combatting climate change. Following this our Schools Officer will support your students through some public speaking and presenting exercises. Once the exercises are complete students will be given access to a wardrobe of props and costumes and encouraged to develop their own climate change linked presentations. Presentations, which can take the form of a short persuasive speech, news broadcast, music video, advert, or interview, will be filmed in our Aqua theatre at the end of the session and a private live-stream link will be made available to the school, allowing viewing and download of the recordings by the lead teacher.

Learning Objectives (in this session your students will...)

1. Discover the link between climate (change) and the Ocean.
2. Learn tips, tricks and techniques for public speaking from our exhibit show team
3. Record a private broadcast on YouTube, to share with friends and family

Learning Outcomes (following this session your students will be able to...)

1. Identify key aspects of effective science communication and public speaking.
2. Talk confidently about the relationship between the Ocean and the climate (nexus).
3. Describe at least one pro-Ocean behaviour that can have a positive effect on Ocean health.

Pre-Visit Suggestions

- Watch animations that explain the complex idea of climate change.
- Include some presentation activities into classwork to generate confidence.
- Inspire creative writing and persuasive writing techniques using literacy activities.

Post-Visit Suggestions

- Review the pupils' presentations via the Youtube live link.
- Use a lesson for pupils to evaluate their work as a group and list improvements, perhaps with the opportunity to present their work again to the class.
- Write letters to their local MP to encourage green initiatives in their local area.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. English: Upper Key Stage 2: Writing - Composition

- a) Identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
- b) Noting and developing initial ideas, drawing on reading and research where necessary
- c) In writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed
- d) Perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.

2. English: Key Stage 2: Reading

- a) Identifying how language, structure, and presentation contribute to meaning
- b) Reading materials that are structured in different ways and reading for a range of purposes
- c) Distinguish between statements of fact and opinion

3. English: Key Stage 3: Reading and Writing

- a) Understanding how the work of dramatists is communicated effectively through performance and how alternative staging allows for different interpretations
- b) Writing for a wide range of purposes and audiences, including stories, scripts, notes and polished scripts for talks and presentations
- c) Summarising and organising material, and supporting ideas and arguments with any necessary factual detail
- d) Considering how their writing reflects the audiences and purposes for which it was intended

4. English: Key Stage 3: Spoken English

- a) Improvising, rehearsing and performing play scripts and poetry in order to generate language and discuss language use and meaning, using role, intonation, tone, volume, mood, silence, stillness and action to add impact

5. English: Key Stage 4: Reading

- a) Reading in different ways for different purposes, summarising and synthesising ideas and information, and evaluating their usefulness for particular purposes
- b) Identifying and interpreting themes, ideas and information
- c) Seeking evidence in the text to support a point of view, including justifying inferences with evidence

6. English: Key Stage 4: Writing

- a) Adapting their writing for a wide range of purposes and audiences: to describe, narrate, explain, instruct, give and respond to information, and argue
- b) Selecting and organising ideas, facts and key points, and citing evidence, details and quotation effectively and pertinently for support and emphasis

7. English: Key Stage 4: Spoken English

- a) Planning for different purposes and audiences, including selecting and organising information and ideas effectively and persuasively for formal spoken presentations and debates
- b) Improvising, rehearsing and performing play scripts and poetry in order to generate language and discuss language use and meaning, using role, intonation, tone, volume, mood, silence, stillness and action to add impact.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Ocean Scientist

Duration: 60-90 minutes

Key Stage: EYFS & KS1

Availability: All year

Pricing tier: Workshop



Session Overview

Our 'Ocean Scientist' workshop is the perfect introduction to Marine Science! Your students will start by working in groups to conduct an experiment on the qualities of sea water. 'Saltwater Eggs' gives pupils the chance to investigate the relationship between salt and buoyancy whilst allowing them to explore and raise questions of their own based on their observations. The group will then investigate a variety of real Ocean specimens, including mermaid's purses, shark jaws and turtle shells, discussing what animal they are from and their function. The final challenge, 'Picking Plankton', is a fun filled practical exploration of the feeding techniques used by basking sharks, humpback whales, butterflyfish, and seahorses to catch plankton. Pupils will have to record the data collected from the four different tools, but who uses what, and how do they work?

Learning Objectives (in this session your students will...)

1. Carry out a scientific experiment using appropriate terminology
2. Handle real Ocean artefacts such as shark jaws and whale bones
3. Explore animal feeding techniques through a practical investigation

Learning Outcomes (following this session your students will be able to...)

1. Give examples of how a variety of marine animals are suited to their Ocean habitat
2. Formulate questions and develop simple investigations to determine answers

Pre-Visit Suggestions

- Use a world map to investigate how all the Oceans in the world are connected to make one big Ocean
- Choose a variety of different animals and try to place them on the map, exploring the idea that different animals need different environmental conditions to survive
- Research adaptations that animals have and think about how they help them to survive

Post-Visit Suggestions

- Investigate the water cycle and consider how fresh and saltwater habitats are connected
- Continue the Saltwater Eggs experiment in the class – what other objects can you find which sink or float in different concentrations of salt solution?

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

EYFS Statutory Framework Links

- 1. Communication and Language: ELG: Listening, Attention and Understanding**
 - a) Listen attentively and respond to what they hear with relevant questions, comments & actions when being read to & during whole class discussions & small group interactions
 - b) Make comments about what they have heard & ask questions to clarify understanding
- 2. Communication and Language: ELG: Speaking**
 - a) Participate in small group, class, and one-to-one discussions, offering their own ideas
 - b) Offer explanations for why things might happen, using recently introduced vocabulary
- 3. Physical Development: ELG: Fine Motor Skills**
 - a) Use a range of small tools, including scissors, paint brushes and cutlery
- 4. Understanding the World: ELG: The Natural World**
 - a) Explore the natural world around them, making observations
 - b) Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences

National Curriculum Links

- 1. English: Years 1-6: Spoken language**
 - a) Listen and respond appropriately to adults and their peers
 - b) Ask relevant questions to extend their understanding and knowledge
 - c) Articulate and justify answers, arguments, and opinions
 - d) Maintain attention and participate actively in collaborative conversations
- 2. Science: Key Stage 1: Working Scientifically**
 - a) Asking simple questions & recognising that they can be answered in different ways
 - b) Observing closely, using simple equipment. Performing simple tests
 - c) Identifying and classifying
 - d) Using their observations and ideas to suggest answers to questions
- 3. Science: Key Stage 1: Animals including humans**
 - a) Identify and name a variety of common animals including fish, amphibians, reptiles, birds, and mammals
 - b) Identify & name a variety of animals that are carnivores, herbivores, & omnivores
 - c) Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)
 - d) Find out about and describe the basic needs of animals, including humans
- 4. Science: Key Stage 1: Living things and their habitats**
 - a) 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
 - b) Identify & name a variety of plants & animals in their habitats & microhabitats
- 5. Mathematics: Key Stage 1: Measurement**
 - a) Measure and begin to record capacity and volume & Time
 - b) Choose and use appropriate units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Plastic Seas

Duration: 90 minutes

Key Stage: KS1 & KS2

Availability: All year

Pricing tier: Workshop



Session Overview

Your pupils will begin Plastic Seas by discussing how scientists make new discoveries. They will be provided with Virtual Reality headsets, allowing them to explore the Midnight Zone and discover what creatures of the deep might eat. Once completed, pupils will be given the recreated stomach contents of the marine animal and asked to investigate and classify their findings. This will include organic material such as fish and squid from a local supplier, as well as plastic waste from a recent beach clean.

To conclude, students will explore how they are able to make positive changes to combat plastic pollution, with a focus on 'Refuse, Reduce, Reuse, Recycle.' One way in which students will do this is to complete a shopping challenge, considering what materials their desired items are made from, how many times the item can be used and the overall eco-friendliness of the product, finally identifying the most ocean positive choice to make.

Learning Objectives (in this session your students will...)

1. Learn about animal food chains
2. Investigate the issue of plastic pollution
3. Explore ways in which we can have a positive impact on the Ocean

Learning Outcomes (following this session your students will be able to...)

1. Represent predator/prey relationships in a food chain
2. Recognise that plastic pollution can harm or kill marine animals
3. State ways that individuals can act to combat plastic pollution in the Ocean

Pre-Visit Suggestions

- Classify a range of animals as herbivores, carnivores or omnivores
- Keep food diaries for a week to explore your own diet
- Research different animals' diets & how this makes animals dependent on one another

Post-Visit Suggestions

- Make a wall display about plastic in the oceans in school
- Set up a Reduce, Reuse, Recycle scheme at home
- Get involved in a NMA or local beach clean
- Host a discussion to think about impacts that humans have on the ocean and its' habitats.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links:

1. Science: Key Stage 1: Working Scientifically

- a) Asking simple questions and recognising that they can be answered in different ways
- b) Using their observations and ideas to suggest answers to questions
- c) Identifying and classifying
- d) 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.

2. Science: Key Stage 1: Everyday materials

- a) Compare and group together a variety of everyday materials on the basis of their simple physical properties

3. Science: Lower Key Stage 2: Working Scientifically

- a) Ask relevant questions & using different types of scientific enquiries to answer them
- b) Gather, record, and present data in a variety of ways to help in answering questions
- c) Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- d) Using results to draw simple conclusions, make predictions for new values, suggest improvements, and raise further questions
- e) Use straightforward scientific evidence to answer questions or support findings

4. Science: Upper Key Stage 2: Working Scientifically

- a) Reporting and presenting findings from enquiries, including conclusions, causal relationships & explanations of and degree of trust in results, in oral and written forms
- b) Identifying scientific evidence used to support or refute ideas or arguments

5. Science: Key Stage 2: Animals, including humans

- a) Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- b) Construct and interpret a variety of food chains, identify producers, predators & prey

6. Science: Key Stage 2: Living things and their habitats

- a) Recognise that living things can be grouped in a variety of ways
- b) Recognise that environments can change and that this can sometimes pose dangers to living things

7. Science: Key Stage 3: Biology: Interactions and interdependencies

- a) The interdependence of organisms in an ecosystem, including food webs and insect pollinated crops
- b) How organisms affect, and are affected by, their environment, including the accumulation of toxic materials

8. English Years 1-6: Spoken language

- a) Articulate and justify answers, arguments and opinions
- b) Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- c) Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

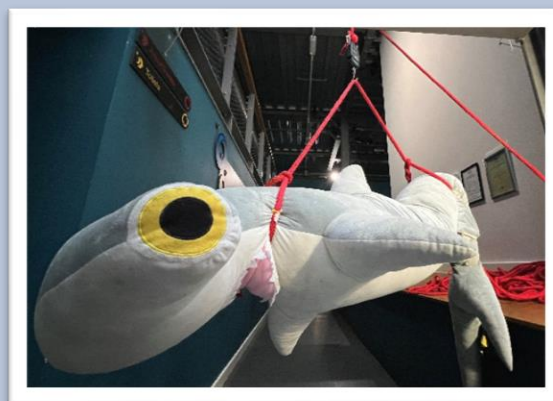
Shark Hoist

Duration: 90 minutes

Key Stage: KS2 & KS3

Availability: All year

Pricing tier: Workshop



Session Overview

In Shark Hoist your pupils will be introduced to the world of engineering through the eyes of a shark! We start with a short Virtual Reality experience in which pupils dive into our shark tank with the scuba team. Next up we answer the question of where the sharks come from, and how we get the sharks into the tanks using equipment from the engineering bay.

The challenge that follows is for students to create stretchers suitable for a hammerhead shark using a range of building materials and a winch system that can safely hoist the group's weighted hammerhead shark toy two meters off the ground. Once finalised, each group will have the opportunity to investigate other groups designs and offer comparative and constructive feedback. The session finale will see our specialists rate each design and put them to the test in our Learning Centre... It's not a competition, but there can only be one winner!

Learning Objectives (in this session your students will...)

1. Adopt the roles of Aquarium Engineers and Marine Biologists
2. Design and build a working hoist and stretcher
3. Work as a team to hoist your shark off the ground

Learning Outcomes (following this session your students will be able to...)

1. Describe the roles & responsibilities of Aquarium Engineers and Marine Biologists
2. Design and build a product fit for a specified purpose
3. Evaluate their own and others success against a design brief

Pre-Visit Suggestions

- Watch some of the following videos about our real-life shark moves: How to move a shark? Mandela moves to the Atlantic Ocean Exhibit https://youtu.be/vcN_2s2KQH0
- Moving Mandela and uShaka to Atlantic Ocean Tank <https://www.youtube.com/watch?v=Uff08c0C2PA>

Post-visit Suggestions

- Imagine that you are a shark being moved into our new Atlantic Ocean tank. Write an account of your experience, what happened and how you felt. Do you like your new home?

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. Design & Technology: Design

- a) Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups [KS2]
- b) Generate, develop, model and communicate their ideas through discussion [KS2]
- c) Identify and solve their own design problems and understand how to reformulate problems given to them [KS3]

2. Design & Technology: Make

- a) Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities [KS2]
- b) Select from and use specialist tools, techniques, processes, equipment and machinery precisely [KS3]

3. Design & Technology: Evaluate

- a) Investigate and analyse a range of existing products [KS2]
- b) Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work [KS2]
- c) Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups [KS3]

4. Design & Technology: Technical Knowledge

- a) Apply their understanding of how to strengthen, stiffen and reinforce more complex structures [KS2]
- b) Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] [KS2]
- c) Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions [KS3]

5. Art & Design: Subject Content

- a) Improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay] [KS2]
- b) Increase their proficiency in the handling of different materials [KS3]
- c) Analyse and evaluate their own work, and that of others, in order to strengthen the visual impact or applications of their work [KS3]

6. English: Years 1-6 Spoken Language

- a) Participate in discussions, presentations, performances, role play, improvisations and debates
- b) Use spoken language to develop understanding through speculating, hypothesising, imagining, and exploring ideas

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

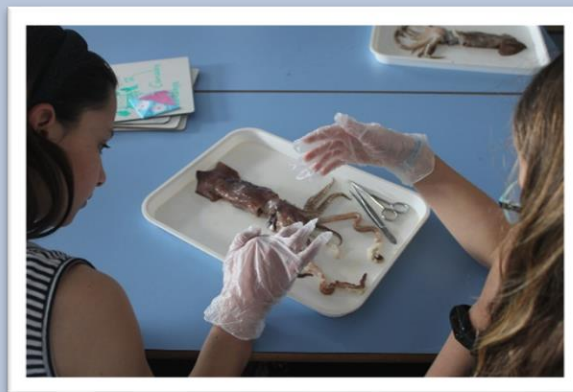
Under the Knife

Duration: 90 minutes

Key Stage: Upper KS2, KS3 & KS4

Availability: All year

Pricing tier: Workshop



Session Overview

This guided dissection workshop gives students an opportunity to gain an in depth understanding of the biology, anatomy and behaviour of a squid in real detail. Through a process of sequential dissection, observation and comparison students will identify organs widely found across the *Animalia* kingdom, including in humans, such as hearts and eyes. Students will also explore the role and function of a range of features unique to the *Cephalopoda* including ink sacks, and the remnants of internalised shells.

Students will work in groups of 5 to complete the dissections under the direction of one of our Schools Officers who will draw on their detailed knowledge of squid behaviour and life cycles to make sure no questions go unanswered.

Learning Objectives (in this session your students will...)

1. Conduct a scientific dissection
2. Explore the internal and external anatomy of a squid, identifying its key features
3. Discover how a squid is uniquely adapted to life in the Ocean

Learning Outcomes (following this session your students will be able to...)

1. Recognise the moral implications of carrying out a dissection
2. Identify key anatomical features of a squid and compare to humans
3. Locate and explain the function of the respiratory, circulatory and digestive systems

Pre-Visit Suggestions

- Learn about classification of different invertebrate and vertebrate groups
- Research different marine habitats and identify key adaptations that animals need to survive in those habitats
- Research what other animals can be found in these habitats and construct a food chain/web

Post-Visit Suggestions

- Draw a scientific diagram of a squid based on what pupils learned in the workshop
- Compare the anatomy of a squid to an animal in a different habitat, identifying key similarities and differences. Investigate how each are adapted to suit their habitats
- Carry out research on different careers that involve working with animals

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. Science: Key Stage 2: Working Scientifically

- a) Asking relevant questions & using different types of scientific enquiries to answer them
- b) Setting up simple practical enquiries, comparative and fair tests
- c) Making systematic observations and taking accurate measurements using units, using a range of equipment, including thermometers and data loggers
- d) Using straightforward scientific evidence to answer questions or support findings
- e) Pay attention to objectivity & concern for accuracy, precision, repeatability
- f) Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety

2. Science: Key Stage 2: Animals, including humans

- a) Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- b) Identify that humans and some other animals have skeletons and muscles for support, protection and movement
- c) Describe the simple functions of the basic parts of the digestive system in humans
- d) Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood

3. Science: Key Stage 2: Living things and their habitats

- a) Recognise that living things can be grouped in a variety of ways
- b) 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
- c) Give reasons for classifying plants and animals based on specific characteristics

4. Biology: Key Stage 3: Structure and function of living organisms

- a) The skeletal and muscular systems - The structure and functions of the human skeleton, to include support, protection, movement and making blood cells
- b) Biomechanics - the interaction between skeleton and muscles
- c) Biomechanics - The functions of muscles
- d) Nutrition and digestion - The tissues & organs of the human digestive system, including adaptations to function & how the digestive system digests food.
- e) Nutrition and digestion - Content of a healthy human diet: carbohydrates, lipids (fats and oils), proteins, vitamins, minerals, dietary fibre and water, and why each is needed

5. Biology: Key Stage 3: Material cycles and energy

- a) Cellular respiration - Aerobic and anaerobic respiration in living organisms

6. Biology: Key Stage 3: Interactions and interdependencies

- a) Relationships in an ecosystem - How organisms affect, and are affected by, their environment, including the accumulation of toxic materials

7. Science: Key Stage 4: Working Scientifically

- a) Appreciating the power and limitations of science and considering ethical issues which may arise

8. Biology: Key Stage 4: Ecosystems

- a) Living organisms are interdependent and show adaptations to their environment
- b) Organisms are interdependent and are adapted to their environment
- c) The importance of biodiversity
- d) Positive and negative human interactions with ecosystems.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Underwater Evolution

Duration: 90 minutes

Key Stage: KS2 & KS3

Availability: All year

Pricing tier: Workshop



Session Overview

How do you fit 800 million years of evolution into a single 90-minute activity? – By choosing the OCT’s Underwater Evolution Workshop of course!

The best learning is fun learning, and this workshop is one of our most enjoyable for teachers and students alike. The session begins with a simple introduction to essential evolution-linked terminology; adaptation, inheritance, variation, and natural selection, before taking participants on a journey from the origins of life on earth all the way through to the modern age. Pencils and dice in hand, students will track and document the evolution of their own single celled organisms through it all, but who will make it to the modern age, and what new challenges await in an uncertain future?

Learning Objectives (in this session your students will...)

1. Create a new and unique creature by playing a fun game
2. Test the principles of survival of the fittest in an ever changing environment
3. Think about how human actions can change the environment.

Learning Outcomes (following this session your students will be able to...)

1. Describe the process of evolution
2. Explain the process of natural selection
3. Talk confidently about the threat posed to some animal and plant species by environmental change

Pre-Visit Suggestions

- Look at some animals in different habitats and notice similarities and differences between them – what makes them separate species?
- Discuss how we have similar traits in very different species (e.g flight or eyesight)– why do you think that is?

Post-Visit Suggestions

- Take the creatures created in the session and design a whole ecosystem for them, placing the animals in habitats that suit them.
- Make some food chains with the animals created in the session
- Create a 3D model of your animals out of clay or plasticine

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. Science: Key Stage 2: Evolution and inheritance

- a) Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago [Y6]
- b) Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents [Y6]
- c) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution [Y6]

2. Science: Key Stage 2: Animals, including humans

- a) Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat [Y3]
- b) Identify that humans and some other animals have skeletons and muscles for support, protection and movement [Y3]
- c) Identify the different types of teeth in humans and their simple functions [Y4]
- d) Construct and interpret a variety of food chains, identifying producers, predators and prey [Y4]

3. Science: Key Stage 2: Living things and their habitats

- a) Recognise that living things can be grouped in a variety of ways [Y4]
- b) Recognise that environments can change and that this can sometimes pose dangers to living things [Y4]
- c) Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals [Y6]
- d) Give reasons for classifying plants and animals based on specific characteristic [Y6]

4. Science: Key Stage 3: Genetics and evolution

- a) Heredity as the process by which genetic information is transmitted from one generation to the next
- b) The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection
- c) Changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction

5. English: Years 1-6 Spoken language

- a) Listen and respond appropriately to adults and their peers
- b) Articulate and justify answers, arguments and opinions
- c) Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings
- d) Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- e) Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Outdoor Learning Workshops

Each Outdoor Learning Workshop has its own Programme of Study (POS) these provide a more detailed overview of the contents, curriculum links, and learning outcomes for each of the workshops available as part of the OCT Learning programme.

Each POS contains the following information:

- **Workshop Title** – Name of the workshop
- **Duration** – Expected run time
- **Key Stage** - Intended audience age (based on curriculum links, but not a requirement)
- **Availability** – Notes on seasonal availability where applicable
- **Pricing tier** – pricing per student
- **Workshop Overview** – Description of how the workshop flows
- **Learning Objectives** – Describes what students will do during the workshop
- **Learning Outcomes** –What students will be able to do after the workshop
- **Pre & Post visit suggestions** – Supporting activities ideas
- **EYFS & National Curriculum links** – Key points of the NC covered by this workshop

47

Marine Park Adventurer

Duration: 90 minutes
 Key Stage: KS1 & KS2
 Availability: April – October
 Pricing tier: Premium Workshop

Session Overview
 In Partnership with Silverline boat tour operators the group will take a one-hour trip around the National Marine Park onboard Silver Crest. The tour includes spectacular views back towards the city of Plymouth and visits to Juppodji, the breakwater and even historic Drake's Island.

Students will learn all about the food chain, starting right at the bottom. Using a trawl net the students will sieve for plankton, which they will be able to look at under a microscope! Real-life artifacts will also be investigated, allowing the students to get hands-on while discussing the different features and functions of each. Finally, the group will investigate the contents of our pre-set lobster pot, giving the pupils the opportunity to see up close some of the edible crabs and spider crabs living on the seafloor of the National Marine Park.

Learning Objectives (in this session your students will...)

1. Explore Plymouth Sound National Marine Park onboard a boat.
2. Conduct a scientific task to learn about the ocean.
3. Discuss benefits of visiting National Marine Park.

Learning Outcomes (following this session your students will be able to...)


1. Understand the important role all animals play within the food chain.
2. Use scientific equipment and artifacts appropriately.
3. Identify physical and mental benefits of access to Blue Spaces.

Pre-Visit Suggestions

- Explore a map of Plymouth. Look at where the National Marine Park is situated and where key locales are in relation to it. E.g.: Plymouth Hoe, Drake's Island, the Breakwater, etc.
- Discuss how Plymouth is the country's first National Marine Park. Why might Plymouth have been chosen and what benefits might this bring (think ecologically, socially, and economically).
- Research animals that can be found in the National Marine Park.

Post-Visit Suggestions

- Create a food chain of animals that live in the National Marine Park.



To book, or for more information:
 Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Beach Art (& Clean)

Duration: 90 minutes

Key Stage: KS2, KS3 & KS4

Availability: April - October

Pricing tier: Workshop



Session Overview

This workshop provides a creative and thoughtful blend of conservation education and artistic interpretation. Students will be given the opportunity to explore art in three different mediums. This will improve their mastery of current art and design techniques, whilst exposing them to unique methods of connecting people to the ocean. The session focuses on nature connectivity and provides different ways that art can be inspired by, and made from, the nature that surrounds us. The workshop draws on the wellness benefits of blue space, the scientific need for artistic interpretation and the ways art can be used as a vehicle for change.

Throughout the session the students will be encouraged to collect any man-made items they come across, and either incorporate it into their art, or dispose of it appropriately.

Learning Objectives (in this session your students will...)

1. Take inspiration from zen gardens, creating a 'zen beach' using materials found in the surrounding environment.
2. Use scientific drawing techniques to communicate the natural world.
3. Combine natural and man-made materials to create a temporary installation on the beach.

Learning Outcomes (following this session your students will be able to...)

1. Use new mediums that build on current skills.
2. Acknowledge the different purposes, intentions and functions of art.
3. Evaluate the role art can have within different sectors.

Pre-Visit Suggestions

- Research different marine conservation issues.
- Explore the artwork of naturalist illustrators such as Ernst Haeckel.
- Practice drawing natural objects in the school playground.
- Discuss how visiting the beach or a blue space makes you feel.

Post-Visit Suggestions

- Organise a litter pick in your local area and repurpose the items.
- Explore other ways of using beach materials for art, such as a seaweed press or driftwood sculptures

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

4. Art: Key Stage 2

- a) To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials
- b) About great artists, architects and designers in history.

5. Art: Key Stage 3

- a) To use a range of techniques to record their observations in sketchbooks, journals and
- b) other media as a basis for exploring their ideas
- c) To increase their proficiency in the handling of different materials
- d) To analyse and evaluate their own work, and that of others, in order to strengthen the visual impact or applications of their work

6. Art: GCSE

- a) Actively engage in the creative process of art, craft and design in order to develop as effective and independent learners, and as critical and reflective thinkers with enquiring minds
- b) Develop creative, imaginative and intuitive capabilities when exploring and making images, artefacts and products
- c) Become confident in taking risks and learn from experience when exploring and experimenting with ideas,
- d) Processes, media, materials and techniques
- e) Develop knowledge and understanding of art, craft and design in historical and contemporary contexts, societies and cultures
- f) Develop an awareness of the purposes, intentions and functions of art, craft and design in a variety of contexts and as appropriate to students' own work
- g) Demonstrate safe working practices in art, craft and design

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

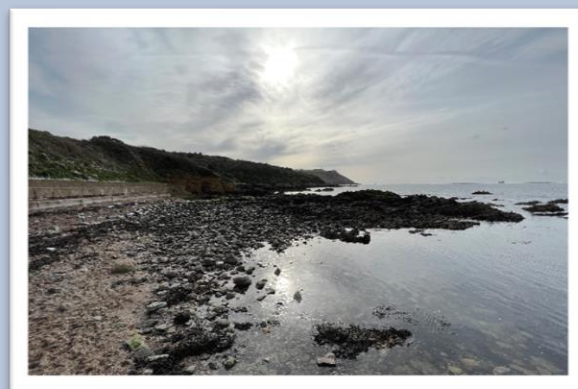
Plastic Seas on the Beach

Duration: 90 minutes

Key Stage: KS1 & KS2

Availability: April - October

Pricing tier: Workshop



Session Overview

Our most popular plastic pollution themed workshop, on the beach! Pupils will begin Plastic Seas by discussing how scientists make new discoveries. Once completed, pupils will be given the recreated stomach contents of the marine animal and asked to investigate and classify their findings. This will include organic material such as fish and squid from a local supplier, as well as plastic waste from a recent beach clean.

To conclude, students will explore how they are able to make positive changes to combat plastic pollution, with a focus on 'Refuse, Reduce, Reuse, Recycle.'

Learning Objectives (in this session your students will...)

4. Learn about animal food chains
5. Investigate the issue of plastic pollution
6. Explore ways in which we can have a positive impact on the Ocean

Learning Outcomes (following this session your students will be able to...)

4. Represent predator/prey relationships in a food chain
5. Recognise that plastic pollution can harm or kill marine animals
6. State ways that individuals can act to combat plastic pollution in the Ocean

Pre-Visit Suggestions

- Classify a range of animals as herbivores, carnivores or omnivores
- Keep food diaries for a week to explore your own diet
- Research different animals' diets & how this makes animals dependent on one another

Post-Visit Suggestions

- Make a wall display about plastic in the oceans in school
- Set up a Reduce, Reuse, Recycle scheme at home
- Get involved in a NMA or local beach clean
- Host a discussion to think about impacts that humans have on the ocean and its' habitats.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links:**9. Science: Key Stage 1: Working Scientifically**

- e) Asking simple questions and recognising that they can be answered in different ways
- f) Using their observations and ideas to suggest answers to questions
- g) Identifying and classifying
- h) 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.

10. Science: Key Stage 1: Everyday materials

- b) Compare and group together a variety of everyday materials on the basis of their simple physical properties

11. Science: Lower Key Stage 2: Working Scientifically

- f) Ask relevant questions & using different types of scientific enquiries to answer them
- g) Gather, record, and present data in a variety of ways to help in answering questions
- h) Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- i) Using results to draw simple conclusions, make predictions for new values, suggest improvements, and raise further questions
- j) Use straightforward scientific evidence to answer questions or support findings

12. Science: Upper Key Stage 2: Working Scientifically

- c) Reporting and presenting findings from enquiries, including conclusions, causal relationships & explanations of and degree of trust in results, in oral and written forms
- d) Identifying scientific evidence used to support or refute ideas or arguments

13. Science: Key Stage 2: Animals, including humans

- c) Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- d) Construct and interpret a variety of food chains, identify producers, predators & prey

14. Science: Key Stage 2: Living things and their habitats

- c) Recognise that living things can be grouped in a variety of ways
- d) Recognise that environments can change and that this can sometimes pose dangers to living things

15. Science: Key Stage 3: Biology: Interactions and interdependencies

- c) The interdependence of organisms in an ecosystem, including food webs and insect pollinated crops
- d) How organisms affect, and are affected by, their environment, including the accumulation of toxic materials

16. English Years 1-6: Spoken language

- d) Articulate and justify answers, arguments and opinions
- e) Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- f) Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Plymouth Sound Navigator

Duration: 90 minutes

Key Stage: KS1 & KS2

Availability: April – October

Pricing tier: Premium Workshop



Session Overview

This boat trip around Plymouth Sound is a fantastic way for your pupils to build upon a range of geographical skills whilst learning more about one of history's most famous naturalists.

The session begins with the pupils visiting the waterfront to compare photos of the area in the late 19th century to what it is like today, as it was at this time that naturalist Charles Darwin visited our Ocean city! Once aboard the boat, students will be challenged with spotting the landmarks that Darwin saw during his exploration of the city's coastline, including Drakes Island, Jennycliff beach and the breakwater, and recording them on their own map of the Sound using aerial photos, map keys and compasses to guide them.

No journey in Darwin's footsteps would be complete without seeing some wildlife, so binoculars are issued as standard, and we'll make a special stop to pull up a lobster pot from beneath the waves for a chance to get a close-up look at some fascinating crustaceans!

Learning Objectives

1. Discover the history of a famous explorer who once set sail from Plymouth.
2. Locate local geographical landmarks using aerial photographs.
3. Complete a map of the Plymouth Sound.

Learning Outcomes

1. Describe the achievements of famous naturalist Charles Darwin.
2. Use key vocabulary to discuss natural & manmade features of Plymouth Sound.
3. Record the landmarks of Plymouth Sound on a map through use of symbols and a key.

Pre-Visit Suggestions

- Study a variety of maps and identify their key features.
- Carry out a research project on the history of the Plymouth Sound.
- Learn about famous historical figures who once lived or stayed in Plymouth, such as Sir Frances Drake.

Post-Visit Suggestions

- Compare and contrast the coastline of the Plymouth Sound to that of a different country.
- Research where Darwin sailed on his voyage and record these findings on a map.
- Think about ways to encourage more people to positively enjoy Plymouth Sound.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. History: Key Stage 1

- a) Events beyond living memory that are significant nationally or globally.
- b) The lives of significant individuals in the past who have contributed to national and international achievements. Some should be used to compare aspects of life in different periods.
- c) Significant historical events, people, and places in their own locality.

2. History: Key Stage 2

- a) A local history study. Examples: A study of an aspect of history or a site dating from a period beyond 1066 that is significant in the locality.

3. Geography: Key Stage 1

- a) Understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom, and of a small area in a contrasting non-European country.
- b) Use basic geographical vocabulary to refer to:
 - a. Key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather.
 - b. Key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop
- c) Use simple compass directions (north, south, east, and west) and locational and directional language [for example, near and far, left, and right], to describe the location of features and routes on a map.
- d) Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features.

4. Geography: Key Stage 2

- a) Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America.
- b) Describe and understand key aspects of:
 - a. Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.
 - b. Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and waste
- c) Use the 8 points of a compass, 4- and 6-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world
- d) Use fieldwork to observe, measure record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Rockpool Safari

Duration: 90 minutes

Key Stage: KS1 & KS2

Availability: April – October

Pricing tier: Workshop



Session Overview

This immersive workshop is an excellent opportunity to explore the incredible world beneath the waves when the tide goes out. Rockpooling is a fantastic activity for people of all ages to discover the many plants and animals that live in the curious pools of wonder along the shoreline. Animals have to be hardy to survive in a constantly changing environment with fluctuating water temperatures, decreasing oxygen levels and exposure to sunlight for long periods of time, as well as rough treatment from the incoming sea. This workshop will detail some of the more intricate elements of rockpooling for older students, and instil an explorer mentality for the younger ages, all participants will learn the best spots to look out for specific animals in their habitat and they will understand the rockpooling code while looking out for swimming shrimp, skulking crabs and starfish clinging to the rocks. After participating in our rockpooling safari students will not be able to visit a beach without being drawn to the rockpools!

Learning Objectives

1. Have fun exploring rockpools along the seashore.
2. Handle and examine species carefully applying the rockpool code.
3. Develop an understanding of the interconnected nature of ecosystems and feel more connected to the ocean.

Learning Outcomes

1. Understand and apply the key points of the rockpool code.
2. Identify species using a dichotomous ID key.
3. Explain how some animals are able to survive in rockpools

Pre-Visit Suggestions

- Learn about how to use/write ID keys
- Practise some key common names of local rockpool species.
- Carryout a local freshwater ramble (lake, river, or pond) to identify freshwater species

Post-Visit Suggestions

- Apply learning to a different outdoor learning habitat using ID keys.
- Make a poster to inform/teach about the rockpool code.
- Make information profiles or a top trumps card about a creature or seaweed species they found in the rockpools.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. Science: Key Stage 1: Working Scientifically

- a) Observing closely, using simple equipment.
- b) Identifying and classifying.
- c) Gathering and recording data to help in answering questions.

2. Science: Key Stage 1: Animals, including humans

- a) Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- b) Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- c) Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

3. Science: Lower Key Stage 2: Working Scientifically

- a) Asking relevant questions and using different types of scientific enquiries to answer them
- b) Gathering, recording, and presenting data in a variety of ways to help in answering questions
- c) Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- d) Using straightforward scientific evidence to answer questions or to support their findings

4. Upper Key Stage 2: Working Scientifically

- a) Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms
- b) Identifying scientific evidence that has been used to support or refute ideas or arguments

5. Key Stage 2: Animals, including humans

- a) Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- b) Identify that animal, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- c) Construct and interpret a variety of food chains, identifying producers, predators and prey

6. Key Stage 2: Living things and their habitats

- a) Recognise that living things can be grouped in a variety of ways
- b) Explore and compare the differences between things that are living, dead, and things that have never been alive.
- c) 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
- d) Identify and name a variety of plants and animals in their habitats, including micro-habitats
- e) 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.
- f) Recognise that environments can change and that this can sometimes pose dangers to living things

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

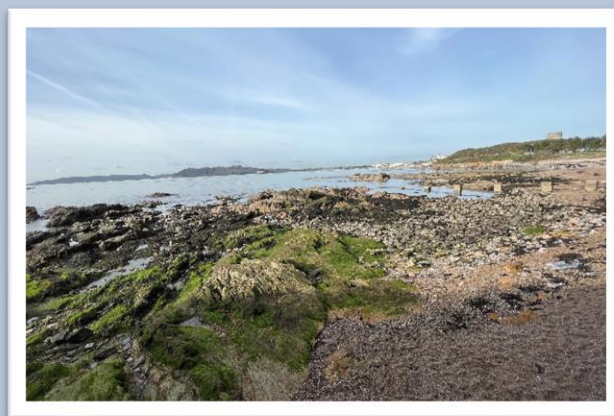
Rockpool Survey

Duration: 90 minutes

Key Stage: KS3 & KS4

Availability: April – October

Pricing tier: Workshop



Session Overview

Rockpool surveying is a fantastic activity for budding scientists to immerse themselves in the marine environment and explore the interdependencies within the rockpool habitat through hands-on fieldwork and investigation.

Intertidal organisms make fascinating subjects in a constantly changing environment with fluctuating water temperatures, shifting oxygen levels and exposure to sunlight for long periods of time. This workshop will detail some of the more intricate elements of shoreline exploration, employing scientific methods to explore species distribution, frequency, and abundance alongside techniques to investigate the intertidal organisms and habitats themselves, both biotic and abiotic.

After conducting their own shoreline survey, students will have breadth of knowledge on the intertidal regions and a data set that can be analysed and presented following their visit.

Learning Objectives

1. Investigate the intertidal zone and its inhabitants.
2. Handle and examine species using best practice and employing scientific techniques.
3. Develop an understanding of the interconnected nature of ecosystems and the impact human interaction has on the marine environment.

Learning Outcomes

1. Apply the use of survey techniques in the intertidal zone ecosystem.
2. Discuss species and adaptations and deduct their role within the ecosystem.
3. Demonstrate an understanding of the interconnected nature of marine environments.

Pre-Visit Suggestions

- Learn about how to use/write ID keys
- Practise some key common names of local rockpool species.
- Carryout a local freshwater ramble (lake, river, or pond) to identify freshwater species

Post-Visit Suggestions

- Apply learning to a different outdoor learning habitat using ID keys.
- Make a poster to inform/teach about the rockpool code.
- Make information profiles or a top trumps card about a creature or seaweed species they found in the rockpools.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

1. Science: Key Stage 3: Working Scientifically

- a) Ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience.
- b) Make predictions using scientific knowledge and understanding.
- c) Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety.
- d) Apply sampling techniques.

2. Biology: Key Stage 3: Interactions and interdependencies

- a) The interdependence of organisms in an ecosystem, including food webs.
- b) How organisms affect, and are affected by, their environment, including the accumulation of toxic materials from human sources and interaction.

3. Science: Key Stage 4: Working scientifically

- a) Appreciating the power and limitations of science and considering ethical issues which may arise
- b) Evaluating risks both in practical science and the wider societal context, including perception of risk.
- c) Recognising the importance of peer review of results and of communication of results to a range of audiences
- d) Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety

4. Biology: Interactions and interdependencies

- a) The importance of biodiversity
- b) Methods of identifying species and measuring distribution, frequency, and abundance of species within a habitat
- c) Some abiotic and biotic factors which affect communities, the importance of interactions between organisms in a community
- d) Positive and negative human interactions with ecosystems

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Science Ahoy!

Duration: 90 minutes

Key Stage: KS3 & KS4

Availability: April – October

Pricing tier: Premium Workshop



Session Overview

In Partnership with Silverline boat tour operators, the group will take a one-hour trip around the National Marine Park onboard Silver Crest. The tour includes spectacular views back towards the city of Plymouth and visits to Jennycliff, the breakwater and even historic Drake's Island.

Along the way students will have the opportunity to use scientific equipment to gather data on the visibility and salinity of the ocean, as well as sieving for plankton with a trawl net, and examining them under a microscope. Finally, the group will haul up one of our pre-set lobster pots, giving the pupils the opportunity to see up close some of the edible crabs and spider crabs living on the seafloor of the National Marine Park!

Learning Objectives (in this session your students will...)

1. Explore the National Marine Park onboard a boat.
2. Conduct scientific experiments to learn about the ocean and its properties.
3. Discuss the benefits of visiting National Marine Park.

Learning Outcomes_(following this session your students will be able to...)

1. Develop and test a hypothesis in a real-world environment
2. Use a selection of scientific equipment appropriately, to collect data & record findings.
3. Explain the differences & links between field data collection & long-term scientific study

Pre-Visit Suggestions

- Explore a map of Plymouth. Look at where Plymouth Sound is situated and where key locates are in relation to it. E.g.: Plymouth Hoe, Drake's Island, the Breakwater, etc.
- Discuss how Plymouth is the country's first National Marine Park. Why might Plymouth have been chosen and what benefits might this bring (think ecologically, socially, and economically).

Post-Visit Suggestions

- Investigate how the data your group collected compares to other seas around the world.
- Research into the groups of people (stakeholders) who use the National Marine Park.
- Think about ways to encourage more people to positively enjoy the National Marine Park.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links:**1. Science: Key Stage 3: Experimental skills and investigations**

- a) Ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience
- b) Make predictions using scientific knowledge and understanding
- c) Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety
- d) Make and record observations and measurements using a range of methods for different investigations; and evaluate the reliability of methods and suggest possible improvements
- e) Apply sampling techniques.

2. Science: Key Stage 3: Relationships in an ecosystem

- a) The interdependence of organisms in an ecosystem, including food webs
- b) How organisms affect, and are affected by, their environment, including the accumulation of toxic materials

3. Science: Key Stage 4: Experimental skills and strategies

- a) Using scientific theories and explanations to develop hypotheses
- b) Making and recording observations and measurements using a range of apparatus and
- c) methods
- d) Evaluating methods and suggesting possible improvements and further investigations.

4. Science: Key Stage 4: Ecosystems

- a) Levels of organisation within an ecosystem
- b) Organisms are interdependent and are adapted to their environment
- c) The importance of biodiversity
- d) Positive and negative human interactions with ecosystems.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Building Tours


Each School Tour has its own Programme of Study (POS), these have been developed to provide a more detailed overview of the contents, curriculum links, and recommended workshops to accompany the experience. See below for an example POS.

Each School Tour POS contains the following information:

- **Tour Title** – the name of the tour
- **Duration** – expected run time of the tour
- **Key Stage** – Intended audience age (based on curriculum links, but not a requirement)
- **Availability** – Notes on seasonal availability where applicable
- **Tour Overview** – description of how the tour flows
- **Exhibits and areas visited** – describes which locations the tour covers
- **Common topics and themes** – key concepts and themes often covered as part of the tour
- **National Curriculum links** – example NC points covered by this tour
- **Recommended OCT workshops** – our suggested workshop to combine with this tour

55

Business, Leisure & Tourism Tour
 Duration: 90 minutes
 Key Stage: Post 16
 Availability: All year
 Pricing tier: Standard Tour



Session Overview

Our Business, Leisure and Tourism tour gives your students the opportunity to use the National Marine Aquarium, owned by the Ocean Conservation Trust, as a unique case study for their learning.

A dedicated Schools' Officer will meet your group and explain how the National Marine Aquarium was launched as both a charity and tourist attraction. As students are guided through the building our Schools Officer will help further explore the balance between these two sides of the organisation, pointing out the strengths and challenges of doing so on a day-to-day basis as well as a long term, strategic one. They will also discover how our charitable aims are met, with opportunities to ask questions about our conservation projects and educational goals.

Exhibits and areas visited include:

- Plymouth Sound: Includes a range of species which can be found in the Plymouth Sound including spiny starfish, Atlantic lobsters, and a common Octopus.
- British Coasts: Features a variety of animals which inhabit waters around the coasts of Britain, including thornback skates, conger eels and small-spotted cat sharks.
- Atlantic Ocean: Journeying away from our local waters, students will observe moon jellyfish, sand-tiger sharks, our resident green sea turtle, and a range of other Aquatic life which can be found in the Atlantic.
- Blue Planet: Our tropical exhibits feature a range of stunning coral reef fish, including royal blue tangs, porcupine pufferfish and a honeycomb whiptail ray.

Common topics & themes include:

• Customer service	• Charitable aims
• Advertising & marketing	• Conservation projects
• Education	• Conservation strategy
• Organisational structure	• Business strategy
• Departmental roles & responsibilities	• Visitor demographics

Recommended OCT Workshops to accompany this Tour:

- Ocean Orator (year 6+)
- Marine Mathematics (year 6+)

To book, or for more information:
 Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Back of House (STEM) Tour

Duration: 90 minutes

Key Stage: KS3+

Availability: All year

Pricing tier: Premium Tour



Session Overview

Get behind the scenes at the aquarium with this fascinating back of house, STEM tour.

You will discover many of the intricate procedures and protocols followed by our engineers and biologists and come to understand the detail and focus required to keep the beautiful aquarium running smoothly. From food preparation to pathology labs this tour will provide fascinating facts about the natures and needs of many of our animals, including some unique diets, exciting research, and our brilliant enrichment program. Meet our back of house resident animals, check out research projects from our internship program, and see some of our biologists in action with their cleaning, feeding and vitamin measuring responsibilities.

Exhibits and areas visited include:

- Plymouth Sound: Includes a range of species which can be found in the Plymouth Sound including spiny starfish, Atlantic lobsters, and a common Octopus.
- Back of House in Plymouth Sound: To observe temperate quarantine and learn about filtration systems.
- Atlantic Ocean: Journeying away from our local waters, observe moon jellyfish, sand-tiger sharks, our resident green sea turtle, and a range of other Aquatic life which can be found in the Atlantic.
- Back of House in Atlantic Ocean: Subject to availability get to stand at the top of the deepest tank in the UK and see our large sharks from above.
- Path Lab – Discover the amazing progress in science by our vets and biologists from ground-breaking operations to fascinating necropsy procedures.
- Blue Planet: Our tropical exhibits feature a range of stunning coral reef fish, including royal blue tangs, porcupine pufferfish and a honeycomb whiptail ray.

Common topics & themes include:

- Nitrogen cycle
- Water chemistry
- Life support systems
- Marine careers
- Veterinary science
- Animal care & Welfare
- Enrichment programs
- Conditioning & target training
- Feeding & nutrition
- Aquaculture

Recommended OCT Workshops to accompany this Tour:

- Under the Knife (year 5+)
- Shark Hoist (year 4-7)

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Business, Leisure & Tourism Tour

Duration: 90 minutes

Key Stage: Post 16

Availability: All year

Pricing tier: Tour



Session Overview

Our Business, Leisure and Tourism tour gives your students the opportunity to use the National Marine Aquarium, owned by the Ocean Conservation Trust, as a unique case study for their learning.

A dedicated Schools' Officer will meet your group and explain how the National Marine Aquarium was launched as both a charity and tourist attraction. As students are guided through the building our Schools Officer will help further explore the balance between these two sides of the organisation, pointing out the strengths and challenges of doing so on a day-to-day basis as well as a long term, strategic one. They will also discover how our charitable aims are met, with opportunities to ask questions about our conservation projects and educational goals.

Exhibits and areas visited include:

- Plymouth Sound: Includes a range of species which can be found in the Plymouth Sound including spiny starfish, Atlantic lobsters, and a common Octopus.
- British Coasts: Features a variety of animals which inhabit waters around the coasts of Britain, including thornback skates, conger eels and small-spotted cat sharks.
- Atlantic Ocean: Journeying away from our local waters, students will observe moon jellyfish, sand-tiger sharks, our resident green sea turtle, and a range of other Aquatic life which can be found in the Atlantic.
- Blue Planet: Our tropical exhibits feature a range of stunning coral reef fish, including royal blue tangs, porcupine pufferfish and a honeycomb whiptail ray.

Common topics & themes include:

- | | |
|---|-------------------------|
| • Customer service | • Charitable aims |
| • Advertising & marketing | • Conservation projects |
| • Education | • Conservation strategy |
| • Organisational structure | • Business strategy |
| • Departmental roles & responsibilities | • Visitor demographics |

Recommended OCT Workshops to accompany this Tour:

- Ocean Orator (year 6+)

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Careers Tour

Duration: 90 minutes

Key Stage: KS2+

Availability: All year

Pricing tier: Premium Tour



Session Overview

This unique Aquarium tour focuses on the staff and job roles, rather than animals, found at the National Marine Aquarium.

Our Schools Officer will take your students on a fully guided tour of the working areas of the Aquarium, including the top of some of our most impressive exhibits and the offices of our CEO, finance and marketing departments. Along the way students will have the chance to hear directly from marine biologists, science communicators, retail and catering professionals, heads of department and seasonal staff to build a comprehensive picture of the many roles and skillsets found within this vibrant and dynamic STEM facility.

Exhibits and areas visited (subject to daily activities) include:

- Plymouth Sound: Observe a range of species which can be found in the Plymouth Sound. Meet a member of the public engagement team.
- Atlantic Ocean: Journeying away from our local waters, observe moon jellyfish, sand-tiger sharks, our resident green sea turtle, and a range of other Aquatic life which can be found in the Atlantic.
- Back of House in Atlantic Ocean: Stand at the top of the deepest tank in the UK and see our large sharks from above. Meet a member of our husbandry team.
- The National Marine Aquarium main office: Meet members of our management team, including the finance controllers, marketing specialists and programme administrators, maybe even get a glimpse of our CEO!
- Loading Bay & Engineering station. The heart of the logistical operation of the NMA. Meet a member of the engineering and site services team
- Gift shop/cafe: Learn about customer service from our amazing retail & catering staff.

Common topics & themes include:

- Role profiles
- Required skills
- Career paths
- Job highlights
- Experience
- Breadth of work the NMA

Recommended OCT Workshops to accompany this Tour:

- Plastic Seas (year 3-6)
- Shark Hoist (year 4-7)
- Ocean Orator (year 6+)

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Fisheries & Sustainability Tour

Duration: 90 minutes

Key Stage: Post 16

Availability: All year

Pricing tier: Premium Tour



Session Overview

This specialist tour encompasses time spent in the NMA and also at Plymouth Fish Market, located next door. Students will explore our relationship with the Ocean through commercial fisheries and the habitats connected to the industry.

Within the Aquarium students will explore topics of sustainability, aquaculture, and marine protected areas and marine management. They will also hear all about the conservation projects we run, getting a behind the scenes look at how we grow seagrass as part of our renowned seagrass restoration project.

At the fish market, students will get a close-up look at a variety of fishing equipment including beam trawls, scallop dredges, otter boards and rockhoppers, along with a range of different fishing boats.

Exhibits and areas visited include:

- Plymouth Sound exhibit: Includes a range of species which can be found in the Plymouth Sound including spiny starfish, Atlantic lobsters, and a common Octopus.
- British Coasts exhibit: Features a variety of animals which inhabit waters around the coasts of Britain, including many commercial species such as pollock, bream & bass.
- Food Prep room: The NMA's 'exhibit kitchen', where all the food for our animals is kept and prepared, each day by the husbandry team
- Plymouth Fish Market; the second largest fish market in England, situated right next to the National Marine Aquarium.

Common topics & themes include:

- Commercial fishing techniques
- Fisheries legislation
- Pollution
- Sustainability
- Marine Protected Areas
- Habitat Restoration
- Aquaculture
- Marine Management

Recommended OCT Workshops to accompany this Tour:

- Under the Knife (year 5+)

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Interactive Tour

Duration: 90 minutes

Key Stage: KS1-Post 16

Availability: All year

Pricing tier: Tour



Session Overview

Take your students on an immersive under-water adventure as they journey across the world's Ocean! You will be met by one of our dedicated Schools Officers who will guide your students through a range of fascinating Ocean habitats answering all of your students' questions along the way. Following initial introductions to each area, students will practise self-led and independent learning as they explore each exhibit, before gathering round for curriculum-linked discussions about their observations with their designated Schools Officer.

Exhibits and areas visited include:

- Plymouth Sound & British Coasts: Includes a range of species which can be found in locally including spiny starfish, Atlantic lobsters, common Octopus, thornback skates, conger eels and small-spotted cat sharks.
- Atlantic Ocean: Journeying away from our local waters, students will observe a range of Aquatic life, from moon jellyfish and sand-tiger sharks to our green sea turtle.
- Blue Planet: Our tropical exhibits feature a range of stunning coral reef fish, including royal blue tangs, porcupine pufferfish and a honeycomb whiptail ray.

Common topics & themes include:

- Climate change
- Evolution
- Habitats
- Pollution
- Lifecycles
- Classification
- Adaptations
- Senses
- Food chains
- Protected Areas
- Camouflage
- Species ID

National Curriculum links include:

KS1: How different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other

KS2: Recognise that living things can be grouped in a variety of ways [Y4]

KS3: How organisms affect, and are affected by, their environment, including the accumulation of toxic materials

Recommended OCT Workshops to accompany this Tour:

- Any! This tour links to ALL our OCT Workshops, so take your pick!

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Observational Drawing Tour

Duration: 90 minutes

Key Stage: KS3+

Availability: All year

Pricing tier: Tour



Session Overview

Our Observational Drawing tour will give your students the opportunity to practice a range of observational drawing techniques as they are guided through the Aquarium exhibits by one of our dedicated Schools' Officers. Your students will have access to a range of media throughout their tour and will be challenged to use a different technique at each exhibit, from contour drawing to continuous line drawing and shading. This hands-on observational drawing tour allows students to make full practical use of their sketchbooks as they immerse themselves in the inspiring world of Aquatic life.

Exhibits and areas visited include:

- Plymouth Sound & British Coasts: Includes a range of species which can be found in locally including spiny starfish, Atlantic lobsters, common Octopus, thornback skates, conger eels and small-spotted cat sharks.
- Atlantic Ocean: Journeying away from our local waters, students will observe a range of Aquatic life, from moon jellyfish and sand-tiger sharks to our green sea turtle.
- Blue Planet: Our tropical exhibits feature a range of stunning coral reef fish, including royal blue tangs, porcupine pufferfish and a honeycomb whiptail ray.

Common topics & themes include:

- Contour drawing
- Shading techniques
- Depth representation
- Repeating patterns
- Fine focus work

National curriculum links include:

KS3: Art & Design: Use a range of techniques to record their observations in sketchbooks, journals

KS3: Art & Design: Increase their proficiency in the handling of different materials

Recommended OCT Workshops to accompany this Tour:

- Inventafish (years 3-8)
- Beach Art (& Clean) (years 3-11)

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Toddler Tour

Duration: 90 minutes

(60-minute tour, 30 minutes self-led activity)

Key Stage: EYFS / KS1

Availability: All year

Pricing tier: Tour



Session Overview

Your group will be met by one of our dedicated Schools' Officers who will take your pupils on an interactive under-water adventure as they explore the Aquarium in search of their favourite Ocean creatures! The Toddler Tour has been capped at one hour, and packed with sensory experiences and hands-on challenges for your pupils to keep them stimulated throughout.

Following your 60-minute tour, you will be given access to a private room in the Learning Centre furnished with a range of age appropriate games and activities, including the use of 'spotter' materials and other learning aids which can also be used in the Plymouth Sound Rockpool exhibit, immediately adjacent to the Learning Centre.

Exhibits and areas visited include:

- Atlantic Ocean: Journeying away from our local waters, students will observe moon jellyfish, sand-tiger sharks, our resident green sea turtle, and a range of other Aquatic life which can be found in the Atlantic.
- Blue Planet: Our tropical exhibits feature a range of stunning coral reef fish, including royal blue tangs, porcupine pufferfish and a honeycomb whiptail ray.

Common topics & themes include:

- Movement
- Colours, Shapes & Patterns
- Counting
- Camouflage
- Dancing
- Phonetics

Statutory Framework for EYFS links include:

ELG: Listening, Attention & Understanding: Make comments about what they have heard and ask questions to clarify their understanding

ELG: Relationships: Work and play cooperatively and take turns with others

ELG: Natural World: Know some similarities and differences between the natural world around them and contrasting environments

Recommended OCT Workshops to accompany this Tour:

- Meet the Mermaid (FS1 – year 1)
- Creature Creations (FS1 – year 2)
- Ocean Scientist (FS1 – year 2)

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Tours

Programmes of Study

Each experience has its own Programme of Study (POS), these provide a more detailed overview of the contents, curriculum links, and learning outcomes for each of the sessions available as part of the OCT Virtual Learning programme.


Each one-page Virtual Tour POS contains the following information:

- **Tour Title** – The name of the tour
- **Duration** – Expected run time of the tour
- **Key Stage** – Intended audience age (based on curriculum links, but not a requirement)
- **Tour Overview** – Description of how the tour flows
- **Learning Objectives** – Describes what students will do during the workshop
- **Learning Outcomes** – What students will be able to do after the workshop
- **Common topics and themes** – Key concepts and themes often covered as part of the tour. These can be pre-selected by teachers to enhance classroom learning.

16

Virtual Tour – Enchanted Seas

Duration: 90 minutes
Key Stage: KS1



Section Overview

Take your pupils on an interactive underwater adventure as they virtually explore the Aquarium in search of their favourite Ocean creatures! Your own personal tour guide will reveal a range of fascinating, weird and wonderful facts about our Ocean creatures, answering any questions your students might have along the way. Pupils will be encouraged to actively engage with the tour, getting involved physically by acting out some of their favourite animals and playing guessing games with their guide.

Learning Objectives (in this session your students will...)

1. Observe the colours, patterns and shapes of creatures that are found in a range of Ocean habitats, including rockpools, sandy seabed, and coral reefs.
2. Explore how sea creatures are suited to their habitats and understand what they need to survive.
3. Discover how different animals are classified based on what they eat.

Learning Outcomes (following this session your students will be able to...)

1. Describe how animals are suited to different marine environments using colours and shapes.
2. Compare and contrast habitats which can be found under the sea.
3. Explain how animals can be grouped according to diet using scientific terminology.

Common topics & themes to choose from:

Conservation	Body Form & Function	Ecosystems
Climate change	Adaptations	Habitats
Pollution	Feeding Techniques	Food chains/webs
Renewable Energy	Lifecycles	Species ID
Marine Protected Areas	Camouflage & Patterns	Keystone Species
Habitat Restoration	Senses	Classification
Sustainability	Evolution	Physical Features

To book, or for more information:
Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Tour – Beneath the Waves

Duration: 90 minutes

Key Stage: KS2



Session Overview

This virtual tour will give your students the chance to immerse themselves in the underwater world, learning all about how marine animals thrive and survive in their different habitats. Students will have plenty of opportunities to ask all the questions they've ever wanted to know about marine animals and life at the aquarium, whilst their guide brings in key concepts of classifications, adaptations, and evolution. Pupils will be encouraged to actively engage with the tour, getting involved physically, mentally, and verbally!

Learning Objectives (in this session your students will...)

1. Group marine animals into different classifications based on their physical features and methods of reproduction.
2. Identify the adaptations of a variety of Ocean creatures across a range of habitats.
3. Explore positive and negative human impacts on the natural world

Learning Outcomes (following this session your students will be able to...)

1. Correctly identify different classifications of marine animals.
2. Understand how evolution and adaptation allows animals to survive in their environments.
3. Recognise the importance of our Ocean, how humans are having an impact and what we can do to protect it.

Common topics & themes to choose from:

Conservation	Body Form & Function	Habitat & Environment
Climate change Pollution Marine Protected Areas Habitat Restoration Sustainability	Adaptations & Evolution Feeding Techniques Lifecycles Camouflage & Patterns Classification & Species ID	Habitats Food chains/webs Keystone Species Connectivity

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Tour – Changing Seas

Duration: 90 minutes

Key Stage: KS3 & KS4



Session Overview

In Changing Seas, your pupils will learn some fascinating facts about some of the 4,000 animals housed at the National Marine Aquarium. They will start to understand more about how these animals have evolved to best suit their environments, and the important roles they play in the marine world. Students will be encouraged to discuss some really important issues facing the Ocean and consider the ways in which our actions, as individuals and as a community, can have a positive impact.

Learning Objectives (in this session your students will...)

1. Discuss what it's like being a marine biologist, and the many other careers available at the Aquarium.
2. Explore how animals are suited to their different environments through adaptation and evolution
3. Consider the impact that humans are having on our seas, including global warming and ocean acidification, and how conservation efforts are making a positive difference

Learning Outcomes (following this session your students will be able to...)

1. Identify different career paths based around animal care and Aquariums
2. Understand how animals change through adaptation and evolution.
3. Critically analyse the impacts humans have on the natural world.

Common topics & themes to choose from:

Conservation	Biology	Ecosystems
Climate change Pollution Renewable Energy Marine Protected Areas Habitat Restoration Sustainability	Evolution & Adaptations Reproduction & Breeding Classification Species ID	Food chains/webs Keystone Species Connectivity Interdependence Symbiosis

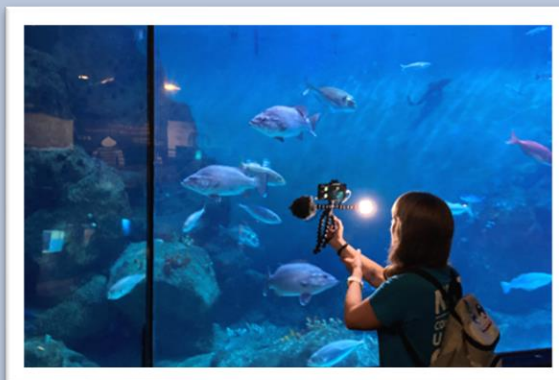
To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Tour – Enchanted Seas

Duration: 90 minutes

Key Stage: KS1



Session Overview

Take your pupils on an interactive underwater adventure as they virtually explore the Aquarium in search of their favourite Ocean creatures! Your own personal tour guide will reveal a range of fascinating, weird and wonderful facts about our Ocean creatures, answering any questions your students might have along the way. Pupils will be encouraged to actively engage with the tour, getting involved physically by acting out some of their favourite animals and playing guessing games with their guide.

Learning Objectives (in this session your students will...)

4. Observe the colours, patterns and shapes of creatures that are found in a range of Ocean habitats, including rockpools, sandy seabed, and coral reefs.
5. Explore how sea creatures are suited to their habitats and understand what they need to survive.
6. Discover how different animals are classified based on what they eat

Learning Outcomes (following this session your students will be able to...)

1. Describe how animals are suited to different marine environments using colours and shapes.
2. Compare and contrast habitats which can be found under the sea
3. Explain how animals can be grouped according to diet using scientific terminology

Common topics & themes to choose from:

Conservation	Animals	Habitats
Caring for the Ocean Climate Change Reduce, Reuse, Recycle Habitats	Camouflage & Patterns Lifecycles Senses & movement Classification & grouping Vertebrates & invertebrates	The Great Barrier Reef The midnight zone Rocky shores The National Marine Park

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Workshops

Programmes of Study

Each Virtual Workshop has its own Programme of Study (POS), these have been developed to provide a more detailed overview of the contents, curriculum links, and recommended workshops to accompany the experience. See below for an example POS.

Each two-page Virtual Workshop POS contains the following information:

Session Title – Name of the workshop

Duration – Expected run time

Key Stage - Intended audience age (based on curriculum links, but not a requirement)

Session Overview – Description of how the workshop flows

Learning Objectives – Describes what students will do during the workshop


Learning Outcomes –What students will be able to do after the workshop

Pre & Post visit suggestions – Supporting activity ideas to do before & after session

EYFS & National Curriculum links – Key points of the NC covered by this workshop

22

Fantastic Fossils
Duration: 90 minutes
Key Stage: EYFS - KS1 (Year 1)
Availability: All year
Pricing tier: Standard Workshop



Session Overview

Fantastic Fossils presents opportunities for your pupils to explore interactive sensory activities and make exciting discoveries. The activities encourage group co-operation, and verbalization of their ideas. Pupils handle real life fossils from the ocean and imagine the animals they came from. In small groups, pupils use tools to unearth fossils, piece them back together, and identify other items they might unearth in the sand. We take a closer look at how extinct animals might have looked, and finally get creative with textures to make their own fossils from modelling clay and colour-in images to create 3D models of extinct animals using augmented reality software on [hand-held](#) tablets.

Learning Objectives

1. Learn about fossils and where they come from
2. Discover and reconstruct a creature from the ancient seas
3. Find out what we can learn about animals from fossils

Learning Outcomes

1. Describe the range of shapes, sizes and textures that fossils come in
2. Explain how fossils are formed
3. Use your knowledge of extant organisms to formulate an idea of what an extinct organism may have looked like

Pre-Visit Suggestions

- Research prehistoric marine animals (there are lots of images of prehistoric fish online)
- Go for a nature walk in your school, observing and noting down any live animals, things that were alive (e.g. leaves, pinecones etc.), and things that have never been alive

Post-Visit Suggestions

- Collect & explore different rock types, observe & comment on differences between them
- Look up other examples of prehistoric marine animals and create your own interpretations
- Make and paint your own fossils at school using a Plaster of Paris kit

To book, or for more information:
Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

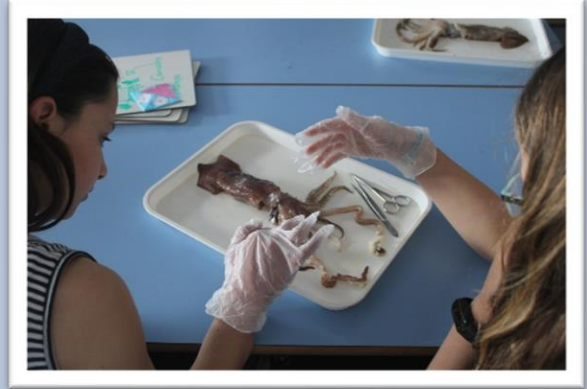
To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Workshop - Dissection

Duration: 90 minutes

Key Stage: Upper KS2, KS3 & KS4



Session Overview

This guided dissection workshop gives students an opportunity to gain an in depth understanding of the biology, anatomy and behaviour of a squid in real detail. Led by a member of our Learning Team, the students will watch a live dissection, following along in the classroom on the resources provided to enhance their learning. Through a process of sequential dissection, observation and comparison students will identify organs widely found across the *Animalia* kingdom, including in humans, such as hearts and eyes. Students will also explore the role and function of a range of features unique to the *Cephalopoda* including ink sacks, and the remnants of internalised shells. Schools Officers will draw on their detailed knowledge of squid behaviour and life cycles to make sure no questions go unanswered.

Learning Objectives (in this session your students will...)

4. Discuss the need for scientific dissections.
5. Explore the internal and external anatomy of a squid, identifying its key features
6. Discover how a squid is uniquely adapted to life in the Ocean

Learning Outcomes (following this session your students will be able to...)

4. Recognise the moral implications of carrying out a dissection
5. Identify key anatomical features of a squid and compare to humans
6. Locate and explain the function of the respiratory, circulatory and digestive systems

Pre-Visit Suggestions

- Learn about classification of different invertebrate and vertebrate groups
- Research different marine habitats and identify key adaptations that animals need to survive in those habitats
- Research other animals found in these habitats and construct a food chain/web

Post-Visit Suggestions

- Draw a scientific diagram of a squid based on what pupils learned in the workshop
- Compare the anatomy of a squid to an animal in a different habitat, identifying key similarities and differences. Investigate how each are adapted to suit their habitats
- Carry out research on different careers that involve working with animals

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

9. Science: Key Stage 2: Working Scientifically

- g) Asking relevant questions & using different types of scientific enquiries to answer them
- h) Making systematic observations and taking accurate measurements using units, using a range of equipment, including thermometers and data loggers

10. Science: Key Stage 2: Animals, including humans

- e) Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- f) Identify that humans and some other animals have skeletons and muscles for support, protection and movement
- g) Describe the simple functions of the basic parts of the digestive system in humans
- h) Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood

11. Science: Key Stage 2: Living things and their habitats

- d) Recognise that living things can be grouped in a variety of ways
- e) 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
- f) Give reasons for classifying plants and animals based on specific characteristics

12. Biology: Key Stage 3: Structure and function of living organisms

- f) The structure and functions of the human skeleton, to include support, protection, movement and making blood cells
- g) The interaction between skeleton and muscles
- h) The tissues & organs of the human digestive system, including adaptations to function & how the digestive system digests food.
- i) Content of a healthy human diet: carbohydrates, lipids (fats and oils), proteins, vitamins, minerals, dietary fibre and water, and why each is needed

13. Biology: Key Stage 3: Material cycles and energy

- b) Cellular respiration - Aerobic and anaerobic respiration in living organisms

14. Biology: Key Stage 3: Interactions and interdependencies

- b) Relationships in an ecosystem - How organisms affect, and are affected by, their environment, including the accumulation of toxic materials

15. Science: Key Stage 4: Working Scientifically

- b) Appreciating the power and limitations of science and considering ethical issues which may arise

16. Biology: Key Stage 4: Ecosystems

- e) Living organisms are interdependent and show adaptations to their environment
- f) Organisms are interdependent and are adapted to their environment
- g) The importance of biodiversity
- h) Positive and negative human interactions with ecosystems.

17. English: Years 1-6: Spoken language

- a) Ask relevant questions to extend their understanding and knowledge
- b) Articulate and justify answers, arguments and opinions
- c) Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Workshop - Evolution

Duration: 90 minutes

Key Stage: KS2 & KS3



Session Overview

How do you fit 800 million years of evolution into a single 90-minute activity? – By choosing the OCT's Underwater Evolution Workshop of course!

The best learning is fun learning, and this workshop is one of our most enjoyable for teachers and students alike. The session begins with a simple introduction to essential evolution-linked terminology; adaptation, inheritance, variation, and natural selection, before taking participants on a journey from the origins of life on earth all the way through to the modern age. Pencils and dice in hand, students will create and track the evolution of their own single celled organisms through it all, but who will make it to the modern age, and what new challenges await in an uncertain future?

Learning Objectives (in this session your students will...)

4. Create a new and unique creature by playing a fun game
5. Test the principles of survival of the fittest in an ever-changing environment
6. Think about how human actions can change the environment.

Learning Outcomes (following this session your students will be able to...)

4. Describe the process of evolution
5. Explain the process of natural selection
6. Talk confidently about the threat posed to some animal and plant species by environmental change

Pre-Visit Suggestions

- Look at some animals in different habitats and notice similarities and differences between them – what makes them separate species?
- Discuss how we have similar traits in very different species (e.g., flight or eyesight)– why do you think that is?

Post-Visit Suggestions

- Take the creatures created in the session and design a whole ecosystem for them, placing the animals in habitats that suit them.
- Make some food chains with the animals created in the session
- Create a 3D model of your animals out of clay or plasticine

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

National Curriculum Links

6. Science: Key Stage 2: Evolution and inheritance

- d) Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago [Y6]
- e) Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents [Y6]
- f) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution [Y6]

7. Science: Key Stage 2: Animals, including humans

- e) Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat [Y3]
- f) Identify that humans and some other animals have skeletons and muscles for support, protection and movement [Y3]
- g) Identify the different types of teeth in humans and their simple functions [Y4]
- h) Construct and interpret a variety of food chains, identifying producers, predators and prey [Y4]

8. Science: Key Stage 2: Living things and their habitats

- e) Recognise that living things can be grouped in a variety of ways [Y4]
- f) Recognise that environments can change and that this can sometimes pose dangers to living things [Y4]
- g) Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals [Y6]
- h) Give reasons for classifying plants and animals based on specific characteristic [Y6]

9. Science: Key Stage 3: Genetics and evolution

- d) Heredity as the process by which genetic information is transmitted from one generation to the next
- e) The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection
- f) Changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction

10. English: Years 1-6 Spoken language

- f) Listen and respond appropriately to adults and their peers
- g) Articulate and justify answers, arguments and opinions
- h) Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings
- i) Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- j) Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Workshop - Mermaid

Duration: 45 minutes

Key Stage: EYFS & KS1



Session Overview

A shorter virtual workshop for younger children. This magical experience works equally well as an enchanting introduction to the underwater world for those taking their first steps in learning about the Ocean, or as a special treat for those already familiar with some of the wonders of the Ocean.

Through the workshop pupils will meet one of our resident mermaids in the Rockpool Room – a special, hidden space in the Aquarium, not part of the usual visitor experience. Here your pupils will enjoy playing guessing games and learning fun facts with one of our mermaids before settling down for a story written special for us. (See page 3 of this POS for story choices).

Learning Objectives (in this session your students will...)

1. Name a range of Ocean animals, identifying their key features.
2. Observe a variety of items from the Ocean and use words to describe them.
3. Listen to a story about the sea and answer questions about it.

Learning Outcomes (following this session your students will be able to...)

1. Recognise the key features of different sea creatures.
2. Identify objects from the Ocean and the animals they came from.
3. Anticipate what will happen in a story that is read to them.

Pre-Visit Suggestions

- Can the pupils come up with an Ocean animal for each letter of the alphabet? Task more able pupils with spelling the animal names and putting them into sentences
- Read books featuring Mermaids and discuss what it would be like to live under the sea

Post-Visit Suggestions

- Take a trip to the seaside for a treasure hunt! Can the pupils spot any items that their mermaid told them about?
- Write a class letter to their mermaid telling them about their favourite sea creatures.

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

EYFS Statutory Framework Links

6. Communication and Language

ELG: Listening, Attention and Understanding

- c) Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions
- d) Make comments about what they have heard and ask questions to clarify their understanding

ELG: Speaking

- a) Participate in small group, class, and one-to-one discussions, offering their own ideas, using recently introduced vocabulary
- b) Offer explanations for why things might happen

7. Literacy: ELG: Comprehension

- a. Anticipate – where appropriate – key events in stories
- b. Use and understand recently introduced vocabulary during discussions about stories

8. Understanding the World: ELG: The Natural World

- c) Explore the natural world around them, making observations
- d) Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences

National Curriculum Links

1. English Years 1-6: Spoken language

- f) Listen and respond appropriately to adults and their peers
- g) Ask relevant questions to extend their understanding and knowledge
- h) Give well-structured descriptions, explanations, and narratives for different purposes, including for expressing feelings
- i) Use spoken language to develop understanding through speculating, hypothesising, imagining, and exploring ideas

2. Key Stage 1 Science: Animals, including humans

- e) Identify and name a variety of common animals including fish, amphibians, reptiles, birds, and mammals [Y1]
- f) Identify and name a variety of common animals that are carnivores, herbivores and omnivore [Y1]
- g) Describe and compare the structure of a variety of common animal (fish, amphibians, reptiles, birds and mammals, including pets) [Y1]
- h) Notice that animals, including humans, have offspring which grow into adults [Y2]

3. Key Stage 1 Science: Living things and their habitats

- a) Explore and compare the differences between things that are living, dead, and things that have never been alive [Y2]
- b) Identify that most living things live in habitats to which they are suited and describe [Y2]
- c) How different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other [Y2]
- d) Identify and name a variety of plants and animals in their habitats, including micro-habitats [Y2]

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Mermaid Tales

Our 'Mermaid Tales' stories have been written by one of our Schools Officers specialising in Early Years and SEN education. Each story is around 15 minutes long and constructed entirely through rhyming couplets. As part of your booking, we'll ask you to select a story from the table below.

During the workshop, your mermaid will read the story from the 'Mermaid Book of Tales', pausing at key points to discuss things with the children and show their drawings of characters from the story while encouraging children to draw their own later in the day.

Title	Description	Topics
Hulk's New Home	A hermit crab embarks on a mission across the beach to find himself a new home, finding friends in need of help along the way.	Materials, pollution, habitats (rockpools/beach) body form & function
Am I A Dragon?	As a confused sea creature tries to find out what kind of animal she is, her friends teach her all about the variety of life under the sea.	Classification, habitats (kelp/seagrass/sand) body form & function
Something's Not Quite Right	After discovering their coral reef home is in trouble, a group of sea creatures go on an adventure to find a new place to live.	Climate change, habitats (coral reefs) predators/prey, colours & patterns
What A Mystery!	A sperm whale comes across a mysterious object drifting through the Ocean and tries to discover what it is with the help of her deep-sea friends.	Habitats (deep/shipwrecks) body form & function, pollution
A Toothy Tale	A lost whale shark attempts to find the owner of a shark tooth and learns a lot about the similarities and differences between sharks along the way.	Dentition/feeding, fishing, predators/prey, body form & function, habitats (open ocean/sand)
What's That Sound?	A dolphin attempts to discover the source of a mysterious noise, and in doing so learns about the weird and wonderful ways that animals use sound under the sea.	Senses, habitats (seagrass/mangroves/corals) body form & function, noise pollution
The Unusual Unicorn	A mother narwhal leaves the pod to search for her lost son, finding a range of arctic creatures in need of help during her journey.	Lifecycles, habitats (polar) body form & function, pollution

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

PART SIX: Prices

This price list is correct as of February 2023 and reflects the programme prices for the academic year 2023-2024. Please check our website (www.national-aquarium.co.uk) for the latest prices, deals and special offers available for schools.

Aquarium Visits

Activity option	Cost
Explorer Visit <i>Aquarium entry only</i>	£5.50 per student Free adults in ratio (see below) £6.50 Additional adults
Interactive Visit <i>Aquarium entry</i> +1 Tour (choose from...) <ul style="list-style-type: none"> • <i>Interactive Tour</i> • <i>Observational Drawing Tour</i> • <i>Toddler Tour</i> • <i>Business Leisure & Tourism Tour</i> +1 Workshop (choose from...): <ul style="list-style-type: none"> • <i>Beach Art (& Clean)* Subject to tide & visit times</i> • <i>Creature Creations</i> • <i>Climate Conundrum</i> • <i>Habitat Hats</i> • <i>Inventafish</i> • <i>Meet the Mermaid</i> • <i>Ocean Orators</i> • <i>Ocean Scientist</i> • <i>Plastic Seas</i> • <i>Rockpool Safari* Subject to tide & visit times</i> • <i>Rockpool Survey* Subject to tide & visit times</i> • <i>Shark Hoist</i> • <i>Under the Knife</i> • <i>Underwater Evolution</i> 	£8 per student Free adults @ key stage ratios: 1:3 EYFS 1:7 Primary 1:10 Secondary £6.50 Additional adults
<i>Upgrade your Tour to a Premium Tour:</i> <ul style="list-style-type: none"> • <i>Back of House Tour</i> • <i>Careers Tour</i> • <i>Fisheries Tour</i> <i>Upgrade your Workshop to a Premium Workshop with Silverline Boat Trips (Subject to tide & visit times):</i> <ul style="list-style-type: none"> • <i>Marine Park Adventurer</i> • <i>Plymouth Sound Navigator</i> • <i>Science Ahoy!</i> 	+ £1.50 per student + £115 per class of 32

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Outreach Activities

Activity option	Cost (all prices include VAT)
<p>School & Classroom workshops</p> <ul style="list-style-type: none"> • <i>Climate Conundrum</i> • <i>Habitat Hats</i> • <i>Inventafish</i> • <i>Ocean Scientist</i> • <i>Plastic Seas</i> • <i>Under the Knife</i> • <i>Underwater Evolution</i> <p>Outdoor Learning workshops (April – October only. Subject to tide times)</p> <ul style="list-style-type: none"> • <i>Beach Art (& Clean)</i> • <i>Rockpool Safari</i> • <i>Plastic Seas on the Beach</i> • <i>Rockpool Survey</i> 	<p>£150 per workshop</p>
<p>STEM Shows & Assemblies</p> <ul style="list-style-type: none"> • <i>An animal like me</i> • <i>Climate Heroes</i> • <i>The Mating Game</i> 	<p>£100 per show</p>
<p>Table stands / mobile busking & event stewarding (activities by agreement)</p> <ul style="list-style-type: none"> • <i>Busking</i> • <i>Careers talks</i> • <i>Science demonstrations</i> • <i>Table activities</i> 	<p>(Cost by agreement)</p>
<p>Travel contribution</p>	<p>£0.45 per mile return journey (PL1-9 venues exempt from travel contributions)</p>

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk

Virtual Experiences

Activity option	Cost <i>(All prices are inclusive of VAT)</i>
<p>Virtual Tours <i>(Choose from...)</i></p> <ul style="list-style-type: none"> • <i>Beneath the Waves</i> • <i>Changing Seas</i> • <i>Enchanted Seas</i> 	<ul style="list-style-type: none"> • £120 for a class up to 32 students • £60 per additional class
<p>Virtual Workshops <i>(Choose from...)</i></p> <ul style="list-style-type: none"> • <i>Virtual Dissection</i> • <i>Virtual Evolution</i> • <i>Virtual Mermaid</i> 	<ul style="list-style-type: none"> • £120 for a class up to 32 students • £60 per additional class • £120 for a class up to 32 students • £60 per additional class • £60 for a class up to 32 students • £30 per additional class

Booking process

To book any of the experiences contained in this brochure, please contact the Schools Team directly on 01752 275 233, or email learning@oceanconservationtrust.org

To book, or for more information:

Call us now on 01752 275 233 or email learning@oceanconservationtrust.org
www.national-aquarium.co.uk