Marine Citizens of Plymouth's National Marine Park

The Box

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About The Box

The Box is Plymouth's new multi-million pound museum, gallery and archive. With brand new exhibition spaces alongside state-of-the-art facilities for research and learning, it's the perfect place to teach, inspire and engage students of all ages.

Visit our Mammoth Gallery at The Box with your school to find out more about how climate has changed over time in Plymouth, and how this has impacted the different species that live here. Arrange your visit by going to theboxplymouth.com

About our contributors

Thank you to all of the contributors to this resource, from Plymouth University, Plymouth Marine Lab, Princess Yachts, the Tamar Estuaries Consultative Forum, Swim England, the RNLI, the Conscious Ssiters and The Box. With particular thanks to Lou Hoskin at Plymouth University for shaping and informing the content of this resource.

Plymouth's National Marine Park

The Plymouth Sound National Marine Park (NMP) aims to reconnect Plymothians to the sea, rekindling a golden thread between citizens and their ocean heritage, including the marine environment, culture and history.

It will nurture our natural and cultural heritage for the benefit of current and future generations, whilst aiming to develop a sense of marine citizenship and support sustainable heritage management. The UK's first NMP will create opportunities for residents, businesses and visitors to reconnect with and explore the ocean in exciting ways and to enjoy a city where landscape, nature and community heritage in all its forms can be enhanced, understood and valued for the benefit of people, place and planet.

Climate Change and the National Marine Park

The climate on earth has always changed. At The Box our collections of fossils and pickles show us that over a timescale of millions, thousands and hundreds of years, as temperatures change so do the species that have lived here in Plymouth. Take the Wooley Mammoth for example, who was able to roam the shores of Plymouth Sound 35,000 years ago, when temperatures were much colder.

The same process is happening today in Plymouth's National Marine Park. As the climate changes so too do the species that can live here.

Whilst some cannot cope with changes to their habitat and to sea temperature, other species previously never seen in the Sound are now arriving as the water becomes warmer, which disrupts and changes the existing ecology.

But the difference today, and for the last 200 years, is that human activities are the main driver of the changes in our climate. Temperatures are rising globally and will continue to rise if people don't act to reduce or reverse these changes.

How to use this resource

Everyone can help to look after Plymouth's National Marine Park.

This resource celebrates just a handful of the hundreds of people who work on, play in, experience and enjoy Plymouth's National Marine Park every day.

Use this resource to find out how each of these people help to look after and protect the Marine Park and wider environment, and the '21st Century Skills' of Communication, Collaboration, Creativity and Critical Thinking they use to do this. Then go to the 'Ideas for Activities' page to think about your own skills and how you can also protect the National Marine Park.

Policy Coordinator

Name: **Amelia Sturgeon**
Job: **Tamar Estuaries Consultative Forum (TECF) Coordinator**

How do you interact with Plymouth's National Marine Park in your job?
The National Marine Park is a really special and important place. The characteristics of the estuary such as the shape of the coastline and the shallow water here create a unique environment that supports a huge diversity of marine life. Under the water there are habitats like reefs and kelp forests as well as old shipwrecks, and along the shoreline in the intertidal zone there are mud flats and salt marshes. This means that lots of different types of fish, plants and birds live here. Because it is so special, there is legal protection for this area to make sure that it doesn't get destroyed – that protection makes the National Marine Park a 'Marine Protected Area'.

But protecting our marine protected area isn't easy. Different people who use Plymouth Sound have different needs – there's the Ministry of Defence who have ships and submarines, it's a commercial port with fishing and cargo ships, there's the land owners of the seabed and shoreline and then there are all the people that just use it for fun, like swimmers and sailors. All of these different people have a legal responsibility to protect the area, but they all have different needs and ways that they interact with the Marine Park, so sometimes problems can come up too. My job is bringing all of those people together around a table, to find out what the problems are, and work together to solve them. This group is called the Tamar Estuaries Consultative Forum, and I coordinate the Forum so that we can all work together to keep to our legal responsibility to look after the marine protected area.

How do you help to protect the National Marine Park?
Bringing different people together to solve problems is the best way that I help to protect the National Marine Park. For example, Natural England recently reported that some of our habitats like seagrass are under pressure. This habitat is really important and provides us with lots of benefits so we need to preserve it. Seagrass likes to live in sheltered areas, but this is also where people with boats like to moor (drop their anchor), and the anchors can damage the seagrass. So we are working in partnership with other organisations to solve this problem. So far we are mapping where the seagrass is in the Sound, we are testing brand new technology to provide alternative ways to anchor boats so the seagrass isn't damaged, and they are working with a boaters, schools and communities so that more people can understand why this is so important. Working to solve this problem has involved everyone in the Forum, but we're still working to find new ideas and a solution to this problem.

Protecting the Marine Park also includes being aware of the impact that climate change is having. Although we still don't know the full impact of climate change on the species and habitats in the National Marine Park, any changes to sea temperature, the amount of storms that happen, or the changes to sea levels directly impact the species and habitats in the Sound. For everyone in the Forum to meet their legal responsibility of protecting the marine protected area, we always need to be aware the climate change is having an impact too.

What are the two most important '21st Century Skills' skills that you use to help the NMP / environment?
Collaboration: Bringing together all the different groups of people who use the National Marine Park to talk and work together is the most important way that I help the environment. We all have the common ground of needing to look after this marine protected area, so helping different people to collaborate around this shared goal is really important.

Critical thinking: Together at the Forum, we are always thinking critically to find solutions to problems. With so many different users and uses of the National Marine Park, problems will always come up. So together, we work out what those problems are, and then think of actions that we can take to tackle these.

Policy Coordinator

Name: **Amelia Sturgeon**
Job: **Tamar Estuaries Consultative Forum (TECF) Coordinator**

Find out more about Amelia's work and the Tamar Estuaries Consultative Forum:
Tamar Estuaries Consultative Forum - Plymouth MPA (plymouth-mpa.uk)

Find out more about the ReMEDIES project to restore seagrass beds in Plymouth and elsewhere:
Home - Save Our Seabed

Curator

Name: **Sarah Marden**
Job: **Natural History Curator at The Box**

How do you interact with Plymouth's National Marine Park in your job?
As Natural History Curator at The Box part of my job is to look after our collection of "pickles", which you can come and see in our Mammoth Gallery. We have 4000 pickles! The pickles are a collection of marine species that are stored in jars, and they were originally collected by the Marine Biological Association before being given to us here to look after. They started being collected almost 140 years ago in 1884, when some scientists were worried that too much fishing was having an impact on the amount of fish in the sea. To find out if this was true, they started taking surveys of the marine (underwater) species here in Plymouth every year and still do to this day. The pickles were collected to try and make a complete collection of all the marine fauna (animals) you could find living in Plymouth Sound. The collection is so useful as we can use it to see how species have changed over time, which helps people to understand more about Plymouth's National Marine Park.

How do you help to protect the National Marine Park?
The pickles show us that climate change is having an impact on the species that live in the National Marine Park. For example, there are some species like octopuses whose numbers have exploded in recent years. There are so many of them that some fisherman in Plymouth describe them as a "plague of octopuses". There are less of other species too, like some of the white fish that we eat. At The Box I can use our collection of pickles to show these types of change and share them with the public, and shine a light on how climate change is impacting the species in the National Marine Park.

But the Mammoth Gallery at The Box also acts as a platform to share messages of hope. So many different people and organisations in Plymouth are taking action to reduce the impacts of climate change. Now more than ever it is vital that we share the amazing research and activities that are taking place here in Plymouth to build understanding and care for our natural environment.

What are the two most important '21st Century Skills' skills that you use to help the NMP / environment?
Communication: Communication is a fundamental part of my job as a Curator. At The Box our mission is to 'reimagine the future through the past', which I do by sharing our collections – including the pickles – in as many different ways and with as many different people as possible. The collections here at The Box belong to all of us, so helping everyone to look at them and find out about them is a really important part of my job.

Collaboration: I work with lots of different people and organisations to support this communication. That's everyone from artists wanting to be inspired by the natural history collections for their work, to scientists, charities and research groups whose work contributes to caring for the environment. And the collaboration goes further than just Plymouth too. The water of the National Marine Park here in Plymouth is connected to all of the sea and water in the world, so anything that we do to help protect the National Marine Park ultimately helps to protect the sea and environment ar ound the world too.

Curator

Name: **Sarah Marden**
Job: **Natural History Curator at The Box**

Book a visit to see our collection of pickles with your school:
theboxplymouth.com/schools

Scientist

Name: **Jasmin Dorinda**
Job: **PhD Researcher in Environmental Sciences at Plymouth Marine Laboratory and University of East Anglia**

How do you interact with Plymouth's National Marine Park in your job?
In my PhD research I take samples of water from the top of the River Tamar, past Devil's Point in Plymouth Sound, and all the way out to the Western English Channel Observatory. I'm part of the Marine Biogeochemistry and Observations Team at Plymouth Marine Laboratory who are looking at changes to the water biology and chemistry over time. We explore the Tamar from river to coast once a month and bring all the water samples back to the Lab where they are analysed for all sorts of different things, including nutrients, carbon and DNA. In that team, my job is to look at the presence of greenhouse gases in the water.

Greenhouse gases trap heat energy from the sun and keep it in the Earth's atmosphere. In the last few hundred years, human activities have released higher levels of these greenhouse gases than would naturally occur. This means our planet is now experiencing rapid global warming which humans, wildlife and the natural environment can't keep up with. I look at how changes to the quantity of water and sources of human pollution - such as agricultural fertilisers and wastewater sewage - entering Plymouth Sound from the River Tamar affects the amount of these gases entering the atmosphere from the water surface.

How do you help to protect the National Marine Park?
The information I gather through my research in the River Tamar and Plymouth Sound can inspire solutions to reducing water pollution and restoring thriving wetland habitats, like floodplains and salt marshes.

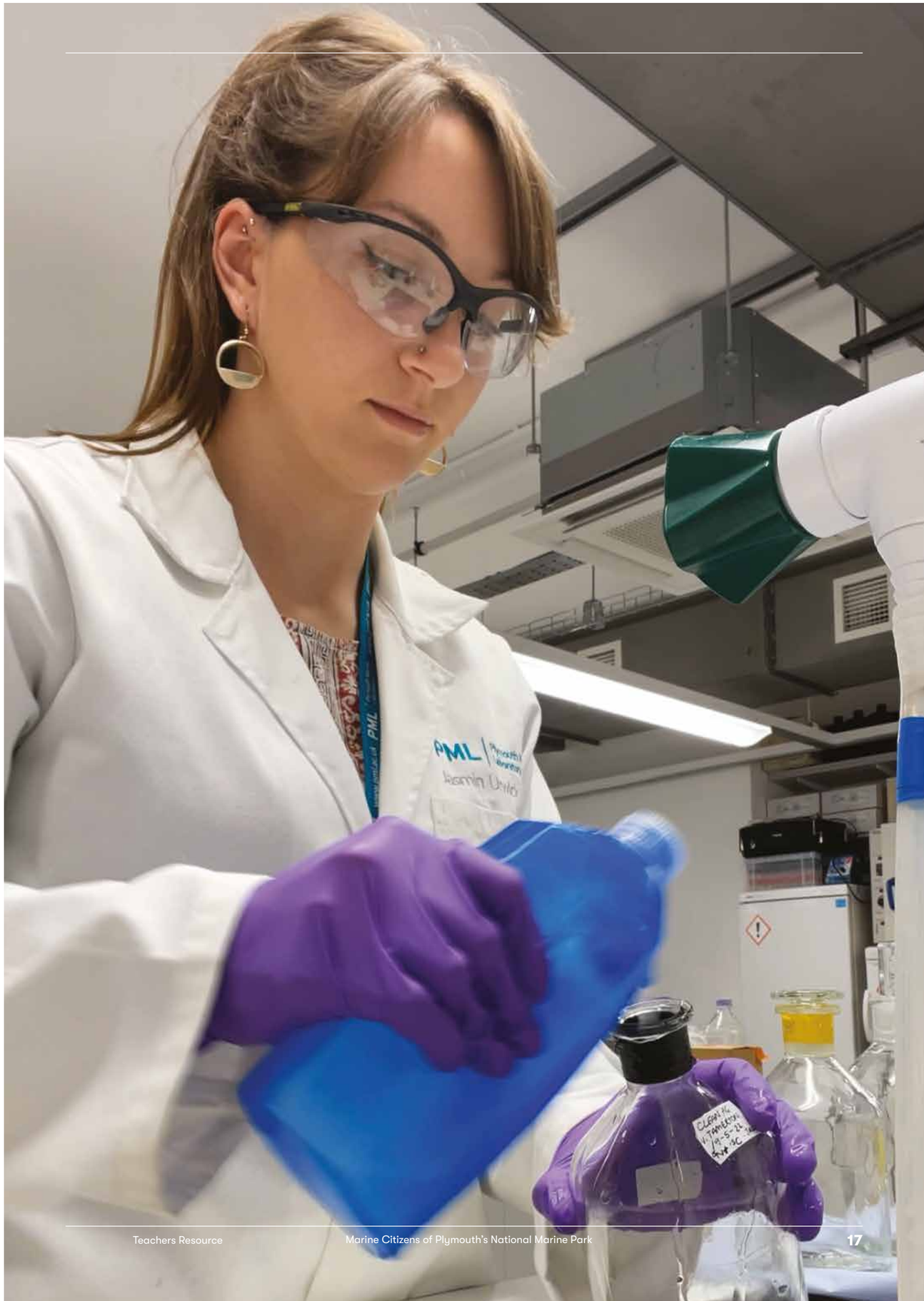
I didn't know how important rivers, estuaries and coastal waters were as sources and sinks of greenhouse gases until I did a masters degree in Applied Marine Sciences at the University of Plymouth. Now I'm learning all about the microscopic life that live in these rich habitats which play an important role in regulating our climate and how we as humans can make better decisions to reduce pollution levels. All of this helps towards supporting thriving ecosystems in the National Marine Park.

Outside of my work, I enjoy swimming at sunrise in Firestone Bay and kayaking across Plymouth Sound. I'm part of an active community who advocate for responsible outdoor exploration, reducing our use of vulnerable water resources and single-use items wherever possible. I encourage others to take part in citizen science projects where you can be part of collecting important data to help protect the areas you love the most!

What are the two most important '21st Century Skills' skills that you use to help the NMP / environment?
Communication: Finding creative ways to communicate scientific research is one of the most fun and important parts of my job! For example, I am learning how to use animations to show the journey of water from river to coast. Some people learn better with pictures, videos and sound. It can help us to lock information into our brains so we can access it when we need to make decisions about how we use the environment.

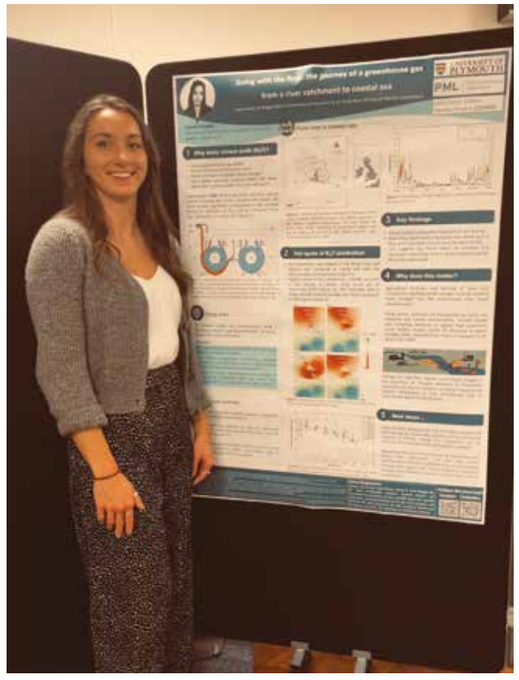
Collaboration: "Individually, we are one drop. Together, we are an ocean". - Ryunosuke Satoro.

Scientific research relies on bringing different skills, experiences, mindsets and personalities together. I am continuously learning from my team and other researchers around the world. I am currently working with people with knowledge in ecology, hydrology, chemistry, microbiology, social science and climate change. It's also important we collaborate with others outside of science to help us find creative solutions to challenges that effect all of us as a global community.



Scientist

Name:
Job: **PhD Researcher in Environmental Sciences at Plymouth Marine Laboratory and University of East Anglia**



Find out more about Jasmin's PhD:
Jasmindorinda.co.uk

RNLI

Name: **Simon Jeffery & Wesley Foster**
Job: **Coxswain Mechanic and Mechanic at Royal National Lifeboat Institution (RNLI) Plymouth**

How do you interact with Plymouth's National Marine Park in your job?
At the RNLI we provide a 24 hours a day, 7 days a week and 365 days a year rescue service, ready to save lives at sea. To do that we have two lifeboats – an All Weather Lifeboat and an Inshore Lifeboat – as well as a volunteer crew who are ready to drop everything and get to the Lifeboat station as soon as they hear the 'lifeboat shout' on their pager.

Our rescue service covers all of the National Marine Park, and stretches further out as well – to Whitsand Bay in the East, Bigbury Bay in the West, and as far as necessary South out to sea. We go out into the National Marine Park and beyond in the lifeboats two or three times a week for training exercises with our crew. We need to make sure that the crew practice carrying out all of our procedures - like tying knots and rescue procedures - so that when it comes to an emergency these skills are second nature to them.

How do you help to protect the National Marine Park?
We take actions where we can to reduce pollution and our use of energy.

When we're out in the National Marine Park, if we see a big collection of rubbish in the water like fishing nets or natural debris like fallen floating trees and branches, then we notify the King's Harbour Master in Plymouth who can remove it from the water. We also try to minimise using plastic in our training exercises – for example we need to use electrical tape on our catting line (part of the anchor line) which is plastic, so we try to use as small a piece as possible.

At the lifeboat station we do lots of things like having recycling bins, turning lights off when we're out of the room, and we have just had LED lights put in which saves energy too. We both live locally so can walk to the station rather than drive. We also reuse kit from our lifeboat crew if they leave, passing it on to someone else in the crew so that we don't create unnecessary waste. All of these help to create a better environment.

Our lifeboats still use diesel engines as they need to be able to operate reliably in all weather conditions, and the technology for electric engines isn't good enough yet to use for Lifeboats.

What are the two most important '21st Century Skills' skills that you use?
Critical Thinking: Critical thinking and problem solving is massively important in what we do. We have so many procedures that we drill and practice, but 9 out of 10 times when we get to an emergency the situation that we find is totally different and can be much worse than what we were expecting. So we arrive with plan A, but then have to quickly go through plans B, C, D...Being able to problem solve in rapidly changing situations, often in extreme weather conditions, is vital.

Collaboration: We work with lots of other agencies – the Coastguard, Devon & Cornwall Police, Rame NCI, Fire, Ambulance. It's so important for us to collaborate with them, so that we can find exactly what an emergency is and make sure we're sending out the right lifeboat and number of crew. We then need to work with these agencies again when we're back to shore. Within our crew, we collaborate together to make the most of everyone's skills, like finding new ways to fundraise or to share water safety information with the public.

RNLI

Name: **Simon Jeffery & Wesley Foster**
Job: **Coxswain Mechanic and Mechanic at Royal National Lifeboat Institution (RNLI) Plymouth**

Lifeboats

Find out more about Plymouth's RNLI:
plymouthrnli.org/

Book the RNLI to come to your school:
rnli.org/youth-education

Communicator

Name: **Lou Hoskin**
Job: **Knowledge Exchange Officer at University of Plymouth Marine Institute**

How do you interact with Plymouth's National Marine Park in your job?
My job is all about connecting the work that is happening at the National Marine Park and at Plymouth University with the people who live and work in Plymouth. Plymouth is Britain's Ocean City and everyone who lives here is connected to the sea, no matter whether they work on it, play in it, or have never even visited – we're all connected in some way. At the University, we're doing lots of really interesting research into that connection – everything from how to limit the impact of plastics pollution in the sea, to the fish and species that live there, to the ways that people can reduce how much carbon they use. I help to communicate that research out to people in Plymouth.

But for me the most important part of my job is the "exchange" part. As well as sharing what the University and NMP are doing I listen and work with people in Plymouth to hear what they need too, so that they can make their own connection with the Marine Park, and I bring this knowledge back into the University as well.

How do you help to protect the National Marine Park?
I show and share the range of opportunities available for people in Plymouth to connect with the National Marine Park. Not everyone knows the different ways that they can be involved. The more that people use and experience the National Marine Park, the more relevant and important it will be to their lives, and so the more they will be motivated to help protect it. That protection can be everything from making different consumer choices, to awareness of options about their own future career. I once taught someone how to swim in the sea and look underwater at a coral reef, and they were so impacted and inspired by the experience that they went on to change their career choices and became a marine scientist.

In my experience of the National Marine Park outside of my job, I play in, near, and on the water regularly. It is important to me to see the ocean everyday as I find it really benefits my mental health. I also do things like collect rubbish from the shoreline or that I see in the sea and use household products with as few polluting chemicals or plastic packaging as possible. I talk to friends and people I work with about this too, to promote awareness of similar benefits, changes, and choices.

What are the two most important '21st Century Skills' skills that you use to help the NMP / environment?
Communication: I spend a lot of time talking to different people to make information about the National Marine Park easy for them to find and access. Lots of people in Plymouth don't know how they can experience the National Marine Park or help to protect it, so showing people the huge variety of ways in which they can do that is a really important part of my job.

Collaboration: There are so many different people that use the National Marine Park – people on boats or boards, , fishers, swimmers, the ministry of defence, container ships... – and everyone can play their part to protect the environment that they use. Helping these different groups to collaborate around a shared purpose of celebrating the National Marine Park is vital to my job.

Artists

Name: **Karen Evans and Fiona Evans**
Job: **The Conscious Sisters Artists**

How do you interact with Plymouth's National Marine Park in your job?
As The Conscious Sisters we create unique art projects working with and for the community. Our current project is called 'The Gathering' and it is a celebration of Plymouth Sound. The project started from a realisation that many people in Plymouth have lost their connection to the land and the sea. In this project we are bringing together people living in neighbourhoods which border the Plymouth Sound as well as one from the suburbs of Plymouth, to help people to find their own connection to the sea, and represent that using art. We work with the very best environmental, creative and heritage experts to explore our relationship to the ocean, which we're using to develop ideas for a brand new creative community event in Summer 2025.

To do this, in 'The Gathering' we're using different themes to work with different people. For example, we'll be creating sound art and finding out about sea shaty's with the theme 'Plymouth Sounds' and we be rock-pooling and discovering the beach, rocks and shells in the theme 'Life between the tides'. We have lots of different themes, which means we can work with lots of different people.

How do you help to protect the National Marine Park?
Art can change the world.
An event that celebrates our maritime and seascape history will bring everyone involved closer to the sea. By revisiting lost traditions and forgotten stories, working class histories, narratives of food, spirituality, survival and identity, we can bring many people into this project, to help them to find their own connection to the sea. We're working with community groups, schools, workers, fishermen – everyone. This project will enable people in Plymouth to discover their own relationship with the sea, which will inspire the people involved to want to protect it too. We know that there are lots of small actions that we can all do to help the environment – like using less plastic and energy. 'The Gathering' will help people to see the connection between their own actions and the wider environment.

What are the two most important '21st Century Skills' skills that you use to help the NMP / environment?
Collaboration: Collaborating with people in Plymouth is at the heart of our artistic practice. We bring communities together, and enable people's ideas to become a reality. One example in 'The Gathering' project is to find out about heritage crafts like Gansey knitted jumpers ('Gansey' is the word for distinctive woven patterns on jumpers) and then have helped them to develop the skills to knit these patterns. This is a project where we collaborated with people to find out what they were most interested in, and then we are creating artwork out of it. All of our projects are co-created by the people taking part. We decide together what aspect of the coast we are interested in and then we decide together what we are going to do.

Creativity: When we work with different groups of people – whether it's schools, community groups, or people who live and work in Plymouth - we're helping those people to create their own ideas and turn them into works of art. We encourage and support people not only to develop creative thinking, but also creative skills. We've helped people to learn everything from woodwork, to willow weaving, to felting, to land art, and even tanning and preparing fish skins into leather! The Gathering is way to use creativity to help people to rediscover lost skills of the sea.

Find out more about The Gathering and the Conscious Ssiters on their website: theconscioussisters.com/thegathering

Naval Architect

Name: **Lawrence Walters**
Job: **Naval Architect at Princess Yachts**

How does interact with Plymouth's National Marine Park in your job?
As a Naval Architect my job is to test our boats once they've been built to make sure they match their original design before they go to their customer. One of the most important things I do is to make sure that our boat floats evenly in the water, for example by making sure they aren't weighed down too much on one side. Princess Yachts build about 200 boats a year right here in Plymouth, and each one of these will be tested in Plymouth Sound. We test for things like their top speed, how much noise they make and how well they turn in the water.

How do you help to protect the National Marine Park?
Princess Yachts are always thinking about how to reduce the environmental impact of our boats. One way we have done this is to improve the design of the hull (the bottom) of the boats so that they move through the water more efficiently and so need less fuel to move. We are exploring the use of hybrid engines that run using electric as well as diesel power which reduces the amount of diesel that is used.

Outside of my work, I do lots of other things to help protect the environment. I cycle everywhere and make other changes to help reduce waste and consumption. Protecting the National Marine Park and the sea is important to me – I swim every week in the Marine Park, and once spent three months at sea, rowing from America to England.

What are the two most important '21st Century Skills' skills that you use in your work?
Communication: Being able to work with lots of different people is vital in my job, and I need to be able to communicate with different people and teams in our company to solve any problems that come up.

Critical Thinking: When testing boats I have to be able to work quickly to identify any problems, and decide what to prioritise. I then use lots of maths and physics to solve problems, like getting the weight balance of a boat right.

Find out more about Lawrence and being a Naval Architect here: www.bbc.co.uk/bitesize/articles/zkn3mfr

Find out more about Princess Yacht's Environmental policy and how they support the National Marine Park as part of 'Britain's Ocean City here: Plastics Task Force

Image © Jacob Gibbins / Aspect Media

Swimmer

Name: **Beth Barratt**
Job: **Swimmer in the National Marine Park and Project Lead for Swim England**

How do you interact with Plymouth's National Marine Park?
My job at Swim England is running programmes in primary schools that encourage and enable water safety skills, as well as making swimming accessible to more people. Although I live in Plymouth, my work is mainly with schools in the Midlands. We run activities both in and out of the water to help more people to swim safely, which even includes online games where children and adults can test each other on the water safety code.

I really enjoy using the National Marine Park in lots of different ways – I've sailed here, I like going on my stand up paddleboard, and I volunteer for the RNLI. But most of all I love swimming in the sea and swim in the National Marine Park at Tinside or Firestone Bay several times a week, whatever the weather and all through the winter. I try to encourage anyone who wants to try salt water swimming but doesn't want to get in the sea to go to Mount Wise swimming pool – it's right next to the National Marine Park and is free!

How do you help to protect the National Marine Park?
I make loads of choices every day that help to protect the environment, and because the National Marine Park is such an important part of our local environment, those choices help to protect the Marine Park too.

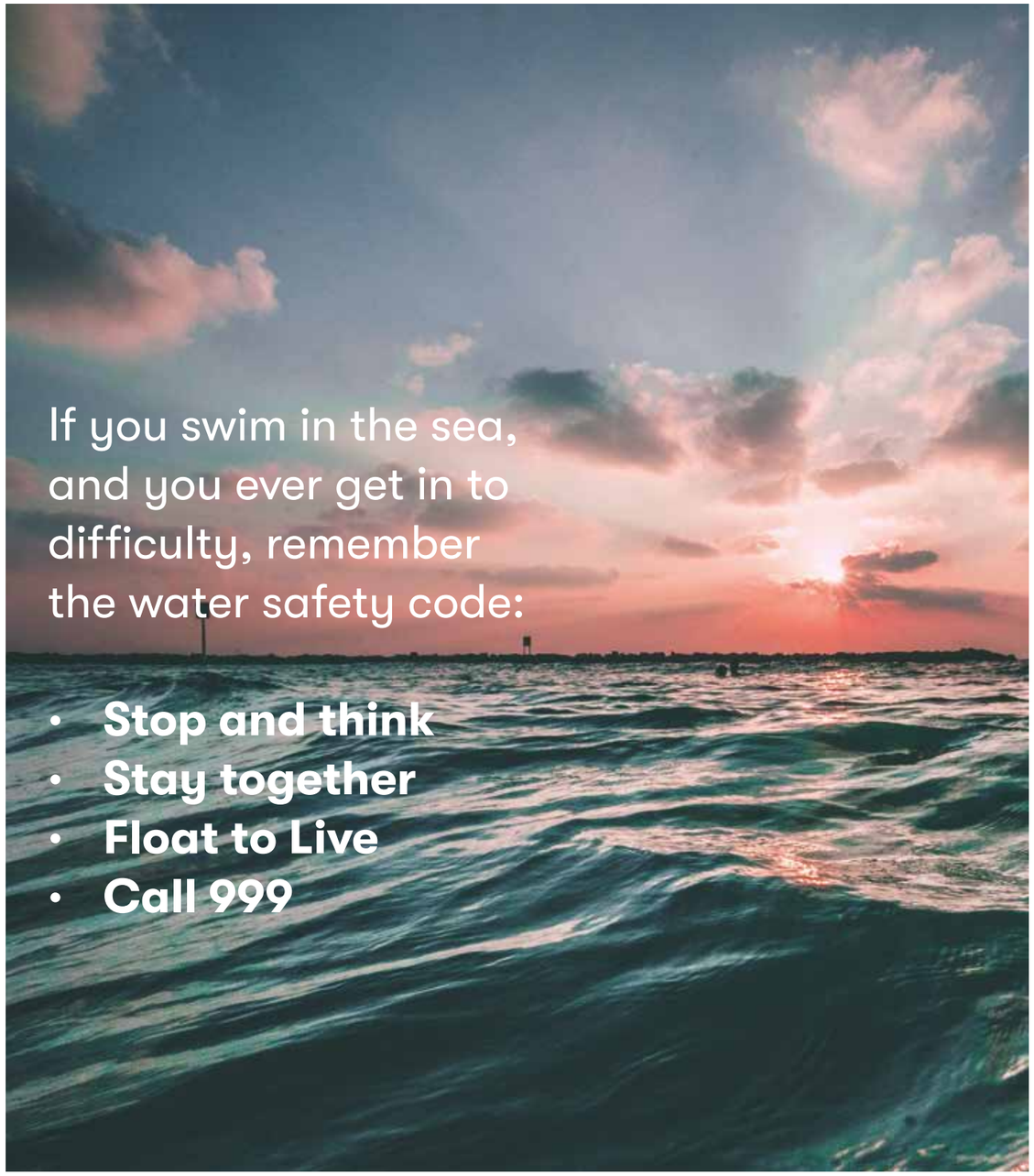
I choose to recycle soft plastics, I use natural shampoo, and reusable period products. We know that so many plastic period products end up in the sea, so this is an important choice that I can make to make sure I'm not adding more pollution to the sea. I also do beach cleans and when I'm out with the RNLI on exercises in our powerboats, we'll stop to collect any rubbish that we see in the sea. I'm passionate about this because I want to keep the sea as a healthy environment for us all to enjoy.

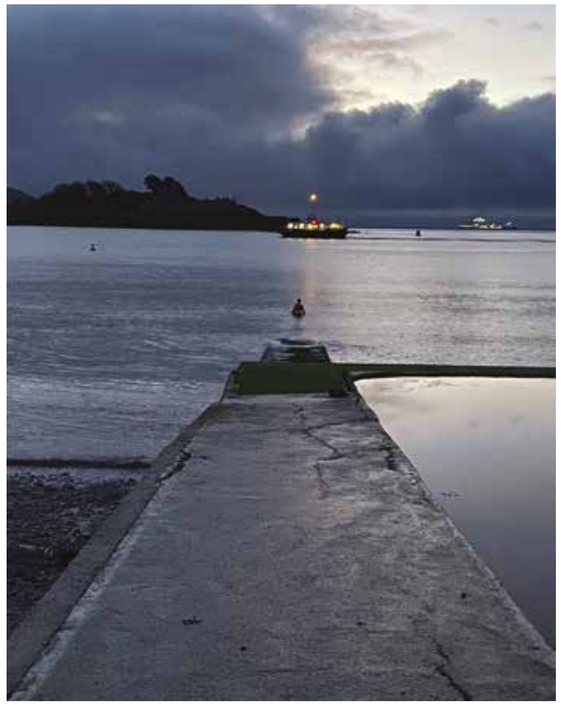
What are the two most important '21st Century Skills' skills that you use?
Critical thinking: Through my work, I see lots of barriers preventing people and communities from being able to swim, and to swim in open water environments like the National Marine Park. I use critical thinking and problem solving skills to think about how to overcome these barriers and create programmes and activities that do this.

Collaboration: To help people and communities to overcome barriers to swimming, you have to listen to their perspective and built a trusting relationship. We may not create a solution that works for everyone first time around, but working together over time helps us to find sustainable opportunities.

Swimmer

Name: **Beth Barratt**
Job: **Swimmer in the National Marine Park and Project Lead for Swim England**





Find out more about water safety here:
rlss.org.uk/the-water-safety-code

rnli.org/safety/beach-safety

Adventurer

Name: **James Scott**
Relationship with the sea: **Adventurer**

How do you interact with Plymouth's National Marine Park?
I'm originally from London but I learnt to sail when I was a kid here on Plymouth Sound, which is now the National Marine Park. Boats and the sea have been a part of my life ever since. So although when I started working I was an electrician and worked to put on events in London, I would sail at weekends and on holiday, often down here in Plymouth. Sailing and loving to be in and on the water has taken me on some amazing adventures too. I've sailed all over the world – in America, the Caribbean, Australia, and even been on a boat to Antarctica. I also rowed around the whole of Britain with a group of five other people – in total there were three men and three women. It took us 43 days which set a new world record for the first non-stop and unassisted row around Britain as a mixed team. Plymouth's National Marine Park is connected by the water to all of the amazing places that I've been, and your own adventure can start right here in Plymouth too.

How do you help to protect the National Marine Park?
I've seen first-hand the damage that pollution can do to water environments – in the middle of the ocean there are huge collections of rubbish that I've had to sail through. So protecting that National Marine Park and the wider ocean environment is really important to me. Everything we do at home on the land is connected to the sea, so I'm really careful not to create more waste and not to put things down the sink if I don't want them to end up in the sea. This includes being careful to only use washing liquid and other cleaning products if I really have to, and also telling others about the connection between the land and sea too.

What are the two most important '21st Century Skills' skills that you use?
Collaboration: When you're on a boat, it's always a team effort. The best adventures are only possible when lots of people come together to make something happen, and the best adventures I've been on are with other people. When you collaborate to work towards a goal, you also get to share the outcome and achievement too.

Creativity: There's so much creativity involved when you go on adventures. Even coming up with the idea to do something, that maybe no one has ever done before – it all involves creativity to be able to imagine something new and think outside the box. Then when you're on an adventure, things often don't go to plan and you quickly have to come up with new ideas. There are so many possibilities out there – the only limit is your imagination.

Adventurer

Name: **James Scott**
Relationship with the sea: **Adventurer**

You can start your own sailing adventure right here in Plymouth, even if you've never been on the water before. Try The Island Trust or The Mouthbatten Centre to get started:

theislandtrust.org.uk

mount-batten-centre.com

Photo taken from the top of a 120 foot mast while crossing the Atlantic.

Ideas for Activities

Visit: Take a trip to the National Marine Park

Work out how to get to Plymouth's National Marine Park from your school or your home using the internet. You could use Plymouth City Bus's website to plan your journey: Plymouth Bus - Buses across Plymouth and the surrounding area. You could draw a map of how to get there.

See how many different people you can see using the National Marine Park. Can you categorise them into different groups? For example 'people playing in the Marine Park', 'people working in the Marine Park' etc.

Research: Find out more about the global impacts of climate change

Can you find out more about the global impacts of climate change? Research how climate change is impacting the world, and how different people are working to reach Net-Zero by 2050. The create a presentation about what you've found out.

You can use the internet to help you.

For primary school:
What is climate change? - KS2 - The Regenerators - BBC Bitesize

or search
BBC bitesize climate change KS2

For secondary school:
Climate change and global warming - Climate change - AQA - GCSE Geography Revision - AQA - BBC Bitesize

or search
BBC bitesize climate change GCSE

Ideas for Activities

Create: Make your own page about how you can help the National Marine Park

Think about the four questions below, and then design your own card with your responses. You could also use the questions to interview friends to find out their answers, or try working in pairs to identify each other's best skills.

1. How do you or would you like to interact with Plymouth's National Marine Park?
2. How could you help to protect the National Marine Park?
3. Think of one example for how you have each '21st Century Skill', for example 'Communication – I like talking about my ideas with my friends'.
   - Collaboration and working together
   - Communications
   - Problem solving
   - Creativity
4. How could you use these skills to help protect the National Marine Park?

Pledge: Act for the environment today

Find out what 'Net-Zero' means, and the global target to reach net-zero by 2050.

Try the United National for a global view: Net Zero Coalition | United Nations
Or Devon Climate Emergency for a local perspective: devonclimateemergency.org.uk

Work out how old you will be in 2050 – the date of the aim to reach Net-Zero.

What action could you take today to help to reach that target?

Write this action as a 'Pledge' on a card, post-it, luggage tag or picture. Create a full-class display of your pledges.

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theboxplymouth.com

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