Primary Education Document

Bristol Aquarium's Educational Aim

We are focussed to provide an educational programme aimed at equipping children with scientific biological facts about our animals, key features of the natural environment through discussion of habitats as well as implications for the environment through delivering key conservation messages.

Aquarium Guided Tour Package

The tour begins by meeting your personal guide at your allocated tour time

Tour times available (duration approx. 1hr 15 mins):

10:20, 10:40, 11:00, 11:20, 11:40, and 12:00

The first half of your tour at Bristol Aquarium will focus on cold freshwater and marine crustaceans and fish including our native section with animals that may be spotted around our very own British coastlines.

The first half concludes with your group participating in a hands-on, interactive workshop for an up-close encounter with some interesting objects and artefacts.

The second half of the tour focuses on tropical freshwater and marine fish from rivers and oceans far and wide including the Amazon Rainforest and the Coral Reefs.

At the conclusion of your guided tour you are welcome to enjoy your lunch in the foyer with space that we will set aside for you on the day. After lunch, there will be an opportunity to re-enter the aquarium to engage with the information provided on signage or visit our talks and feeding programmes throughout the day to build upon the knowledge gained during your tour.

Self-Led Tour

A self-led tour will be facilitated by your teaching staff and will involve your team taking your class through the displays. There will be opportunities to learn all about our animals and environments through reading the signage provided and we encourage visiting our talks and feeding programmes throughout the day for an exciting experience learning about our animals and what they eat!

Once a booking has been made, we offer a free pre-visit for up to two teachers to visit us before their trip to familiarise themselves with the layout of the aquarium and to plan any extra activities or worksheets to compliment a self-led visit.

The National Curriculum and Bristol Aquarium

The national curriculum for science aims to ensure that all pupils develop scientific knowledge and conceptual understanding through biology, chemistry and physics.

Bristol Aquarium is able to encourage the understanding of nature, natural processes and methods of science through participating in our developed guided tour and workshop package (at an additional cost) in addition to engaging with factual information provided on our signage boards around the aquarium and through visiting our expert-led talks and feeding programmes.

Guided tour packages include factual information about our animals including biological information, information about the environment as well as conservation issues. We encourage children to engage with and ask their tour guide questions along the way to be able to develop their own understanding of the world around them.

Bristol Aquarium is the UK's only aquarium to feature a giant botanical house and so not only can we provide the opportunity to learn more about undersea life but also about plants too!

Key Stage 1

For our Key Stage 1 children we offer the opportunity to observe nature close up. The themed areas of Bristol Aquarium provides the opportunity to classify living animals according to the way that they look and the environments they live in e.g. Marine/Freshwater, Cold/Tropical, Fish/Crustaceans.

If you are taking part in our Safari Guided Tour package children should be encouraged to ask their personal tour guide questions about our animals and the living world during their tour. Simple scientific language will be used throughout the tour to ensure the children understand what is presented to them. First-hand experiences will be provided through the use of interactive workshops with the opportunity to handle shark teeth, shark jaws and crustacean moults.

Year 1 Topic: Animals, including humans

A trip to Bristol Aquarium will enable children to identify and name a variety of fish. We only have a couple of reptiles and amphibians on display and so a guided tour would focus on fish.

Children will also be able to identify animals that are carnivores such as our octopuses and sharks, omnivores such as turtles and catfish, and herbivores such as surgeonfish and parrotfish which primarily graze on algae.

Children will be able to compare the different structures of fish and invertebrates and how different animals look from each other – think about seahorses, lobsters, sharks, octopuses and clownfish as examples.

Year 2 Topic: Living things and their habitats

In year 2, children will be introduced to the term 'habitat' to describe the natural environment as a home for living things. Bristol Aquarium aims to provide as natural an environment for our animals as possible which includes providing the right water temperature, water qualities, plant life, substrates and tank mates! During a visit to Bristol Aquarium children will be able to identify that our animals live in environments that are suited to them and provide them with the basic needs for their survival. Children will be able to identify that the environment that our fish live in is different when comparing the water to other habitats.

Year 2 Topic: Animals, including humans

As children begin to learn about the needs of animals we start to introduce the topic of reproduction and growth in animals without expecting them to understand how reproduction occurs.

Bristol Aquarium is home to a number of successful breeding programmes with exhibits that clearly show the different life stages of animals. Our successful Big Bellied Seahorse programme has lead to the creation of the 'Seahorse Nursery' where we showcase our newest arrivals, a display with juvenile seahorses and our 'Seahorse Lighthouse' which houses our breeding adults. It is also interesting to note that it is the male seahorse that cares for the young.

Children will also be able to see our Lesser Spotted Catsharks (also known as Dogfish) in their different life stages from juvenile to adult. We have dried shark egg cases also known as Mermaid's Purses which can be used as a visual tool to exhibit how sharks begin their life cycle.

Depending on timing you may even see our phantasmal frogs and their tadpoles!

Key Stage 2

At Key Stage 2, children are beginning to raise questions about the world around them and can gather information to help them answer these questions. Children will begin being introduced to methods of data collection and presenting data in charts and tables

Year 3 Topic: Animals, including humans

In year 3, children are taught to identify that animals need the right types and amount of nutrition gained from what they eat. Bristol Aquarium provides at least 4 daily talks and feeding programmes throughout the day and Year 3 children studying nutrition would be encouraged to attend and learn more about what our creatures eat. After our talks there are opportunities for asking questions which is also encouraged.

Currently we offer (subject to change):

11:30 Coral Reef Talk & Feed – Learn more about our tropical fish and what they like to eat

13:00 Bay of Rays Talk & Feed – Learn more about our Common Stingray, rays and fish and watch as these graceful fish get their lunch

14:30 Seahorse Talk & Feed (Monday, Wednesday, Friday, Sunday)

14:30 Amazon River Talk & Feed (Tuesday, Thursday, Saturday)

15:30 Native Fish Talk & Feed (Monday, Wednesday, Friday)

15:30 Shark Talk & Feed (Tuesday, Thursday, Saturday, Sunday)

Year 3 children will also begin to understand that some animals have skeletons and muscles for support, protection and movement. The Shark Workshop which is part of the Safari Guided Tour package contains an interactive opportunity for children to hold sharks teeth, jaws, skin as well as crustacean moults. There will then be an opportunity for children to ask questions about these internal and external skeletal structures.

The Learning Lab is also home to a range of moults, skeletons and specimens on display which will provide a popular discussion point.

Some of our creatures such as octopuses and starfish don't have any skeletons at all and this would provide an opportunity to classify the differences between invertebrates and vertebrates and how muscles provide their bodies with support.

Year 4 Topic: Living things and their habitats

At Year 4, children are able to recognise that living things can be grouped and classified. Children will be able to distinguish the differences between fish, amphibians, reptiles, birds and mammals as well as invertebrates. Bristol Aquarium is home to a wide range of animals including fish (including sharks and rays), reptiles, amphibians and invertebrates (tarantula, octopus, starfish).

As the UK's only aquarium to feature a giant botanical house there is also the opportunity to identify the differences between flowering and non-flowering plants such as ferns. Whilst we do not currently cover plant-life in our guided tour, there is an opportunity after lunch to be able to re-enter the aquarium to inspect our plant life more to help with your classification.

Children will begin to explore human impact on environments including damage from litter, plastic pollution and deforestation. We have developed a 'sandpit search' activity which can be included in place of the Shark Workshop on the guided tour and the sandpit search explores items that may be found on the beach and what is natural and what is not natural and can be harmful. The game can then be used to initiate discussion about human impacts on the environment.

In Year 4, children will also be looking at the digestive systems of animals including the mouth, teeth, stomach and intestines. Bristol Aquarium is home to a range of herbivores and carnivores and so we can provide you with the opportunity to see these animals up-close to classify them into categories based on their digestive systems.

Food chains may also be explored during Year 4 and there are opportunities to identify which creatures may be predators, prey and producers (e.g. sharks, plants, turtles etc.)

Year 5 Topic: Living things and their habitats

As scientific knowledge grows and forms, we start to explore the more in-depth systems and processes in living things. In Year 5, children will begin to describe life cycles of animals and the processes of reproduction.

Bristol Aquarium is home to a number of successful breeding programmes with exhibits that clearly show the different life stages of animals. Our successful Big Bellied Seahorse programme has lead to the creation of the 'Seahorse Nursery' where we showcase our newest arrivals, a display with juvenile seahorses and our 'Seahorse Lighthouse' which houses our breeding adults. It is also interesting to note that it is the male seahorse that cares for the young.

Children will also be able to see our Lesser Spotted Catsharks (also known as Dogfish) in their different life stages from juvenile to adult. We have dried shark egg cases also known as Mermaid's Purses which can be used as a visual tool to exhibit how sharks begin their life cycle during a hands-on workshop included in our guided tours.

Depending on timing you may even see our frogs and their tadpoles!

As the UK's only aquarium to feature a giant botanical house there is also an opportunity to work scientifically by observing the differences between plants and animals in their reproduction and growth.

Year 6 Topic: Animals including humans

In Year 6, children will be building upon the knowledge and themes from previous years and may learn about animal circulatory systems. Children may explore the biological processes of animals in more detail noting differences between organisms (did you know that octopuses have 3 hearts and blue blood?!). You will have the opportunity to explore how different our animals are from each other.

Year 6 Topic: Evolution and Inheritance

After exploring the topics of fossils and rocks, children in Year 6 will have an understanding that living things change over time.

Bristol Aquarium is home to a few evolutionary wonders including our Blind Cave Fish which, through natural selective pressures, have lost visible eye organs as they are not useful in their pitch-black undersea cave environments.

Other discussion points may relate to how fish have moved from the oceans to land and how animals such as sharks have developed characteristics such as streamlined bodies to help them swim better through the water and how rays are a flattened shape to help them camouflage against the bottom of the water. Some creatures such as the jellyfish and sharks have remained relatively unchanged for millions of years and this can also be a talking point on how adaptations can be so beneficial that they remain constant across generations.