

**Session type:** Workshop  
**Duration:** 60 minutes  
**Key Stage:** KS1

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### **Session Overview**

The Ocean Investigation workshop is all about getting hands on and discovering the world beneath the waves. Your children will have the opportunity to handle artefacts from our extensive specimen collections, which can include starfish, turtles, shark jaws, seashells, whale baleen plates and much more. Working in small groups, your children will investigate the artefacts by moving around five different skill-based stations. Pupils will identify features, textures and patterns, make comparisons and sort artefacts into groups; match animals to their habitats and geographical locations; measure and weigh artefacts and identify the marine animal they came from; create their own observational drawings; and make connections between the artefacts to build marine food chains.

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### **Learning Objectives**

1. Look at and compare different animals
2. Think about where sea creatures live
3. Learn about what animals eat in the sea

### **Learning Outcomes**

1. Identify different parts of a marine food chain
  2. Recognise the importance of scientific method
  3. Investigate differences and similarities between marine animals
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### **Pre-Visit Suggestions**

- Create land-based food chains and food webs, learning about the connections between predators, omnivores and herbivores
- Have a class discussion about going to the beach, rock pooling and finding shells and other marine objects, e.g. crabs, sea snails, fish bones, seaweed. Talk about how they felt, textures and colours, then draw them from memory
- Talk about the difference between vertebrates and invertebrates
- Learn about marine habitats such as coral reefs, rock pools and seagrass

### **Post-Visit Suggestions**

- Try creating five different posters of the five vertebrate groups using pictures from magazines
  - Create a simple dichotomous key using the creatures you will learn about in the workshop (and more if you like). You could use simple groupings, such as vertebrate/ invertebrate, size, habitat or number of legs
  - Use your adjective labels to create opposite pairs for a wall display at school
  - Practice your new investigative skills by visiting the coast and going rock pooling or beach combing
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**To book, or for more information:**

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[www.national-aquarium.co.uk](http://www.national-aquarium.co.uk)

**English: National Curriculum Links**

**English:**

**1. 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

**2. Key Stage 1: Word reading**

- a) Apply phonic knowledge and skills as the route to decode words [Y1]

**Mathematics:**

**3. Key Stage 1: Number**

- a) Compare, describe and solve practical problems for:
  - Lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] [Y1]
  - Mass/weight [for example, heavy/light, heavier than, lighter than] [Y1]

**4. Key Stage 1: Measurement**

- a) Measure and begin to record the following:
  - Lengths and heights [Y1]
  - Mass/weight [Y1]

**Science:**

**5. Key Stage 1: Working Scientifically**

- a) Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment
- 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

**6. Key Stage 1: Animals, including humans**

- a) Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals [Y1]
- b) Identify and name a variety of common animals that are carnivores, herbivores and omnivores [Y1]
- c) Describe and compare the structure of a variety of common animals [Y1]

**7. Key Stage 1: 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 and name a variety of plants and animals in their habitats, including micro-habitats [Y2]
- c) 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 [Y2]

**Art and Design:**

**8. Key Stage 1:**

- a) To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space

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**Welsh: National Curriculum Links**

**1. Skills across the Curriculum**

- a) Developing thinking
- b) Developing communication

**Personal and Social Development, Wellbeing and Cultural Diversity:**

**2. Skills:** Personal development

- a) Show curiosity and develop positive attitudes to new experiences and learning

**Language, Literacy and Communication Skills:**

**Strand:** Oracy

**3. Element:** Developing and presenting information and ideas

- a) Speaking
- b) Listening
- c) Collaboration and discussion

**Strand:** Reading

**4. Element:** Locating, selecting and using information

- a) Reading strategies
- b) Comprehension
- c) Response and analysis

**Mathematical Development:**

**Strand:** Using number skills

**5. Element:** Using number facts and relationships

- a) Compare and order 2-digit numbers

**Strand:** Using measuring skills

**6. Element:** Length, weight/mass, capacity

- a) Use standard units to measure: – length, height and distance: metres, half metres or centimetres – weight/mass: kilograms or 10-gram weights – capacity: litres
- b) Use symbols related to length, weight/mass and capacity

**Strand:** Using data skills

**7. Element:** Collect and record data

- a) Sort and classify objects using more than two criterion

**Knowledge and Understanding of the World**

**8. Range:** Myself and other living things

- a) Observe differences between animals and plants, different animals, and different plants in order to group them
- b) Learn about the senses that humans and other animals have and use to enable them to be aware of the world around them
- c) Identify some animals and plants that live in the outdoor environment

**Creative Development**

**9. Range:** Art, craft and design

- a) Develop and use their understanding of colour, line, tone, texture, pattern, shape and form

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**Ocean Literacy Principles**

The Ocean Literacy Principles are international standards of education. The following Principles are achieved through this workshop

- 1) The Earth has one big ocean with many features
- 2) The ocean and life in the ocean shape the features of Earth
- 3) The ocean is a major influence on weather and climate
- 4) The ocean makes Earth habitable
- 5) The ocean supports a great diversity of life and ecosystems
- 6) The ocean and humans inextricably interconnected
- 7) The ocean is largely unexplored

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To find out more, please visit our website: <http://www.national-aquarium.co.uk/education/lessonideas/>.

**NMA Generic Learning Outcomes**

The Generic Learning Outcomes are a collection of conservation guiding principles that the NMA aim to achieve in all aspects of our work. The following GLOs are achieved through this workshop:

**1). Knowledge & Understanding**

- a) Broaden knowledge of the marine environment and associated species.
- b) Deeper understanding of the relationship between myself and the seas.
- c) Raise awareness of the role that science plays in understanding our seas.

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**2). Skills**

- a) Develop observation skills.
- b) Formulate scientific questions based on observations.
- c) Develop communication (speaking and listening) and social (learning together, working together, meeting people) skills.

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**3) Attitudes & Values**

- a) Appreciate the value of the marine environment and develop respect and empathy for its inhabitants.
- b) Promote a positive view of science and scientists.
- c) Recognise that learning can be a positive process.

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**4) Enjoyment, Inspiration, Creativity**

- a) Have fun with the National Marine Aquarium.
- b) Be surprised by the variety of marine life.
- c) Be inspired by the experience.

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**5) Activity Behaviour and Progression**

- a) Motivation to go out and explore the marine environment further.
- b) Take steps to further understanding of the relationship between myself, my actions and the sea.
- c) Take action to reduce my negative impacts & increase my positive impacts on the marine environment.

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To find out more, please visit our website: <http://www.national-aquarium.co.uk/marine-conservation/>.

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