

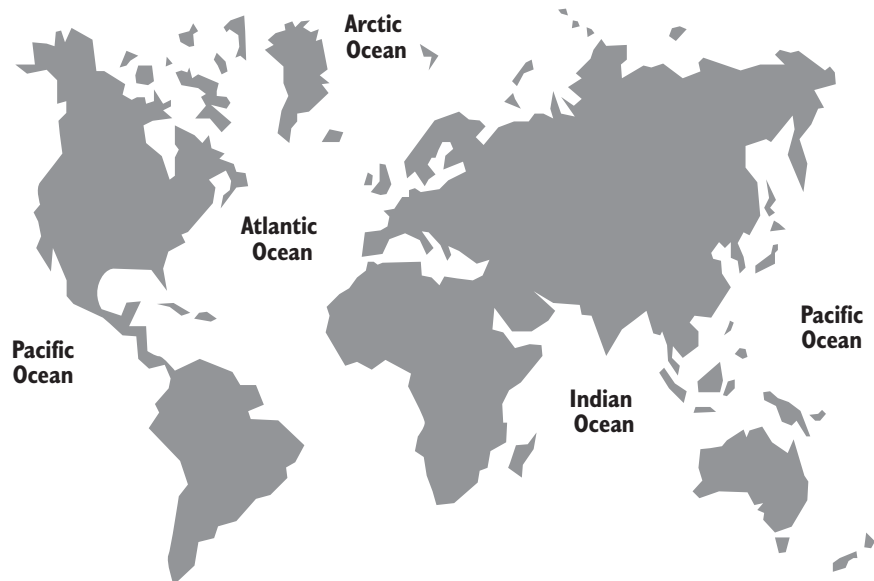
# Sea Life!

## PUPIL FACTSHEET

### First things first - what is sea life? In other words, what lives in the sea?

Seventy-one percent of the earth's surface is covered by oceans and seas, so water dominates our planet. But what exactly can we find in the sea and how can we group different kinds of sea life?

- Vertebrates (animals that have a backbone like fish)
- Invertebrates (animals without backbones)
- Sea Mammals
- Sea Reptiles
- Birds
- Plants



### Sea stats

The sea was home to the first life on earth. Fish have been living in the sea for millions of years.

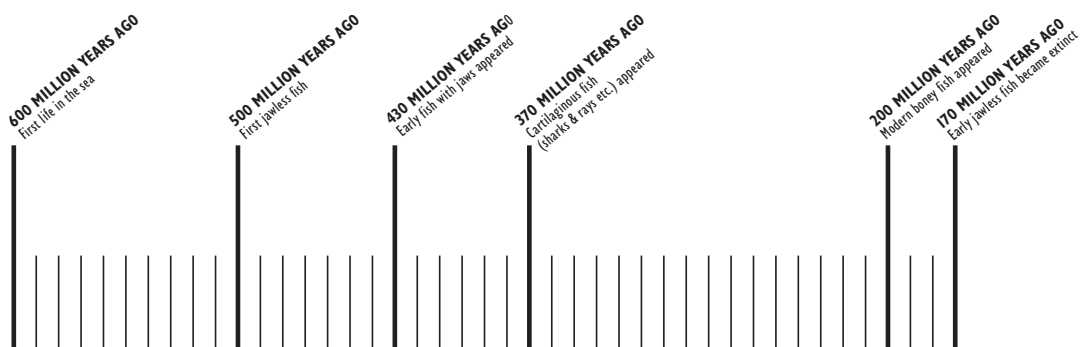
Seen from above, the world's oceans seem empty and unchanging, but beneath the surface hides a very special world where water takes the place of air. An amazing mix of plants and animals live in these waters, from tiny plankton to the giant blue whale, the largest mammal on earth.

The world's four great oceans are the Pacific, the Atlantic, the Indian and the Arctic. The Pacific Ocean is the largest and deepest. It covers more of the world's surface than all the continents put together.

### Fish (vertebrates)

There are around 25,000 different species of fish in the world. Six species account for more than half the 70 billion kg of fish caught for food every year around the world. That makes eight fish meals a day for every single person in Britain.

### Here are some big dates in the history of fish



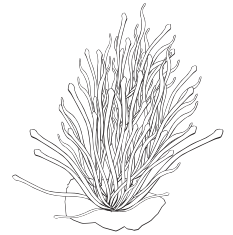
# Sea Life! (continued 1)

## PUPIL FACTSHEET

### Invertebrates

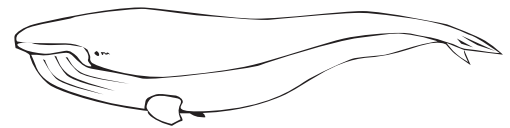
**Most of the animals that live in the sea have no skeleton at all:**

- Molluscs have soft bodies and grow shells around themselves for protection. Some live on the seashore. Others live in the sea, but you might find their empty shells washed up on the shore. Limpets, winkles, mussels and whelks are all molluscs
- Other molluscs - like octopus, cuttlefish, squid and sea slugs - have no shells to protect their soft bodies
- Crustaceans - nature's hard cases. Crabs, lobsters, prawns and shrimps are members of another group of animals that have soft bodies and hard shells. The world's largest crustacean, the giant Japanese spider crab, can grow to an astonishing 3 metres
- Sea anemones, sponges and corals are animals, although they look like delicate flowers. They are fairly common on rocks, but may be hidden. The so-called coelenterated group also includes jellyfish
- Spiny-skinned animals. Starfish, sea urchins, sea potatoes and sea cucumbers all have rows of suckers which they use for pulling themselves along and for holding onto rocks. Most starfish have five arms, but the sunstar has up to thirteen



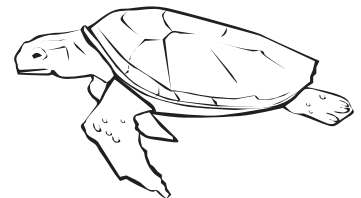
### Sea mammals

Like you, they are warm-blooded animals that were born alive (ie, they did not hatch from an egg) and probably fed on their mother's milk as a baby. Whales, dolphins and seals are sea mammals, as are Birmingham Sea Life cheekiest residents, the otters Tom, Jerry and Larry.



### Sea reptiles

Sea reptiles are cold-blooded animals found in the world's warmer seas. They lay their eggs on sandy beaches. The two massive sea turtles at Sea Life Birmingham are part of a tropical species from Hawaii. They moved to live in Brum when they got too big for the Blackpool Tower Aquarium!

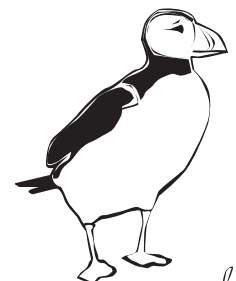


Sea turtles' long, paddle-like flippers are perfect for the water. Sea turtles are strong swimmers and divers. Green sea turtles can stay under water as long as five hours! To conserve oxygen, their hearts can slow to one beat every nine minutes.

### Birds

Seagulls, gannets, puffins, shags and razorbills are just some of the many birds that are found near the sea, nesting in rocky cliffs or ledges. Some eat fish and others eat molluscs. The great black-backed gull kills and eats other seabirds.

Penguins are special marine birds adapted to living at sea. Some species spend as much as 75% of their lives in the sea. Penguin wings are paddle-like flippers used for swimming, not flying.



### Plants

Seaweed is a plant, just like a tree, a flower, or grass. Most seaweeds grow near the surface of the sea and like other plants, they use sunlight to make their food.

One cubic centimetre of sea water contains more than 1,000 microscopic plants. The sea's smallest plants are called phytoplankton. Floating alongside them and feeding upon them are tiny animals called zooplankton. This is the beginning of the marine food chain.



# Sea Life!

## PUPIL WORKSHEET

There are lots of words that come up time and time again when you are reading about sea life. Some of them will be new to you and some of them will look quite big - but do not worry, most of them have pretty easy meanings.

**Phytoplankton**, for example, is a big word for something that is very, very small.

- Phytoplankton - tiny, floating plants that grow wherever sunlight shines on the water. Huge amounts of phytoplankton float near the surface of the sea, but they are far too small to see without a magnifying glass.

Before diving headfirst into the amazing world beneath the sea, use library books, magazines, encyclopedias or the Internet to find out what some of the words below mean.

When you have finished, read your descriptions to the rest of your class.

If you are planning a visit to a Sea Life Centre, these words will help you describe what you have seen afterwards.

<b>Algae</b>	<b>Habitat</b>	<b>Reptile</b>
<b>Amphibians</b>	<b>Invertebrate</b>	<b>Scales</b>
<b>Anadromous</b>	<b>Mammals</b>	<b>School of fishes</b>
<b>Bladder</b>	<b>Marine</b>	<b>Snout</b>
<b>Breed</b>	<b>Mate</b>	<b>Spawn</b>
<b>Camouflage</b>	<b>Microscopic</b>	<b>Species</b>
<b>Catadromous</b>	<b>Photosynthesis</b>	<b>Spine</b>
<b>Coral</b>	<b>Plankton</b>	<b>Tide</b>
<b>Environment</b>	<b>Predator</b>	<b>Vertebrate</b>
<b>Fins</b>	<b>Prey</b>	<b>Zooplankton</b>
<b>Gills</b>	<b>Reef</b>	

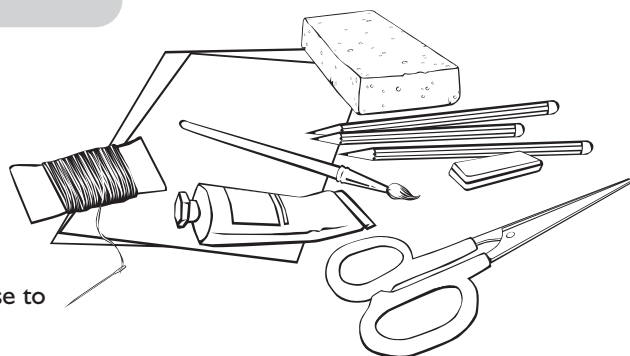
### Key Stage 1 activity

#### Making Pictures of Fish

Start collecting bits and pieces to make wonderful and colourful pictures of all the fish you will find out about during your Sea Life projects or visit.

Here are just some of the everyday objects that you can use to make pictures;

Paper and card, wool and felt, burst balloons, bits of old sponge, sequins and beads, silver foil, glitter and paints, used fast food cartons, sponge and fancy sweet wrappers, old bottle tops and straws, empty yogurt pots, old ribbons.



#### Which picture would you like to draw?

#### Why not choose from one of these?

- Underwater Garden
- Sparkling Starfish
- Rockpool
- Swimming Sea Turtle
- Deep in the Ocean
- Jolly Jellyfish
- Tropical Treasures
- Nature's Hard Cases
- Octopus' Big Adventure

Why not start by making a background - the tropical sea or rockpool - then stick your homemade fishes on top as you go along.