

Amazing oceans

Self-guided learning

This guide provides exciting and inspiring information linked to key displays throughout SEA LIFE Michigan to help young children get the most out of their visit. The information will add an extra dimension to the trip and help children to learn more about the animals they see while practicing key skills.

There are also accompanying 'explorer sheets' containing activities. You may wish to print out copies for each child, or for those groups choosing not to use explorer sheets, we have included simple alternative activities that don't require any additional materials.

Contents

Introduction	2
Teacher's map	3
Teacher's notes	4-8
Explorer sheets	9-10

Learning objectives

By completing this tour, children will:

- Learn about a range of marine animals and the differences between them.
- Understand that animals act in different ways and why.
- Be able to talk about how an underwater environment is different from other environments.
- Build self-confidence by trying new things.
- Help develop communication and language skills through listening and speaking.



Introduction



Use the questions on this page to introduce this topic to your group before starting your tour.

Questions:

Where can you find water?

You can find water in lots of places like rivers, ponds and oceans.

Has anyone been to the beach and seen the sea? What was it like?

Seas are really big areas of water in between two pieces of land. A sea can be really deep in the middle and really shallow at the edges.

Does anyone know about any animals that live in the sea?

The sea is home to lots of different animals. Some of the animals are really tiny and others are really big.

They are all different shapes and colors.

There are more types of animals living in the sea than there are living on land. As well as being home to lots of fish, other animals like sea turtles, octopuses and seahorses live in the sea, too.

Can anyone tell me what the biggest animal under the sea is?

The biggest animal under the sea is the Blue Whale. It is much bigger than any other animal on Earth – including the African Elephant (the biggest animal that lives on land).

Today, we are visiting SEA LIFE which is an aquarium. An aquarium is a place where lots of underwater animals live. The animals live in big tanks made of glass that are filled with lots of water.

Let's start our adventure and find out more about life under the sea. We will meet some friends along the way who will tell us more about themselves!



Teacher's map



ROCKPOOL

Visit Area: TOUCHPOOL

A rockpool is a small pool of water found among rocks next to the sea. Lots of different animals live in rockpools, even though it can be a difficult place for them to survive because of the huge waves and hot sun!



Questions:

Who can tell me the names of any of the animals in the rockpool?

Introduce the relevant creatures. These will most likely include: sea stars, urchins and crabs.

All of these animals are very different. Can you tell me which ones have legs?

That's right, the crabs and sea stars have legs but the others don't.

And which ones have a shell?

The crabs, sea stars and urchins all have a hard shell on the outside. They use this to protect themselves from other animals that want to eat them.

Crabs have amazing claws! What do you think they use these claws for?

They use their claws to catch food and protect themselves. Can you all make your hand into a claw shape?

Look at the strange way that a crab moves. Can you walk like a crab?

Because of the way crabs' legs work, they prefer to walk sideways instead of forwards or backwards.

Are any of the animals not moving?

All of the animals in the rockpool are able to move but some, like Sammy the sea star, move very, very slowly. In fact he moves so slowly that you can't even see him moving. Let's all try moving as slowly as possible.

FACT

If a sea star loses one of its arms then the arm will grow back!

FACT

Not all sea stars have 5 arms – the Sun Star can have up to 40!



Touchpool Activity

Children can touch a crab or a sea star at the touchpool under the guidance of a SEA LIFE expert. Ask them to count how many legs each creature has.



Explorer Sheet Activity

Ask the children to draw a picture of a sea star. As a group count the number of arms that the sea star has and ask children to write that number in the box.



CLOWNFISH

Visit Area: CORAL REEF

Clownfish are brightly colored fish that live in warm shallow water. They have a very special friendship with another ocean creature called the anemone that helps to keep it safe.



Questions:

In this display we can find Chloe the clownfish and her friends! Who has seen a clownfish before?

Some children might remember seeing a clownfish in the popular film, *Finding Nemo*.

Do you know where Chloe the clownfish lives?

She lives inside the venomous tentacles of her best friend – Andy the anemone. Andy keeps Chloe safe because other fish can't swim into his venomous tentacles without getting stung.

Normally clownfish and anemones can be found living on a coral reef. Does anyone know what a coral reef is?

Coral reefs look like brightly colored rocks but they are actually groups of animals that live for a very long time.

They are a bit like underwater cities because thousands of amazing animals live there including turtles, sharks, octopuses and lots of fish.

What color is Chloe?

That's right; she is orange and white.

Who would like to sing a song about clownfish?

Okay, sing the words after me...

I'm a Little Clownfish (Sung to the tune of: "I'm a Little Teapot")

I'm a little clownfish, I can swim.

Here's my tail, here are my fins.

When I want to have fun with my friends,

I wiggle my tail and dive right in!

FACT

In the wild clownfish can live for up to 10 years.

FACT

All Clownfish are born as boys.



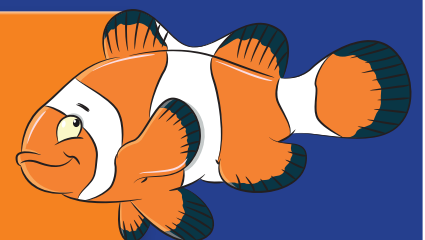
Clownfish Activity

Sing 'I'm a Little Clownfish' with your group.



Explorer Sheet Activity

Ask students to color in the picture of the clownfish on their exploration sheet.



OCTOPUS

Visit Area: SHARK SHIPWRECK

The Octopus is a unique creature with a round body, big eyes and long arms. It lives in seas all around the world and likes to eat crabs, lobsters and shrimp. Octopuses have some clever ways to stay safe from other bigger animals that like to eat them.



Questions:

Can anyone spot the octopus in the display?

He doesn't have any bones so he can squeeze into really tiny spaces. He can get through a gap as small as a coin. Show me how tiny you can make yourself by rolling up into a ball!

How many arms does the octopus have?

Every octopus has 8 arms. They help him to catch food and search in between small gaps in the rocks. His arms also help him to move around or cling to rocks.

He also has another cool way of moving around, do you know what it is?

He can move around by sucking in water and then blowing it out really hard. Let's see how hard we can blow!

Do you think is clever?

Yes, he is very clever. The octopus is one of the most clever animals in the sea. He plays with toys that your dog at home may play with!

Can anyone think of any other ways Ollie can hide from fish that try to eat him?

He can change color to become harder to see and can even squirt ink into the water to make it cloudy. That's amazing!

FACT

An octopus can unscrew jars with its strong arms!

FACT

All octopuses have a venomous bite but hardly any are dangerous to people.



Octopus Activity

Ask the children to sit side-by-side in pairs and move all of their arms and legs in the same way that an octopus does.



Explorer Sheet Activity

Ask the children to trace the outline of the octopus' arms in the picture, counting the number of arms as they do so. Write the total number of arms in the box.



SEAHORSES

Visit Area: SEAHORSE MANGROVE

A seahorse is a tiny fish that lives in warm seas around the world. It has the name 'seahorse' because its head looks a lot like a tiny horse's head. It has a very strong, curly tail that helps it to hold onto things in the sea.



Questions:

Can you see Mia the seahorse and her friends in the display?

Mia and her friends have quite a strange way of swimming that is different to the other fish we have seen today. They swim with their heads up and their tail down instead of with their tail behind them.

If you look very closely can you see Mia's tiny fins that help her swim?

Seahorses can flap their fins 35 times every second. That's very quick! Let's see how quickly we can all flap our arms?

Even though seahorses move their fins very quickly they are still the slowest swimmers in the sea.

Are any of the seahorses using their tail to hold onto anything?

Mia and her friends are so small that they have to cling onto pieces of grass to avoid being swept away by the water.

How many meals do you eat a day? Do you think that's more than a seahorse eats?

Seahorses are very greedy; they can eat up to 50 times a day!

Lots and lots of seahorses are killed every year. How do you think we can help protect Mia and other seahorses?

We must make sure that we don't leave any trash when we go to the beach and never keep seahorses as pets.

FACT

A seahorse can look forward and backwards at the same time!

FACT

A seahorse's body is very bony so most animals don't like to eat them.



Seahorse Activity

Ask the children to name the colors of the different seahorses. What other colors can they see in the display?



Explorer Sheet Activity

Ask the children to look at the color of the seahorses in the display and then color in the image on their explorer sheet accordingly.



SHARKS

Visit Area: OCEAN TUNNEL

There are lots of different types of sharks in oceans around the world. Some live in warm water and others prefer very cold, icy seas. Although sharks can be very big and have sharp teeth, most of them are harmless to humans.



Questions:

Has anyone lost a tooth recently? Did you grow a new one?

Like us, a shark's teeth are very important to him. They aren't able to eat without their teeth so they need them to survive. If one falls out, a new tooth will grow in its place. Did you know a shark can have up to 7 rows of teeth?

Can you see Magnus the shark in the display? Does he look different to how you expected?

Sharks aren't always grey – some are black, blue or even yellow with spots! Some sharks are much smaller than others. Hammerhead Sharks have a strangely shaped head with eyes that are really far apart.

The color of a shark's skin can help it hide. Why might a shark want to hide?

Lots of animals in the sea hide from other animals that might try to eat them. But for lots of sharks,

it's the other way around. They stay hidden until an animal they are trying to catch swims close enough for the shark to attack and eat it. Can you see any sharks hiding in the sand?

What do you think sharks eat?

Most sharks eat meat and fish from the sea. Some sharks even eat other sharks!

Look how big the shark tank is compared to the other tanks, why do you think it is so big?

Sharks like the Blacktip Reef Shark have to keep swimming all the time to survive. This means that they need lots of space to move around in.

FACT

Baby sharks are called pups.

FACT

Sharks existed before the dinosaurs.

FACT

Sharks don't have any bones.



Shark Activity

Ask the children to show you their teeth. Are they as big as a shark's teeth? Ask them to open their jaws as wide as they can. Explain that sharks have the strongest jaws on the planet.



Explorer Sheet Activity

Look closely at the sharp, pointy teeth of a Blacktip Reef Shark in the display. Ask the children to draw some teeth in the mouth of the shark on their explorer sheet.



Find out about amazing oceans

Rockpool

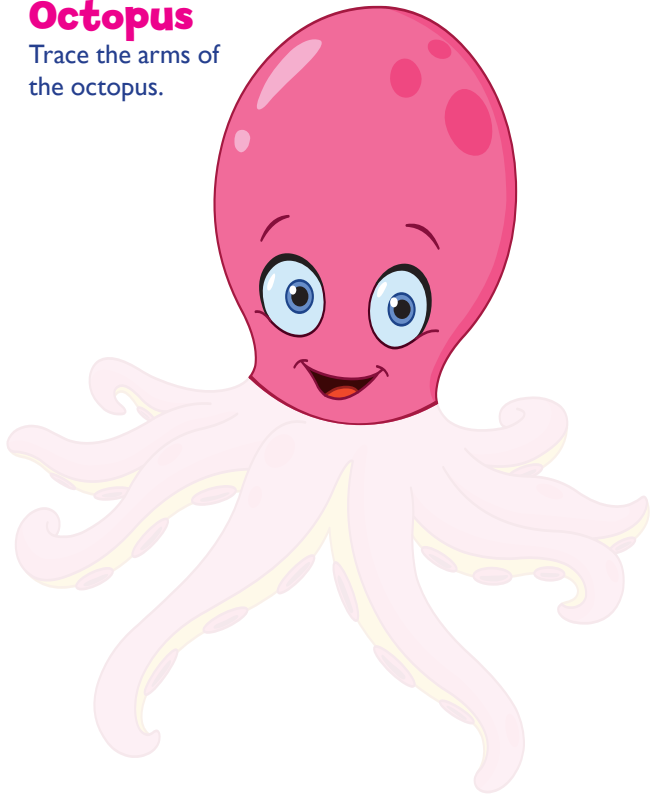
Can you draw a sea star like me?



Write how many arms a sea star has common answer: 5

Octopus

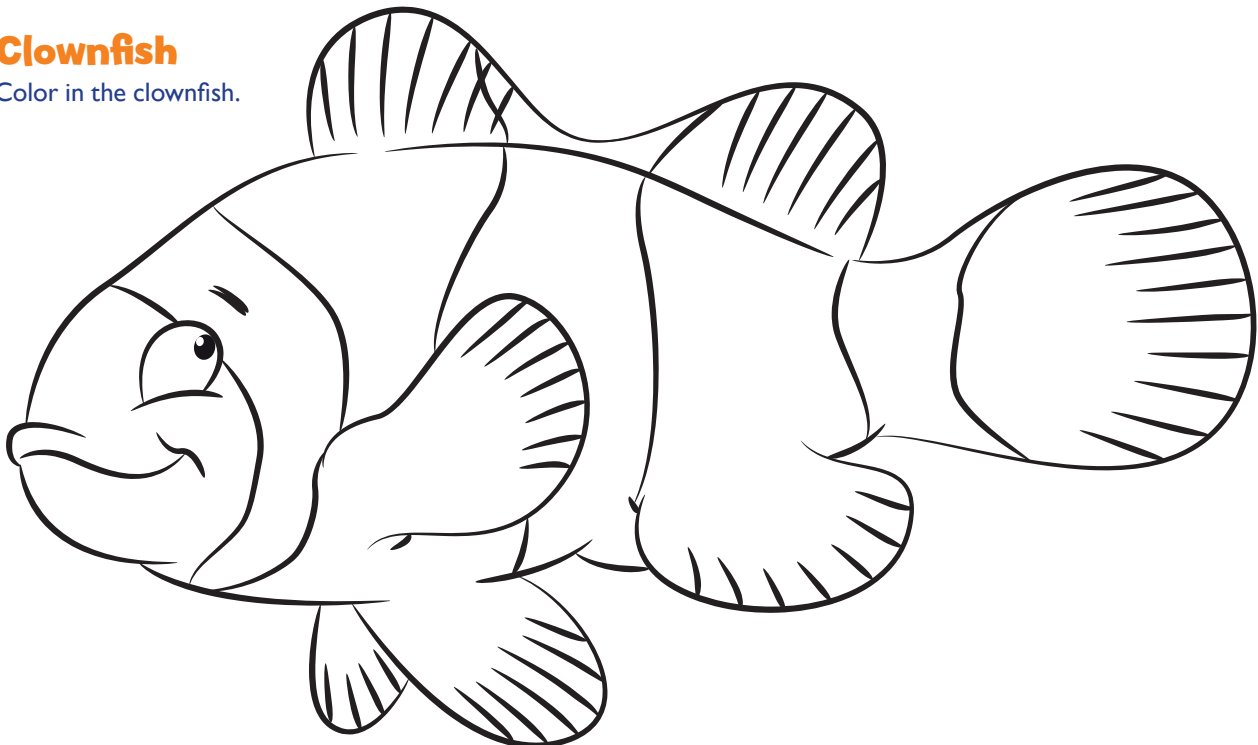
Trace the arms of the octopus.



Write how many legs an octopus has 8

Clownfish

Color in the clownfish.



Name: _____

Find out about Amazing oceans

Seahorses



Color in the picture of me.



Sea Turtles

SEA
TURTLE

Hi, I'm Tyler the Sea Turtle.



Trace the first two letters above to spell "Sea Turtle".

Sharks

Can you draw some teeth in my mouth below?

