

Ocean habitats

Sustainability Goals:



Subject links:

Science, Geography, Art, ICT

Age: 5-7

Curriculum links:

UK wildlife, Biodiversity, Habitats, Creativity, Digital skills

Ocean Literacy Principles:

5. The ocean supports a great diversity of life and ecosystems.

Learning Objectives:

- To understand what organisms need to survive
- To define the term habitat and microhabitat
- To name ocean habitats and describe conditions of each habitat
- To identify a variety of ocean animals

Resources provided:

- Ocean habitats Fact File
- Habitat illustrations
- Creature cards
- Ocean habitats worksheet
- Curriculum links

Extra resources required:

Computers, books, colouring pencils

Step 1

Background

The ocean covers 70% of the earth's surface and is home to 50-80% of all life on earth. UK coastal waters are home to a wide range of marine habitats and species. More information can be found in the [Ocean habitats Fact File](#).

Step 2

Set the Scene

5 minutes

Describe the term 'habitat' to students as the natural home or environment in which an animal or plant lives. A habitat contains all an organism needs to survive, such as food and shelter. Connect this to a species students will be familiar with, for example, birds living in woods for shelter and finding insects to eat. Define a 'microhabitat' as a small area within a larger habitat, for example, a bird's nest within a wood.

Step 3

Activities

Activity 1: 15 minutes – Where do I live?

Introduce the different ocean habitats by showing the [habitat illustrations](#) on your whiteboard and using notes in the [fact file](#). Point out the non-living elements of the habitat, like rocks or mud, and the living elements, such as plants and seaweed. Print the illustrations out and place them

Step 3

Activities (continued)

around the classroom. Hand out a [creature card](#) to each child. Students should wander around the room looking at each habitat and consider whether their creature would live in that habitat. Once they have looked at all the habitats, they should determine which habitat their creature is best suited to and stand next to that image. Check students have chosen the correct habitats and ask them to explain their reasoning for choosing it.

Activity 2: 10 minutes – What other creatures live there?

As a class, go through each habitat one by one and ask each student to describe what the creature on their card looks like. Ask if anyone can guess the name of the creature from the description. Students should then reveal their creature's name. Share a fact about the creature using notes in the [fact file](#).

Activity 3: 30 minutes – What is my habitat like?

Students should use the [ocean habitat worksheet](#) to draw a picture of the habitat their creature is associated with. They should also draw and annotate the other creatures that live there. Students should describe the conditions of this habitat and think about possible microhabitats for the creatures living there.

Step 4

Extend

1 hour – Creature profile

Students could create a creature fact file about their species or another marine species. The fact files could include information about what the creature looks like, what habitat they live in, where in the world they are found and what they eat. Students could use books and the internet to find out information for their fact files and produce them by hand or using a computer.

Step 5

Reflect

Name an ocean habitat and describe what it looks like. Name a creature that lives in the ocean and the habitat it lives in. Name a creature that lives in the ocean and share a fact about it.

Step 6

Follow up

To explore the relationship between marine creatures and their environment in more detail, complete our [What is a food chain?](#) lesson. To discover more marine creatures and study their similarities and differences, complete our [Grouping animals](#) lesson.

Ocean habitats Fact File



UK ocean habitats and wildlife

Saltmarshes

Saltmarshes are tidal habitats found along sheltered coastlines. Saltmarshes are very muddy, making them a great home for worms, and a great place for birds to feed.

Saltmarsh species include:



© Dronegraphica



Lugworms live underground in a U-shaped burrow. They make their burrow by eating sand and mud and pooing it out. They're a favourite food for many birds.



Curlews are famous for their long, curved beak. They are named after the 'cur-lee' sound they make. The number of curlews has reduced and they are at risk of extinction.



Mud shrimp live underground in a U-shaped burrow. They use their large antennae to dig, and they shed their skin like a snake when they grow.



The **oystercatcher** has a loud high-pitched bird song, which sounds like 'kleep kleep'. Their beaks can be flat like a hammer to smash open shells to eat, or they can have a sharp beak to slice shells in two.

Key terms

A **habitat** is the natural home or environment in which an animal, plant or organism lives. A habitat contains all an organism needs to survive, like food and shelter.

A **microhabitat** is a small area within a larger habitat, which is home to a creature.

A **species** is a group of living organisms of similar individuals that share common characteristics and are capable of interbreeding.

Ocean habitats Fact File



UK ocean habitats and wildlife

Rockpools

Rockpools are tidal habitats found all over the UK on rocky shores. Rockpools are hard places to live with changing tides, sometimes strong waves and competition for space.

Rockpool species include:



© Michael Austin



Limpets have a tongue covered with tiny teeth which they use to scrape algae off rocks to eat. Their teeth are made from the strongest material in the animal kingdom – it's even stronger than most man-made materials.



Beadlet anemones have a jelly-like body. They stick themselves to rocks and use their tentacles to sting and catch prey. They can also curl up into a ball when they need to.



Shore crabs have a hard exoskeleton, which they shed when they grow (like a snake). They use their claws when feeding or fighting.



Common periwinkles are a type of sea snail. They use their foot to glue onto the rock and to scrape algae off the rock to eat.

Ocean habitats Fact File



UK ocean habitats and wildlife

Sandy seafloor

Sandy seafloor is the most common marine habitat. There aren't many plants or boulders to hide from predators, so animals living in the sand have to adapt. Some burrow into the sand to hide and some are camouflaged.

Sandy seafloor species include:



© PublicDomainPictures



Plaice are a type of flatfish and are camouflaged in their habitat. They start life looking like normal fish, but slowly begin to swim horizontally and live on the seafloor. As they go through this change their eyes move around so that both eyes are on top of their head!



Cockles are a type of bivalve, meaning they have two shells. They bury themselves in the sand hiding from predators like flatfish. Their shells have horizontal growth lines which can be used to age them, just like a tree.



Weever fish hide in the sand and have a sharp black dorsal fin which contains poison and is used to scare off predators. These stings can also be very painful to humans when accidentally stepped on.



Sand eels aren't eels, but eel shaped. They are an important food source for seals and seabirds like puffins. To avoid being eaten they swim in shoals.



Burrowing urchins are also called sea potatoes and heart urchins. They use their soft spines to burrow into sediment, and under their spines is a heart-shaped shell.

Ocean habitats Fact File



UK ocean habitats and wildlife

Open ocean

Our part of the open ocean is called the North East Atlantic Ocean. This can be split into smaller coastal seas. There's a huge variety of animals that live in the ocean from tiny microscopic plankton to huge whales.

Open ocean species include:



© Cristian Palmer



Bottlenose dolphins are very clever animals and enjoy being sociable and hanging out in groups. They eat fish and squid and will swallow their food whole.



Bluefin tuna can grow up to 300cm long and can live for around 40 years. They travel all across the world, covering huge distances. They are very fast swimmers and amazing predators.



Basking sharks are 8-10 metres long, making them the second-largest fish in the world. They are filter feeders, feeding on tiny plankton species.



Although **By-the-wind sailors** look like jellyfish, this jelly-like creature is actually made of lots of tiny animals called hydroids. Their sail-like structure helps them to catch the wind and sail across the ocean.

Ocean habitats Fact File



UK ocean habitats and wildlife

Seagrass beds

Seagrass beds are found in calm, shallow, sunlit, coastal waters around the world. Seagrass is the only flowering plant in the ocean. Across the world seagrass beds are important as fish nurseries, as young fish can hide between the plants.



© divedog

Seagrass beds are home to species like:



Spiny seahorses are a type of fish. They can change colour to match their environment. The male seahorse looks after the eggs in a pouch (a bit like a kangaroo pouch).



To hide from predators, **cuttlefish** can change colour to camouflage and they can spray black ink at their predators. They lay their black grape-like eggs on plants to stop them floating away.

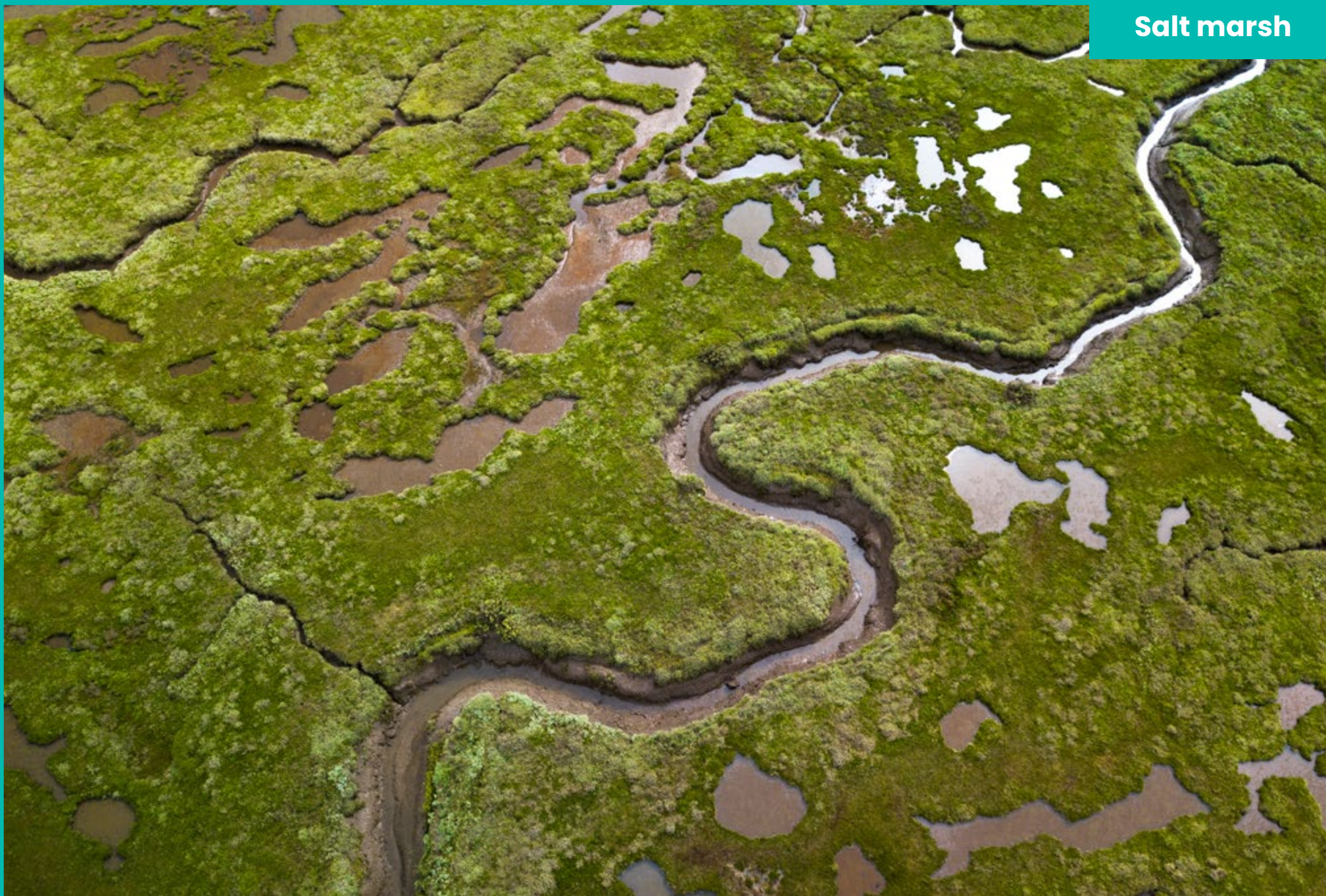


Stalked jellyfish – Unlike other jellyfish this creature does not swim around, but spends its life attached to a plant. They have 8 arms, and each arm has about 45 tentacles!



Corkwing wrasse females and baby fish are brown/green in colour. Males are very brightly coloured, but can change colour at night when sleeping to become camouflaged.

Salt marsh



Rockpool



Sandy seafloor



Open ocean



Seagrass beds



Human



Orca



Seal



Flatfish



Whelk



Otter



**Edible
crab**



Mussels



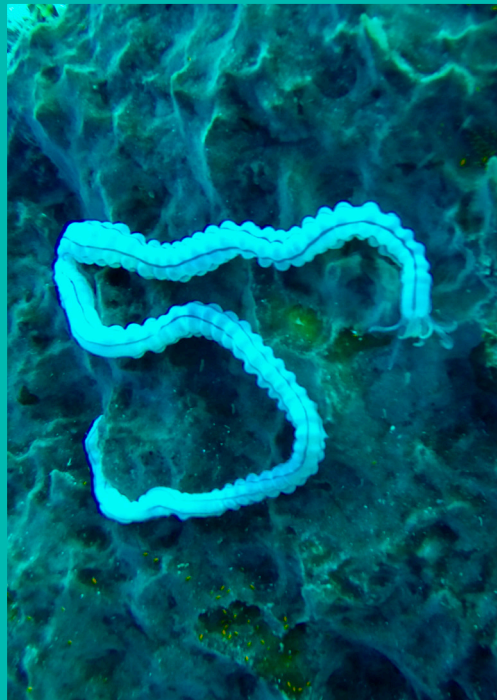
**Hermit
crab**



Urchin



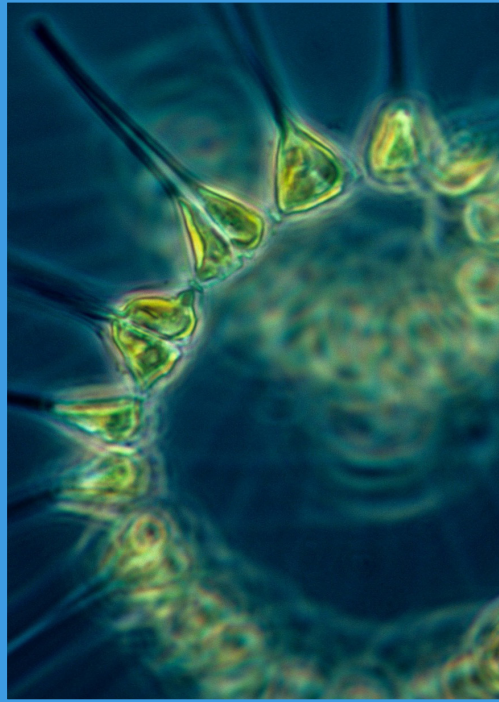
Worm



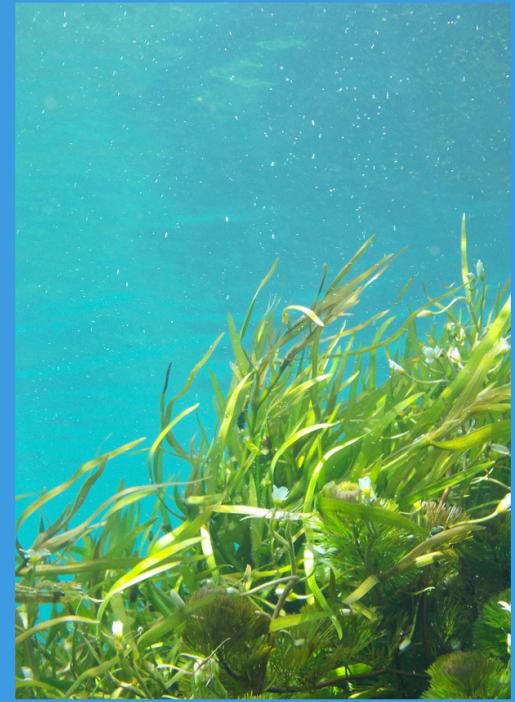
**Basking
shark**



Plankton



Seaweed



Ocean habitats

Name:

What is the name of your creature?

What is the name of the habitat your creature lives in?

Describe what it is like to live in this habitat

Does your creature live in a microhabitat? What is it like?

Draw a picture of this habitat.

You picture should include:

- Non-living things like rocks, mud or sand
- Living things like plants or seaweed
- Your creature and other creatures that live in that habitat

Curriculum links

England

Science

- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
- Identify and name a variety of plants and animals in their habitats, including micro-habitats.

Art

- To use drawing, painting and sculpture to develop and share their ideas, experiences and imagination.

Computing

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Wales

Science & Technology

- I can explore relationships between living things, their habitats and their life cycles.

Expressive Art

- I am beginning to design my own creative work.

Digital Skills Framework

- I can find information, such as images, using keywords.
- I can explore and use appropriate software to add text and images, exploring size and colour.
- I can create simple digital work.

Scotland

Sciences

- I have observed living things in the environment over time and am becoming aware of how they depend on each other.
- I can distinguish between living and non-living things.

Social science

- I explore and appreciate the wonder of nature within different environments and have played a part in caring for the environment.

Expressive Arts

- I can create and present work using the visual elements of line, shape, form, colour, tone, pattern and texture.
- I can create a range of visual information through observing and recording from my experiences across the curriculum.

Digital Literacy

- Using digital technologies responsibly I can access, retrieve and use information to support, enrich or extend learning in different contexts.