

# Cool Seas Explorers

Teach on the beach



A project made  
possible by

**M&S**

EST. 1884

# Taking part in a Beach Clean

Taking part in a beach clean is an excellent way of learning about our environment and raising awareness of marine conservation. It's also a good opportunity to take learning outside of the classroom and into your local environment.

Marine litter is a problem that we can all play a part in solving, and what better way to start than with a day at the beach!

## Why get involved?

Beach cleaning is not only about tidying up our beaches and preventing harm to our marine life, it is also about data collection. As part of our Beachwatch programme, we have been collecting data on beach litter for over 20 years, to build the evidence base on litter levels in the UK. The information we will collect is used to raise awareness, shape campaigns and lobby government and industry for changes to try and stop litter reaching our beaches in the first place. If you are taking part in an organised beach clean event the data collected will feed into our litter programmes and wider pollution work.

## About this resource

The activities in this booklet are intended to provide teachers or group leaders with possible activities to run on the beach with their students/children. As each activity takes about 45 minutes, we suggest that you select two or three activities to complete, depending on the overall length of the visit.

The activities are aimed at **middle Primary age** but could easily be adapted for other ages. Full National Curriculum links, organised by country, are available for download from [www.mcsuk.org/coolseas](http://www.mcsuk.org/coolseas).

## Finding an event

As well as the Big Beach Clean Up and Great British Beach Clean, MCS organise regular beach cleans around the U.K. Visit [www.mcsuk.org/beachwatch](http://www.mcsuk.org/beachwatch) for more information.

## Before the day

- ★ Prepare resources/photocopies for chosen activities.
- ★ Visit the beach yourself before the day.
- ★ Discuss the excursion with your class and go through the survey form.
- ★ Use an interactive map to locate your local beach.
- ★ Examine the map, identifying key features (compass points, land, ocean) to orientate children.
- ★ Zoom in to examine features children may be familiar with, or that identify this particular beach (pier, esplanade, amusements etc).
- ★ Use atlases and maps to locate the same beach and compare the maps. Discuss: Which one is better? How are they different? Why might there be differences?

## On the day

What to bring:

- ★ Drinking water in a re-useable bottle
- ★ Gloves
- ★ Suitable clothing, including closed shoes
- ★ If you are going to have a packed lunch, challenge the children to try and bring foods with as little plastic packaging as possible.

Discuss the safety details opposite and general organisation for the day with your students before you arrive at the beach.



## Health & safety

As there are obvious risks related to working on a beach, classes should be divided into small groups with an adult working with each – this will be necessary for several of the activities too. **Even at an organised event, students will remain the responsibility of their class teacher at all times.**

- ★ Identify the area that you will be working in with your students. It should be an area in which students are in close proximity to an adult at all times and will be the area where your students will complete their activities during the day. **Make it clear to your students that they must not leave this area without permission.**
- ★ Highlight any potential hazards you have identified, that are specific to your chosen beach.

On behalf of our marine environment, thank you for helping to raise awareness of marine conservation issues!

# The beach clean - litter search

## Outline

This task involves students investigating the types of litter found on the beach. In groups, they will complete the beach clean. This involves surveying litter, recording information about what they find on a survey sheet and collecting the rubbish in a black bin bag. The follow-on activity (to be completed back at school) draws out current themes and issues around marine conservation and human impacts on the environment.

## Background information

**The issue** - beach litter is unsightly, can be hazardous to animals and can also have negative impacts on tourism and on the fishing industry. There are four main sources – the public, fishing, sewage-related debris and shipping. Plastics are a major problem and consistently make up over 60% of what is found. All litter is harmful once in the sea, but plastics pose a particular concern as they can take many years to break down. Animals can be harmed if they get caught up in or eat litter. We can all play a part in stopping this from happening, starting with your being here today!

## Follow up - back at school

Discuss the beach clean - Why did we do a beach clean? What is the issue?

Discuss the litter found. Identify the most commonly found litter (likely to be plastics). Brainstorm all the types of litter found and discuss the properties of different materials found.

In small groups, students should identify where this litter may have come from - add this to their own brainstorm.

## Resources

One **survey sheet** (available on the day), pencil, bin bag and clipboard per group, gloves and litter pickers.

## The activity

- ★ Divide your students into small groups, with an adult accompanying each. The adult's role is to support students to identify litter and accurately complete the survey form. **It is also important to ensure that students do not touch anything harmful.**
- ★ Discuss the form itself and how to use a tally chart to record litter found.
- ★ Remind students of the safety information at the beginning of this booklet. They should use litter pickers to pick up all litter.
- ★ Working as a group, students locate, identify and record each piece of litter found before placing it into the bin bag. An adult should monitor the survey form carefully to ensure accuracy of data.
- ★ If you are at an organised event, return litter, survey form and equipment to organisers.

Each group to share ideas with the class.

Discuss - How does this litter end up on our beaches?

Brainstorm ways we can reduce litter. Create a list of top ways to reduce litter and share it with your school community in an assembly or school newsletter.

Use a tally system (  $\# = 5$  ) to record litter items. If an item doesn't fit into the individual items listed, then just record in the 'other' category.

**!** If a litter item is made up of more than one material - record it in the category which makes up the majority.

**Plastic** *includes rope, string and cord, shoes, fishing line and net*

Item	Tally	Total
Bags (including supermarket)		
Drink bottles		
Crisp, sweet, lolly & sandwich wrappers		
Fishing line (anglers)		
<b>Other Plastics</b>		

**Polystyrene** *includes foam*

Tally	Total

**Rubber** *includes boots*

Item	Tally	Total
Balloons, balloon string		
<b>Other Rubber</b>		

**Unusual items**


**Metal**

Tally	Total

**Paper**

Tally	Total

**Wood** *includes cork*

Tally	Total

**Glass**

Tally	Total

**Pottery / ceramic**

Tally	Total

**Cloth**

Tally	Total

Final total =



# Treasure hunt

## Outline

This activity provides an opportunity for students to explore the local beach environment, learn a little about some of the common marine species they may come across and investigate the range of items that are washed up on the beach.

## Resources

One **treasure hunt game sheet**, a clipboard and a pencil per group.

## The activity

- ★ Split the class into small groups of three or four and identify a 'safe' area for students to work in. This will depend on the particular beach and the age of the students so should be decided by the class teacher.
- ★ Introduce the **treasure hunt game sheet**, discuss each item and run through the following rules.
  - ★ Each team must find as many of the following items as possible in the time given.
  - ★ No-one should leave the designated area.
  - ★ Emphasise that children should not pick up or move plants and animals that are alive and should follow the safety rules discussed earlier.
  - ★ Support and encourage groups as they work, ensuring that safety guidelines are followed at all times.



- ★ After the designated time is up (about half an hour) gather students together and compare results. Check each group's findings and add up points to find the group winner.
- ★ If you have found any mermaid's purses, take them back to school with you – you will need them for the follow-up activities.

## Follow up – back at school

Find out about Mermaid's purses (skate, ray or shark egg cases). Use the following links as a starting point:

- ★ [www.sharktrust.org/en/great\\_eggcase\\_hunt](http://www.sharktrust.org/en/great_eggcase_hunt)
- ★ [www.objectlessons.org/natural-world-water/mermaid-s-purse/s77/a276/](http://www.objectlessons.org/natural-world-water/mermaid-s-purse/s77/a276/)

Try to answer the following questions:  
What are they? Where are they found? Which types of Mermaid's purses are found in the UK?  
Write up your research as an information report.  
Choose either a skate, ray or shark, draw a diagram to show the life cycle, like this example:

- ★ [www.sharktrust.org/shared/downloads/display-materials/skate\\_lifecycle\\_a3\\_junior\\_poster\\_web.pdf](http://www.sharktrust.org/shared/downloads/display-materials/skate_lifecycle_a3_junior_poster_web.pdf)

If you were lucky enough to find any Mermaid's purses, you could use the Egg Case Identification Key from the Shark Trust: You can also report your findings here.

- ★ [www.sharktrust.org/shared/great\\_eggcase\\_hunt/eggcase\\_id\\_key.pdf](http://www.sharktrust.org/shared/great_eggcase_hunt/eggcase_id_key.pdf)

In your group, see how many of the following items you can find. Tick them off as you go. Remember, the safety advice discussed earlier.

## Can you find...



A piece of seaweed  
(10 points)



An empty shell  
(5 points)



A mermaid's purse  
(10 points)



A cotton bud stick  
(5 points)



An item connected to fishing  
(5 points)



Something shiny  
(5 points)



An item with a link to children  
(10 points)



An item made of wood  
(5 points)



A feather  
(5 points)



A perfectly smooth pebble  
(5 points)

When the time is up, add together your scores and record your total in the box below. Don't forget, the group with the most points wins!

Total points =  / 65

# Tangled web

## Outline

This activity introduces children to the role turtles play in the marine ecosystem and provides a fun insight into ecosystems and food webs. Each student in the class will represent a different component of the web and establish how s/he is related to the other components. The teacher will need to support students in making the connections between some of the components clear.

## Background information

Marine turtles are sometimes called 'keystone' species. This means that they contribute to the diversity of life and if they were not there it could have negative impacts for other animals and elements of the ecosystem in which they live. Marine turtles occur in a wide variety of habitats, where they are active participants in keeping their community balanced. Of the world's seven marine turtle species, five have been recorded in UK waters: the leatherback, loggerhead, Kemp's ridley, green and hawksbill turtles. The leatherback, the largest marine turtle is the species most commonly found in UK waters.

## Resources

A large ball of string and role play stickers.

## Follow up - back at school

Review the activity. Discuss what students learned about ecosystems and food webs.

Students should explain, in their own words, the connections, starting with the role they played.

Discuss the terms "ecosystems" and "food web" and devise a class definition for each. Ask, "what happens if an animal is taken away (becomes extinct)?"

## The activity

- ★ One person should take the role of a marine turtle and stand in the centre of the group.
- ★ Each child is randomly assigned one of the roles listed opposite and displays their role for others to see. One at a time, students describe the connection between themselves and the turtle and then sit in a circle around the turtle. The notes can be used as necessary to guide connections.
- ★ As the activity progresses, more and more connections are made until the whole class is sat around the turtle.
- ★ Select a student and give them the ball of string. As they make a connection between their self and another element (e.g. humans also eat crabs and sunbathe on the sand), they hold the end of the string and pass the ball on to represent the connection.
- ★ Make as many connections between elements as possible, passing on the ball each time, to make a web.



Students should choose at least three other suitable cards to create their own mini food chain. Depending on the age and ability of the students, it may be necessary to provide them with a 'set' of cards to link together. They should draw the animal and then link them together to show the relationship.

You may like to extend this activity to examining the range of turtles found in the UK. The MCS Turtle Code includes information about protecting our turtles as well as images and distinguishing features of each species:



[www.mcsuk.org/downloads/wildlife/turtlecode.pdf](http://www.mcsuk.org/downloads/wildlife/turtlecode.pdf)

## Role play stickers

### sea grass

Turtles eat sea grass.

### ant

Ants burrow into turtle nests and eat eggs.

### shark

Sharks eat hatchlings and can attack adult turtles.

### biologist

Biologists study turtles to try and find out more about them.

### orca

Also known as killer whales, orcas can eat adult turtles.

### ocean

All sea turtles and many other marine animals live in the ocean.

### sun

Turtles eggs need to be kept warm by the sun so that they will hatch.

### cleanerfish

Cleanerfish visit turtle cleaning stations and pick off parasites and dead skin.

### hawk

Hawks will take hatchling turtles on the beach and will also grab them at the sea surface.

### barnacle

Barnacles live on the backs of turtles.

### mollusc

Some turtles eat clams and other molluscs.

### jellyfish

Turtles (particularly leatherback turtles) love to eat jellyfish.

### pollution

Ocean pollution, like plastic bags and oil, can kill turtles.

### sand

Turtles need sand on dark, quiet beaches to lay their eggs.

### boat operator

People take tourists out on boats to see turtles and other marine life.

### fishing boats

Thousands of turtles get caught in commercial fishing nets and drown each year.

### diver

People like to see turtles and other marine animals while diving and snorkelling.

### lights

Lights at the back of a turtle beach confuse hatchlings, causing them to get lost. Lights can also disturb nesting females.

### dog

Dogs eat turtle eggs.

### crab

Crabs eat hatchling turtles; adult turtles eat crabs.

### gull

Gulls eat hatchling turtles on the beach and at sea.

### chef

Some people like to cook and eat turtle meat and eggs.

### bacteria

Bacteria can cause turtle eggs in the nest to rot.

### artist

Some people like to paint pictures of turtles and other marine life.

### coral reef

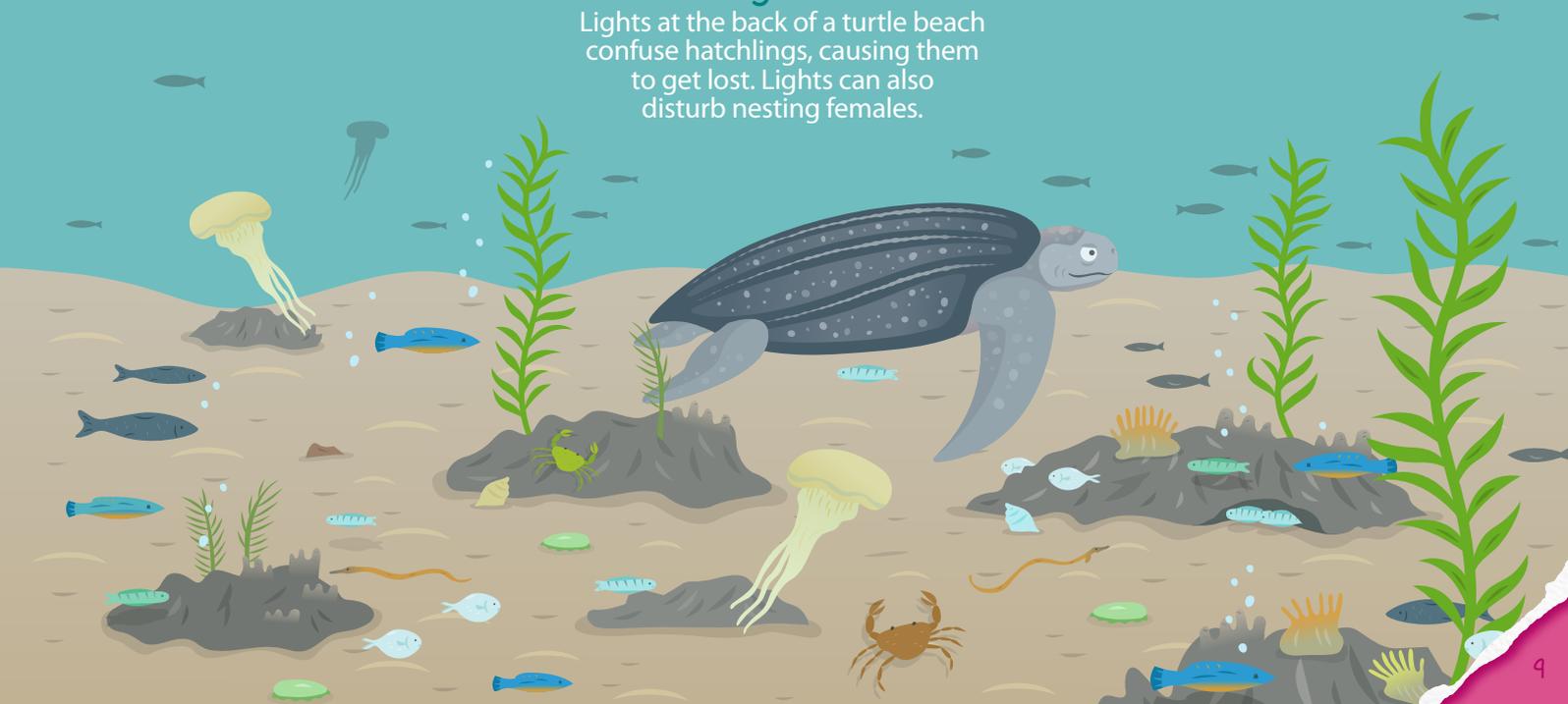
Turtles (particularly hawksbills) live on coral reefs and feed on sponges.

### restaurant owner

Some people own restaurants where people like to eat turtle meat and/or fish.

### fisherman

Fishermen catch turtles in their nets. If they did not mean to catch them, this is called 'By catch'.



# Limpet Game

The background of the page is a photograph of a rocky shore at low tide. Several limpets are visible, some with greenish-brown shells and others with translucent, greyish bodies. They are scattered across the rocks, which are partially covered by dark, leafy seaweed. The overall scene is a natural, outdoor setting.

## Outline

This game is a fun way to introduce children to the relationship between animals' life processes and their habitats.

## Background information

At low tide, limpets return to the same spot called a "home scar" in the rock and clamp down using their muscular foot. At high tide, they move away from their home scar to feed on seaweeds on the rocks. They leave a trail of mucus behind so they are able to find their way back. They risk being eaten by birds and other molluscs, or drying out, if they don't return to their home scar before the next low tide. A rockpool habitat can be a very harsh environment.

## Resources

One small ball per child (tennis balls or similar).

## The activity

- ★ The game begins at low tide - each person (bar one) should create a home scar in the sand and 'clamp down' (freeze). If you are on a pebble beach, coats or mats can be used to create a home scar.
- ★ The remaining person becomes the gull, waiting for the next low tide.
- ★ The teacher, or a chosen student leader, shouts, 'high tide' and randomly throws some food (balls).
- ★ Limpets must leave their home scar to forage for food. There should be one ball for each child.
- ★ At any time, the leader can call, 'low tide' and all limpets must return to their home scar, with or without food.
- ★ In the meantime, the gull will try and eat the limpets by tagging any they catch off their home scar.
- ★ Any limpets caught then become gulls.
- ★ Remove the same amount of balls as limpets caught for each round (or more if you want to speed up the game).
- ★ Limpets can only return to their home scar without food once before they starve and become a gull.



### → The last limpet remaining wins!

More predators, less prey - less competition for food so limpets don't need to forage far from their home scar. Harder for predators to catch prey.

Less predators, more prey - More competition for food so limpets need to forage further for food. Easier for predators to catch prey.



Limpet home scars

## Follow up - back at school

Discuss the game: Why did the limpet leave their home scar? What risk did they take? Why did they take this risk? How have they adapted? - think about their body shape. Introduce/discuss predator/prey relationships. Use the link:

🌀 [ypte.org.uk/factsheets/seashore/animals-of-the-rocky-shore#section](http://ypte.org.uk/factsheets/seashore/animals-of-the-rocky-shore#section) (to find out more about limpets)

Consider why the rockpool habitat is a harsh environment.

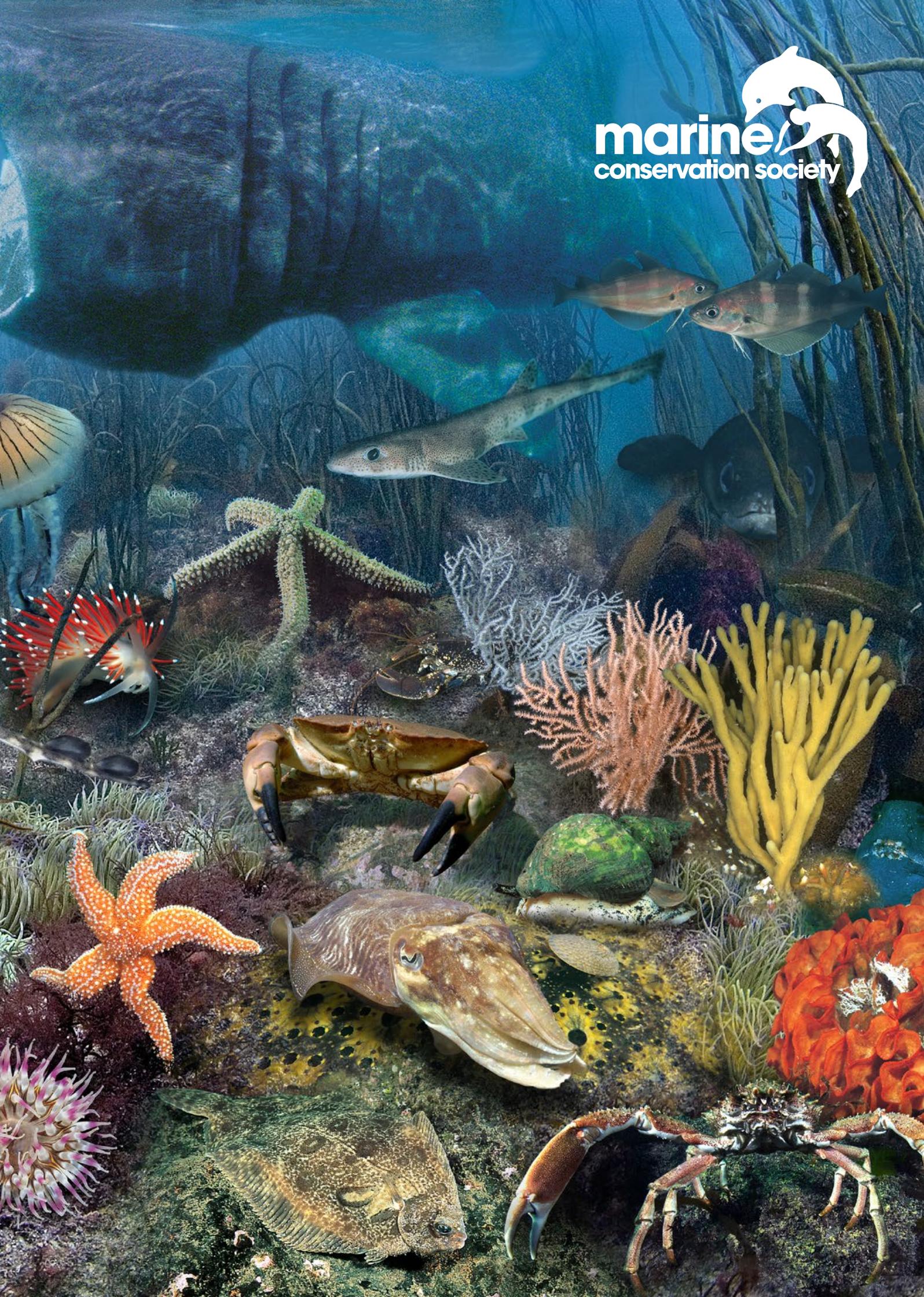
Create a limpet food chain, identifying their food source and predators on the board - there are a number of limpet predators. The following link details several which students can choose from:

🌀 [www.enature.com/expert/expert\\_show\\_question.asp?questionID=4228](http://www.enature.com/expert/expert_show_question.asp?questionID=4228)

Each student should draw the elements of their food chain on card and label, before linking them together as a chain. Predator and prey should be identified and food chains displayed around the classroom.

# Marine Species of the UK





# The water cycle

## Evaporation

Heat from the sun causes water to evaporate from the surface of streams, rivers and the ocean.

## Condensation

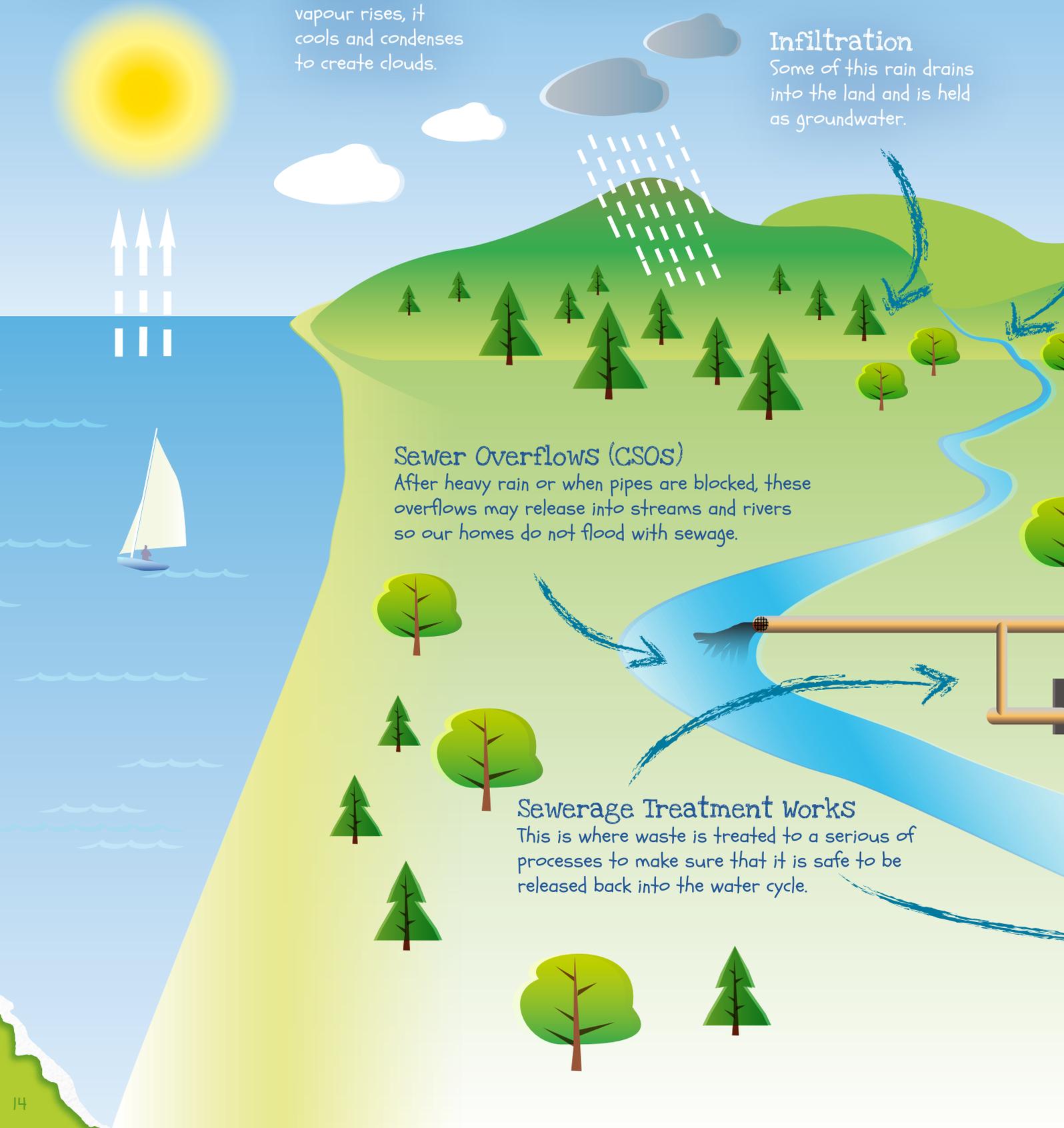
As the water vapour rises, it cools and condenses to create clouds.

## Precipitation

When the clouds meet cool air over land, precipitation (rain, sleet, or snow) is triggered, and water returns to the land (or sea).

## Infiltration

Some of this rain drains into the land and is held as groundwater.



## Sewer Overflows (CSOs)

After heavy rain or when pipes are blocked, these overflows may release into streams and rivers so our homes do not flood with sewage.

## Sewerage Treatment Works

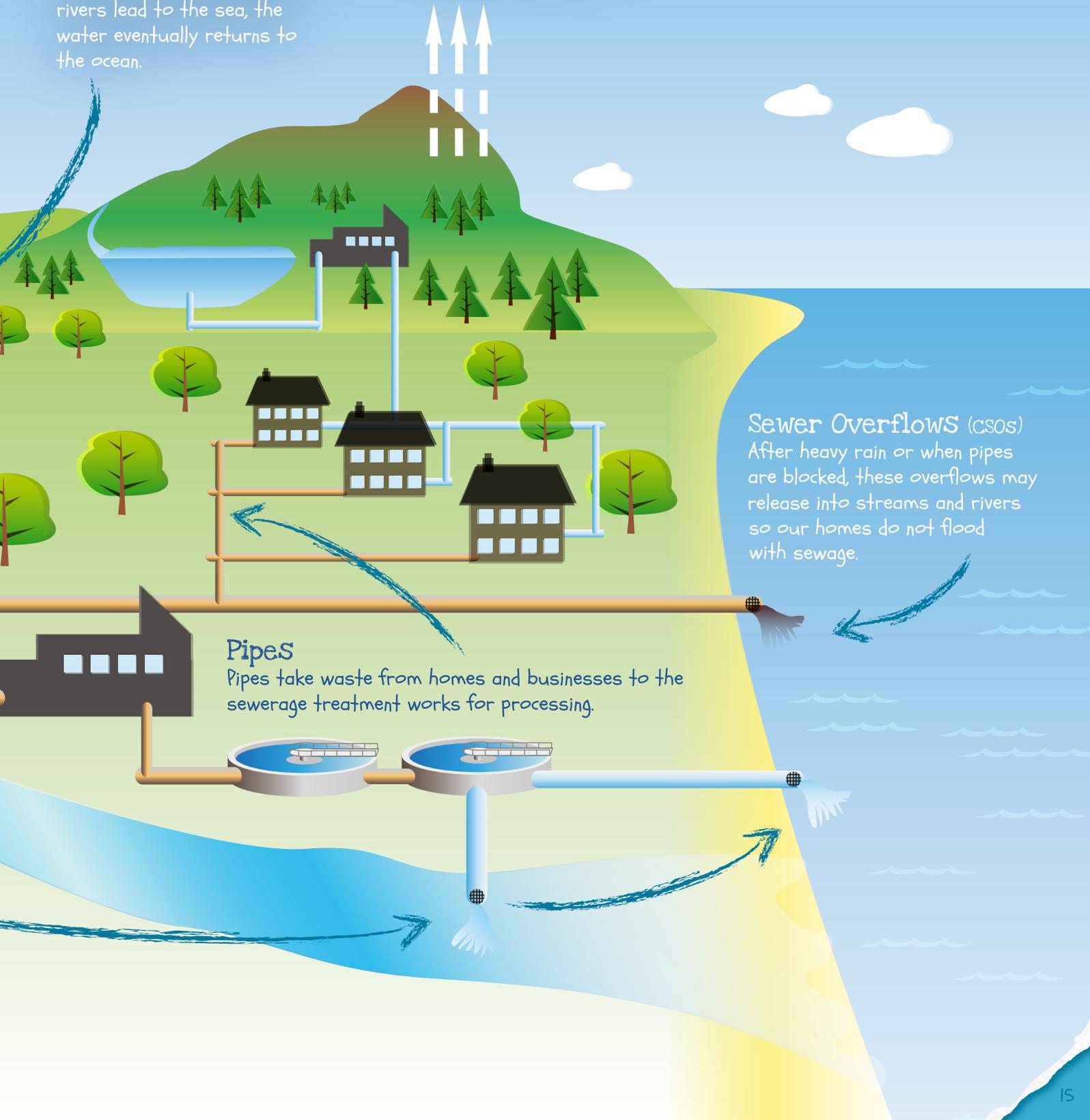
This is where waste is treated to a series of processes to make sure that it is safe to be released back into the water cycle.

## Runoff

Much of the water that returns to Earth as precipitation runs off the surface of the land, and flows downhill into streams, rivers, ponds and lakes. As all streams and rivers lead to the sea, the water eventually returns to the ocean.

## Transpiration

Water evaporates from the leaves of plants. This process is called transpiration.



## Sewer Overflows (CSOs)

After heavy rain or when pipes are blocked, these overflows may release into streams and rivers so our homes do not flood with sewage.

## Pipes

Pipes take waste from homes and businesses to the sewerage treatment works for processing.

# How does echolocation work?

## Outline

This activity investigates the use of echolocation in marine animals such as dolphins. Children will begin by considering difficulties marine animals may encounter in the oceans. They will be introduced to the term echolocation and then investigate how it works by playing a simple game.

## Background information

Echolocation is the method used by animals, such as the dolphin, for navigating and locating food. Echolocating animals emit high-frequency sounds that bounce off things in their surroundings, like prey, rocks etc. These sounds bounce back to the animal which uses them to work out the size, shape and distance of the object. Echolocation works particularly well in the ocean, as sound travels well in water.

## ReSources

A blindfold.



## The activity

- ★ Begin by posing the key question, 'What difficulties do marine animals encounter in their habitat?' Difficulties involving ability to communicate, navigate and locate prey over long distances and in poor visibility may be suggested. If not, pose as a question to elicit children's ideas.
- ★ Introduce and discuss the term echolocation and explain that they are going to be playing a game to help them understand how it works.
- ★ In small groups, children sit in a circle, facing inwards with approximately a metre between each child.
  - ★ Pick two children out of the group to stand in the middle of the circle - they are now the dolphin and the fish.
  - ★ Blindfold the dolphin and ask them to imagine they are hunting in very dark, murky water.
  - ★ The only thing the dolphin can say is 'Dolphin!' Whenever the fish hears this, they must respond, 'Fish!'
  - ★ The object is for the dolphin to tag the fish. They can't see, so they must rely solely on their 'echolocation' and neither is able to run; they must walk heel-to-toe.
  - ★ Children around the circle are the sea grass. Their job is to act as the boundary, and protect the dolphin from charging out of the circle or falling over. As sea grass, they do not interfere with the echolocation, so must remain very quiet.
  - ★ If the dolphin is having too much difficulty finding the fish, ask the sea grass to move closer together.
  - ★ Once the fish is caught, choose two different children to be the dolphin and the fish. Continue until all children have had a turn.
- ★ Extension: The sea grass should begin to make noises to represent the natural movement and background sounds of the sea. This makes echolocation more difficult.
- ★ After the game, discuss children's interpretations of echolocation, and how it helps animals, like dolphins, to overcome some of the difficulties discussed earlier.



## Follow up - back at school

Continue to discuss student ideas of echolocation. Use a web browser to view these short BBC clips showing species using echolocation to find food:

- ☀ [www.bbc.co.uk/programmes/p00jz1b5](http://www.bbc.co.uk/programmes/p00jz1b5) (River dolphin)
- ☀ [www.bbc.co.uk/programmes/p00dylgt](http://www.bbc.co.uk/programmes/p00dylgt) (Bottlenose dolphin)
- ☀ [www.bbc.co.uk/programmes/p00jz21r](http://www.bbc.co.uk/programmes/p00jz21r) (Narwhal)

Pose the question: Do you know any other species that use echolocation?

# Journey stick

## Outline

For this activity, students will reflect on their experiences during the day at the beach to make a visual record, a 'journey stick'. Combining natural and man-made elements collected during the day, students will complete an art activity to represent their experiences of the natural environment. The Journey Stick will then become the focus for creative writing.

## Resources

Piece of drift wood/stick per child; various colours of wool cut in lengths; natural and man-made beach litter collected from the beach.

## The activity

- ★ Show children the **journey stick** image and explain that they will be making their own Journey Stick to represent their day at the beach. Explain that they will need to collect a stick or piece of driftwood, as well as any natural or man-made 'bits' they will add. Remind students of the safety guidelines for picking up things from the beach and emphasise that each element should represent an aspect of the day. Avoid collecting shells which may be used by other animals, for example hermit crabs live in empty whelk shells.
- ★ Discuss the sounds, sights and smells of the beach. Encourage children to relate this to colours they may wish to use for their journey stick.
- ★ When children have the elements they need, ask them to spend a few minutes sitting and observing the beach.



Make sure the last colour is tightly tied, so it will not unravel.

## Follow up - back at school

Discuss children's experiences at the beach. Encourage students to share the sights, sounds and smells of the day and review the journey stick image.

Talk students through the process as you wrap coloured wool tightly around the stick (using the image and narrative above as a guide) Stress the importance of feeding each colour into the next so the stick is completely covered.

You don't need to start at one end and work towards the other. A bare end can be used to stick into the sand and can be useful for display purposes.

Emphasise the need to tell the story as you work. Everything that goes into the stick is part of the story of their day. Talking through the story helps students to tie the objects added, colour and events together.

Continue to add elements. Be adventurous - think about the colours used. Wool could reflect changing colours in the environment, the sky or even how you feel. Create shapes out of the things that have been found: trees, paths, gates, animals, buildings, people etc.



Invite students to share their journey sticks with the class. Encourage them to talk through their own stick, identifying links between the elements and what they actually represent.

Share the narrative example (on page 19).

Using their stick as a focus, students should then write the story behind their own Journey Stick. These can be displayed alongside the Journey Sticks.



# A completed Journey Stick - 'My Day at the Beach'

My journey began early one spring morning, the morning of Big Beach Clean Up. The clouds were floating high in the piercing blue sky and the sounds of gulls could be clearly heard, carried along with the crashing waves. (blue and white wool).

The path ambled before descending on to the sandy beach below. I stubbed my toe on a stone where the shale turns into sand, but continued to wander, breathing in the fresh smell of the ocean air deep into my lungs. Along the shoreline lay an array of shells, some whole, some broken; creatures' homes from bygone times (small pebble, shells).

To start the litter search, I walked along the cliff path, surrounded by grasses and heather. I noticed for the first time the range of colours that could be seen - so many different greens! (light green wrapped around the 'hill path').

As I stopped to take in the stunning views, I noticed the lichen and mosses covering the fence alongside the path. Occasionally, as I walked, I spotted the bright pink and purple of thrift and bluebell flowers (Mixed light green, pink and purple wool).

But it was not all natural and beautiful. I had a job to do. During my walk and my day on the beach, I collected a whole bag of litter, mostly plastic but also some metal too. I learned to be much more careful of what we throw away.



# Quick and easy games for the beach

(suitable for all ages)

## Seashore real estate

**Materials needed:** Pieces of rope the same length (at least a metre)

Children split into groups with each group given a piece of rope the same length. Groups must find a bit of habitat, or multiple habitats to lay their rope ensuring the two ends meet. They might choose open sand, rockpool, sand dune, strandline.

Groups must think of an animal which lives in that habitat (either real or made up) and sell the habitat to the buyer, explaining why the habitat is so well suited to the animal. Group members act as the estate agent and the teacher or a chosen student acts as the buyer. The group who sells their habitat most effectively wins.

## What colour is seaweed?

**Materials needed:** Seaweed

The idea of this is that there are three different seaweed colours (Red, Brown, Green) but many children may think there is only one.

Ask children what colour seaweed is. Talk about how they know. Get them exploring the beach for seaweed. Collect some that is not attached to rock. When they come back, get them to lay it out on the beach, separating into different colours and shapes.

Examine the different types, sizes, shapes and colours. Then ask again, 'What colour is seaweed?' to see what they have learned.

## Seashore day dream

**Materials needed:** Children!

Talk to the children about a daydream and discuss their ideas. Explain that they are going to go on a seashore daydream today. Ask them to find a comfortable spot, within earshot so they can hear your voice. Tell the children to close their eyes for a couple of minutes. Ask the following questions with a pause for reflection after each:

- ★ What can you hear?
- ★ What's making the sounds?
- ★ What can you smell?
- ★ Does it sound and smell like school? Home? Anywhere else you have been?

Now ask children to open their eyes and stay sat down, but look around them. Continue the daydream by asking:

- ★ What can you see?
- ★ Do you know what things are?
- ★ How does this place make you feel? Why?

Gather the group together and ask individuals to share their daydreams. Encourage children to compare the beach to their own environment.

## Who's dinner?

**Materials needed:** Children!

This game is along the lines of Scissors, Paper, Rock. Split children into two teams and they must make a base line in the sand or pebbles on the beach (Opposite each other but not too far apart!). This game is all about animal interactions and who eats what. The teacher must think of a food relationship between three marine animals or use the example below.

**Sea louse** feeds on **whale**

**fish** eats **sea louse**

**whale** eats **fish**

Teacher and children discuss the relationships between animals e.g. who eats who and decide on an action and a sound effect for each animal.

Each team will need to decide on which animal they will be, without letting the other team know. The teacher brings the teams into middle of the two bases and after shouting 3,2,1 the teams have to act out the animal they have chosen. The team that ends up being the prey, must run to their base before the predator team catches them. Any children that are caught join the opposite team. The game continues until everyone is on one team or the children are tired!!

## Reflections

Ask children to draw a picture of what they have learnt during the session using sand or pebbles.

Sit in a circle and ask children what they enjoyed the most, what they enjoyed the least and what they have learned. This can be used to improve on sessions next time.

Ask children to think of one thing they will remember from the session and share it with the group. Encourage them to explain why they chose that particular thing.

Get children to strike a pose to reflect the day. They might choose an action, activity or creature to represent, or even a shape which reflects their feelings. Individuals should be invited to explain their poses to the group.

Stand in a circle. Ask the following questions, after each, pass the ball to a child to answer/share:

- What was your favourite part of the day?
- What did you least enjoy?
- Would you like to visit the beach again?
- What was the most important thing you learned today?
- What is/would be your favourite thing to do at the beach?

Encourage children to reflect on the activities and explain their answers fully.

## Beachy pictures

**Materials needed:** Natural beach litter

Explain to the group that you are going to create a collage on the sand with beach litter. Emphasise that children should not pick up anything sharp, man-made or alive. Get children to collect an item each and gather together the items. Decide on a simple picture of something to do with the seaside. It could be an item related to the beach or an animal. Use the items gathered so far to create the outline. Gather more items and add them to create your beachy picture. Take a photo so you can take it back to school with you but, remember to leave all natural items on the beach.

# How else can you get involved?

## Cool Seas on tour

The Marine Conservation Society runs free curriculum-linked school workshops drawing on and extending the themes of environmental education.

For more information, visit [www.mcsuk.org/coolseas](http://www.mcsuk.org/coolseas) or email [coolseasroadshow@mcsuk.org](mailto:coolseasroadshow@mcsuk.org)

## Fundraise

Organise a **Big Blue Day** to raise awareness of the importance of looking after our oceans and raise funds for the Marine Conservation Society.

There are lots of ways of fundraising whilst making your day as fun as possible... dress in blue, use blue face paints, bake blueberry muffins, decorate your classroom in blue and ask your head teacher to judge which is best.

For more information, visit [www.mcsuk.org/support\\_mcs/Fundraise+for+MCS/Fundraising+Pack](http://www.mcsuk.org/support_mcs/Fundraise+for+MCS/Fundraising+Pack)

## Learn more

Visit our Cool Seas Explorer Centre ([www.mcsuk.org/coolseas](http://www.mcsuk.org/coolseas)) - Packed with games, information and learning outlines to inspire your students, motivate learning, and support curriculum coverage in Science, English, Geography and Citizenship. Our new, interactive classroom is all you need to nurture an awareness of environmental responsibility, and fulfil the requirements of the wider school curriculum.



## Adopt-a-Turtle

Your school could Adopt-a-Turtle. MCS is supporting vital turtle research. You can help us to protect marine turtles by adopting an endangered turtle species.

To find out more visit [www.mcsuk.org](http://www.mcsuk.org).



## Beachwatch

Join Beachwatch. With beach cleans throughout the year, as well as **Great British Beach Clean**, you can find out what's happening near you, or organise your own beach clean and become part of the most influential fight against marine litter in the UK.

For more information visit [www.mcsuk.org/beachwatch](http://www.mcsuk.org/beachwatch)



## There are a few simple things that everyone can do to reduce beach litter:

- ★ Put litter in the bin, never drop litter.
- ★ Avoid buying over-packaged goods.
- ★ Recycle as much as possible.
- ★ If your council does not provide facilities for plastic recycling, write to them asking why.
- ★ Reuse plastic bags – better still buy a canvas shopping bag, or a bag for life.
- ★ Bag It and Bin It! Never flush items like cotton bud sticks down the toilet – only flush the 3Ps, pee, poo and paper!



**Illustrations:** Alex Mathers (alexmathers.net) except 12-13 Penknife Ltd and additional character design by Emlyn Miles/MCS.

**Photos:** 6-7: Children running at West Kirby © Dylan Crompton; Sandy beach, Seaweed & Mermaid's purse © Ryan Townley; Cotton bud sticks © Keep Wales Tidy; Fishing gear © Stuart Askew; Can ring pulls © Stockvault; Toy at Porthcawl © Tim Fanshawe; Wooden pallet at the Gower © Alison Conway; Pebbles © Jane Lavington 8-9: Green turtle with remora © Malcolm Nobbs (malcolmnobbs.com) 10-11: Limpets on rocks & limpet home scars © Stuart Askew; Beadlets and limpets at Wembury © Paul Naylor 12-13: UK marine species composite © Paul Naylor (marinephoto.co.uk) 16-17: Dolphins breaching © Charlie Phillips; Common Dolphin breath © Judith Scott; Dolphins bow riding © Andy Bowen 18-19: Journey sticks © Rachel Stephens; 22-23: Cool seas roadshow © Jenny Griffiths, Big Blue Day © MCS; Loggerhead turtle © Tom Shelley; Volunteers & Young litter picker © Tim Fanshawe; Children in Whitby shallows © Stuart Askew





We've created the Teach on the beach resources to support 'on beach' and 'in class' teaching and learning about our seas, shores and wildlife.

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