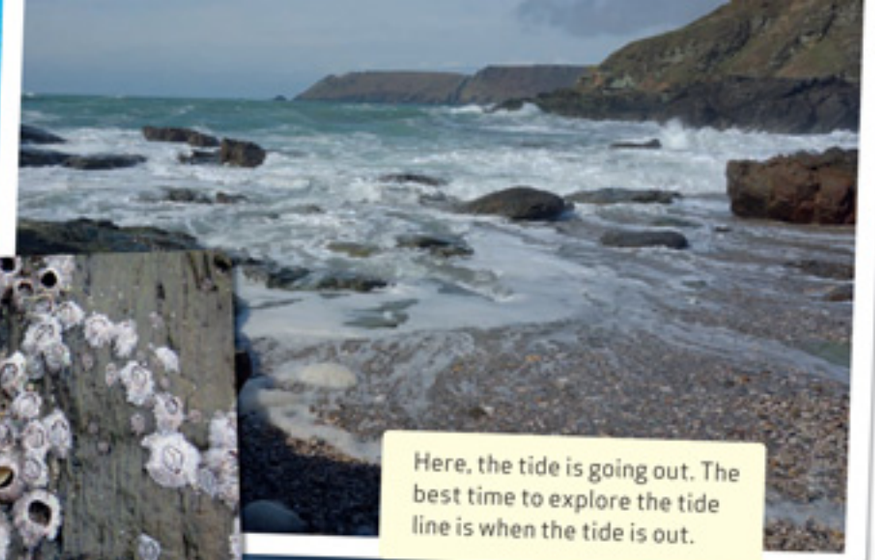
The seashore

A seashore is where the sea meets the land. It is a tough environment, where only the most hardy animals and plants survive. The tides roll in and out, as the seas are pulled by the moon's gravity. Twice a day, at high tide, the sea covers the shore. Twice a day, at low tide, the sea flows back out, uncovering rocks and sand. Animals and plants must be able to live in both cold waters and sunshine.



Here, the tide is going out. The best time to explore the tide line is when the tide is out.



Hardy barnacles



Spiky sea urchins

Seaweed-covered rocks can be slippery. Take care when exploring the seashore.

Seashore zones

The seashore is made up of different **zones**:

- **The splash zone:** The rocks at the top of the beach are sprayed with salty water.
- **The upper zone:** Above the high-tide mark, snails and seaweed species, which can live out of water for long periods, can be found here.
- **The middle shore:** Between the high and low tides, barnacles and limpets keep themselves moist here until the sea covers them once again.
- **The lower shore:** Only seen at the lowest of tides, here we find beautiful marine creatures like starfish and sea urchins.

Super seashores

At almost 250 km long, the sandy seashore of Praia do Cassino in Brazil is the longest beach in the world. Meanwhile, Australia has the second-longest beach: Ninety Mile Beach, as its name suggests, measures a whopping 90 miles (145 km). Padre Island National Seashore, in the US state of Texas, also has an impressive shoreline that covers over 110 km.



Did you know?

Around 8,000 years ago, a huge tsunami hit the United Kingdom and turned it in to an island. Low-lying land that connected the UK with Europe became flooded, creating what is now called the North Sea and the English Channel.

Seashore-watcher essentials

To make the most of your seashore experience, remember to take great care, and keep your eyes and ears open. The right footwear and clothing is important to avoid injury, sunburn or **hypothermia**.

What to wear?

You can enjoy exploring the seashore in almost any weather. Here's what to wear on your trip:

- Sun cream, long sleeves and hats for hot, sunny days.
- Wellies, boots or sturdy shoes with a good grip that you don't mind getting wet.
- Layers and waterproofs for chillier, rainy days.



Wet-weather clothing

Seashore-watcher kit

Here are some useful bits of kit to pack. Don't worry if you don't have all these things, you'll still have a great day out.

- **bucket**
- **clear plastic pots**
- **magnifying glass**
- **notebook**
- **pencil**
- **seashore guide**
- **binoculars**
- **camera** (with secure wrist- or shoulder-strap to avoid saltwater dunking).
- **rucksack**, for your kit, and to keep your hands free while exploring rocky areas.



Carry a rucksack to keep your hands free.

Seashore safety

- If you see something sharp or dangerous, leave it where it is and tell an adult.
- Avoid touching jellyfish – those washed onto the shore may still sting!
- Read public-information signs on the beach for useful information.



A sign at Surfer's Corner, near Cape Town, South Africa.

Checking the tides

The tides shape the seashore and create a very special environment. Creatures that live between the tides are suited to living both in and out of the water. Learning a little bit about the tides will help you to find the best tidal pools.



Seastars in a shallow tide pool.

TIDAL INFORMATION

Date	Tues 12th Aug	
High Water	13:00	9.8m
Low Water	20:00	0.5m
Wind	SW	20mph
Conditions	Rough	
Sea Temp.	17°c	
Air Temp.	16°c	

Tidal information can be found on beach displays.

What causes the tides?

The tides are created by the gravitational pull of the moon and the sun. The pull is at its strongest when the moon and sun are in line with the earth, when the moon is full or new.

Tide tables

A local tide table or display panel will tell you the time of the high and low tides. Most seashores around the world will have two high and two low tides. Tidal information will usually tell you:

- the date;
- the time of the high tide (or high water);
- the height of the high tide – the higher this number, the less beach there is;
- the time of the low tide;
- the height of the low tide – the lower this number, the more seashore there is to explore.

Spring and neap tides

Spring tides are when there are very-low low tides and very-high high tides. These happen at full and new moons. The tides rise and fall quickest on spring tides.

Neap tides happen at the first or last quarter of the moon. The difference between the high tide and the low tide is at its smallest. The tides rise and fall more slowly on a neap tide.

Tide top tips

- Follow the tide out as it drops, and head back to high shore before the tide turns.
- Head to the seashore on big spring tides, when more seashore can be explored. Full or new moons in the night sky bring big tides.



Neap tide at Morston Creek, Norfolk, UK.



Hopewell Rocks, in the Bay of Fundy, on the high and low tides.

Did you know?

The biggest tides are found in Canada in the Bay of Fundy, which separates New Brunswick from Nova Scotia. Here, the difference between the high and the low tide is a massive 16.3 metres.

Saving Our Seashores (SOS)

Our seashores give us lots of happy memories and experiences. There are a few simple things that we can do to help protect our seashores, so that we can continue to enjoy them in the future.

Human impact

Our seas give us water, food, medicine, oxygen to breathe and pleasure. They even help regulate our climate. It is important that we look after our seas. Human activities such as pollution and overfishing cause huge problems. Using too many fossil fuels causes sea levels to rise and changes in sea temperature, too.



A guillemot is cleaned after being polluted by oil.



You can make a difference.

SOS... on your visit

- take only photographs, leave only footprints;
- always bring your litter home with you;
- join local beach cleans and recycle the rubbish you find;
- follow the seashore code (turn back to pages 12–13).

SOS... from home

- eat fish that is sustainably caught (in ways that reduce damage caused to the environment);
- reduce the electricity that you use to reduce the warming of our oceans;
- never put chemicals, baby wipes, cotton buds or plastic down the sink or toilet.



Bin it, don t flush it!

SOS... at school

- take your nature journal to school to share your discoveries;
- encourage your school to help you learn about the seashore;
- think of three things that could be done at school to help reduce litter or pollution at sea;
- get involved in World Oceans Day on June 8th each year;
- remind your teachers and friends of fantastic sea facts.

Did you know?

Most of the earth's oxygen we need to breathe comes from tiny ocean plants called plankton.



Offer to help at your local beach on World Oceans Day.