

Seaside Detectives Family Tracker Pack



Introduction...

This Family Tracker Pack will help you to discover the natural beauty, wildlife and history of this very special coastline through activities and games.

Follow the route between Robin Hood's Bay and Boggle Hole (see map), choose as many or as few of the activities in the pack as you want, and discover some fascinating facts along the way. Enjoy yourselves!

Fun fun fun... activities to help you explore, discover and create...

1. Rock pool recce
2. Fossil hunt
3. Beach art
4. Alien invaders
5. Boggles
6. Brilliant birds
7. Wonderful words bucket

Essential Info...

Walk on the beach only if the tide is going out.

Time allow 2 hours

Length 2km

Terrain An easy walk along the beach and cliff path with steep steps between the beach and cliff path at Boggle Hole and at Robin Hood's Bay.

Check the tide tables in this pack!

Plan your route – choose the most appropriate direction to fit in with the tides.



Seaside Detectives Family Tracker Pack



Directions to help you on your way...

Check the tide tables! Plan your route – choose the most appropriate direction to fit in with the tides.

Along the cliff top from Robin Hood's Bay

From the slipway follow the steps behind the Old Coast Guard Station up Covey Hill that lead onto the Quarter Deck, then head along the path that climbs up the hillside to the right, with wooden steps in places, to reach the cliff-top path. A clear path follows the cliff edge all the way to Boggle Hole.



From Boggle Hole

Cross Mill Beck bridge and climb the steps beside the Youth Hostel sign posted Cleveland Way.



The North York Moors National Park



The North York Moors National Park is a beautiful landscape of stunning moorland, ancient woodland, historic sites and spectacular coast.

Part of this walk follows the Cleveland Way National Trail



This trail follows 109 miles of beautiful landscapes and scenery. The route follows a horseshoe line around much of the North York Moors National Park.

national trust photograph

Coast Alive



The aim of this project is to find new ways of encouraging people to enjoy a healthy lifestyle in the superb countryside and coastal areas where they live. This Tracker Pack has been produced by the North York Moors National Park Authority with the assistance of the National Trust and is one of many activities we are trying out. Please tell us what you think about it by completing the feedback form when you have finished. www.coast-alive.eu

Part of the walk will take you through land owned by the National Trust



The National Trust is a charity and as well as historic houses and monuments they also look after important habitats, castles, villages and archaeological remains - for ever, for everyone.



Seaside Detectives Rock Pool Safari

The background of the slide is a photograph of a rock pool. The water is clear, revealing a variety of seaweeds and rocks. The colors range from dark greens and browns to lighter, sandy tones. A large, solid red circle is overlaid on the right side of the image, containing the text "Amazing Facts".

**Amazing
Facts**

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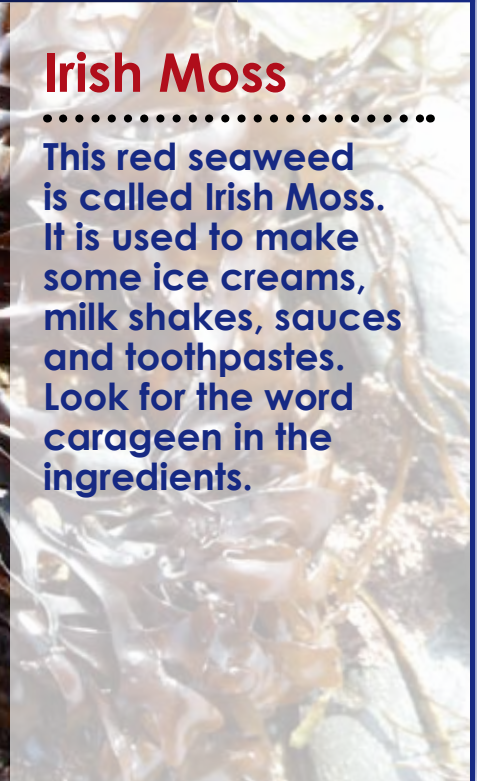
Amazing Facts



Irish Moss

.....

This red seaweed is called Irish Moss. It is used to make some ice creams, milk shakes, sauces and toothpastes. Look for the word carageen in the ingredients.



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Amazing Facts



Beadlet anemone

Stinging sensation

.....

The beadlet anemone has up to 192 tentacles arranged into 6 circles. It is a carnivore. Its tentacles are covered with stinging cells that paralyse prey and pass the victims to its mouth in the middle.

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Amazing Facts



Limpet

Homeward bound

.....

When the tide is high limpets crawl around on the rocks feeding on seaweed. As the tide falls, each limpet follows a slime trail and returns to its own special spot on the rock where it says, stuck tight, until the tide goes out again.

Limpets start life as males but after two years switch sex and become females!

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Amazing Facts



Dog whelks

Driller Killer

.....

Dog whelks are active predators. They have special drilling mouth parts to bore through the shells of limpets, barnacles and mussels. Then they inject digestive enzymes through the hole and suck up the liquid food.

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Amazing Facts



Acorn barnacles

A head case!

.....

Barnacles have jointed legs and shells of overlapping plates. They are glued to the rock by their heads and when the tide is in they open their shells and wave feathery legs through the water to catch food particles.

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Amazing Facts



Common periwinkle

An edible snail

.....

The common or edible periwinkle is a small marine snail. Periwinkles are herbivores, using their rough tongue called a radula to scrape seaweed off the rocks. Females lay up to 100,000 eggs each year.

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Amazing Facts



Green shore crab

**Mean green
fighting machine**

.....
Green shore crabs feed on worms, molluscs, small snails, small crabs, algae, carrion and almost anything else they can catch! They are very aggressive and often fight each other and as a result about one in twenty only have one claw.

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Amazing Facts



Oarweed

.....

Oarweed contains chemicals which thicken liquids and make gels. These chemicals are used in products such as tomato ketchup, postage stamps and beer.

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Amazing Facts



Sea lettuce

.....

Sea lettuce is edible!
It can be eaten as 'laverbread', which is made by boiling it for hours until it forms a sort of jelly. This means that it grows, reproduces and then dies in a season. It is a very common seaweed found all over the world.

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Where to look on the shore



Butterfish

Oarweed

Edible crab

Limpet

Coral weed

Dog whelks

Acorn barnacles

Upper shore – Acorn Barnacle
Mid shore – Limpet
Low shore – Edible Crab
Lower shore* – Oarweed
Rockpools – Coral weed
Under seaweed – Butterfish
Overhangs – Dogwhelk

**(on very low tides)*



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I spy rock pool wildlife



Common periwinkle



Sea lettuce



Saw wrack



Beadlet anemone



Acorn barnacle



Dog whelk



Green shore crab



Limpet



Coral weed



Bladder wrack



Top shell



Butterfish



Irish moss



Hermit crab



Oarweed

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1. Rock Pool Safari



What's a rockpool? Think of them as natural marine aquariums where animals and seaweeds can be found. Different species can be found at different parts of the shore; high, mid and low. Some residents are permanent but some others are temporary and may have been trapped there when the tide went out and they will leave on the next high tide. This means that sometimes you will find creatures you're not expecting!

Rockpool detectives...

- Check out the Seashore Code overleaf.
- Find a rockpool. Notice where the tide is – don't forget to keep checking otherwise it may come in and catch you unawares.
- Sit quietly for a few minutes, try not to cast a shadow. Watch to see if anything moves, e.g. shrimps, fish, snails or hermit crabs.
- Carefully lift small rocks to see what is hiding underneath them or on them. Replace the rocks exactly as you found them.



Which animal is a driller killer? Read the Amazing Facts cards to find out.

Why not photograph unusual finds and upload them to our facebook page; www.facebook.com/northyorkmoorsnationalpark



The Seashore Code

MarLIN
The Marine Life Information
Network for Britain & Ireland

Exploring the Seashore is interesting and fun but when on the shore we must follow some simple rules to stay safe and protect the seashore environment and the plants and animals that live there.

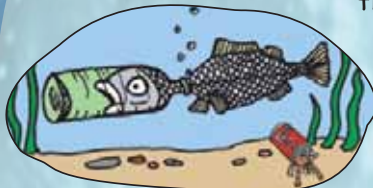
Before you go, tell someone where you are going, when you will be back and make sure you know what the weather and tides will be like. If you can, take a mobile phone.



Walk carefully over rocks, they may be slippery or unstable or you may kill or damage plants and animals. Cliffs should also be avoided as they may be unstable.

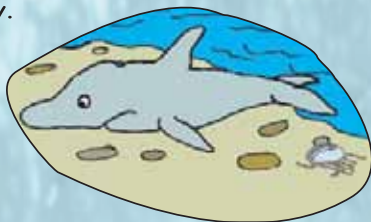


Do not take living plants or animals home with you. Try to take only photographs. If you do take shells home, make sure they are empty.



Take your litter home, it can be dangerous to people and wildlife and can ruin the scenery you are there to enjoy.

Report anything unusual that you find but do not touch anything if you are not sure it is safe.



Treat all living things with respect and replace any stone or seaweed exactly how you found it.

When you get home wash your hands !

For more information about Seashore life or to report what you find, visit:
www.marlin.ac.uk/learningzone



MarLIN, The Marine Biological Association, The Laboratory, Citadel Hill, Plymouth, PL1 2PB. Tel: 01752 633336. Email: marlin@mba.ac.uk

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An Artistic Impression



© Paleocreations

**An artist's
impression of
the sea during
the Lower
Jurassic Period**

.....

Notice the ammonites
swimming around. The
large creatures are
Ichthyosaurs. You can
see these as fossils in
Whitby Museum.

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An Artistic Impression



**An artist's
impression of the
sea during the
Upper Jurassic**

.....
Notice the ammonites
swimming around and
the crinoids attached
to the rocks standing
tall in the water. The
large creature is a
plesiosaur.

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3. Beach Art



Beach art could be a drawing in the sand, a sand sculpture or a pattern made of found objects on the shore...

What to do...

- Find an area where you can make your beach art without being threatened by the incoming tide.
- Look around for pebbles, shells, pieces of driftwood, seaweed etc. to make your pattern with.
- You might want to sort your finds before you start.
- Keep going until you have finished the pattern, run out of objects, or run out of inspiration!
- Take a photograph. Why not upload it to the National Park Face Book page:
www.facebook.com/northyorkmoorsnationalpark

.....
Don't forget to wash your hands when you've finished!
.....



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Here are some ideas
to get you started



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4. Alien Invaders!



During the last Ice Age the North Sea was covered by ice hundreds of metres thick. This ice had travelled hundreds of miles. We know this because when it melted it left many rocks and boulders which were different or 'alien' to the ones usually found in this area.

These rocks and boulders are called 'erratics' and we know they came from as far away as Scotland, the Lake District and even Norway!

Pebble scramble

Pick up as many pebbles as you can and use the pictures and descriptions to see if you have found any aliens!

Have a look at the map overleaf to find where your aliens have travelled from – who found the one that has travelled the furthest?

Granite – pink coloured, large grains, black specks.

Limestone – Pale grey colour, small white fossilised corals, shiny crystals.

Rhomb Porphyry – Grey or brown colour, some large crystals, fine grained.

Dolerite – Dark coloured but glittery. No obvious crystals. No layers.



Granite



Rhomb Porphyry



Limestone



Dolerite



.....
WARNING – Make sure you keep well away from the cliffs!
.....

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Where did they come from?





A Bit of Bother with a Boggle



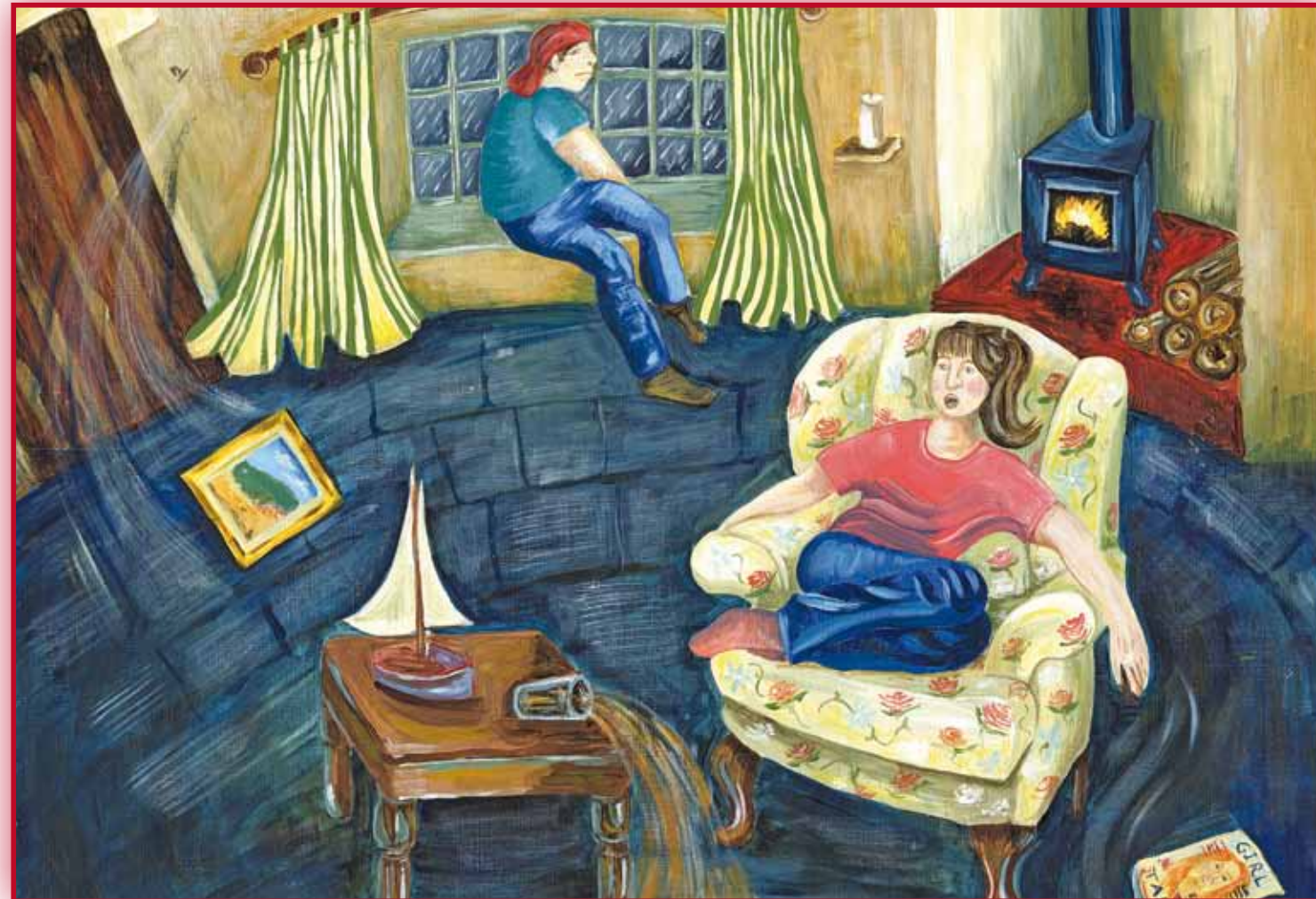
A Bit of Bother with a Boggle

Written by Sue Wilkinson and Illustrated by Julie McLinden

Jack was really fed up. He watched the rain streaming down the windows of the holiday cottage and kicked the table leg. A second later, just next to the window, a picture fell off the wall for no reason. It made Jack jump and he looked up. That wasn't the first time strange things had happened in their holiday cottage that week!

Jack's sister Rosie was sprawling in a large, flowery armchair, idly flicking through a magazine. She was cross because she couldn't get a signal on her phone to text her friends. She finished a bag of crisps and feeling too lazy to get up, she quietly stuffed the empty packet down the side of the cushion. A second later her glass of juice toppled over for no reason and spilt over the carpet.

Fearing another telling off, Jack and Rosie decided to make a sharp exit. Luckily it was beginning to fair up a bit. They put on their wellies and rushed out of the house, yelling to their Mum that they were just going down to the beach. Down the garden path they went, across the lane and down the rickety steps to the beach.



Jack could taste the warm, salty breeze on his lips. He gazed at the jumble of rock pools and dawdled towards them, making a trail in the sand as he dragged a long piece of seaweed behind him.

Rosie followed holding up her phone, still trying to get a signal. Jack came to a rocky ledge and sat down staring out across the sparkling surface of a large rock pool. Rosie grumpily kicked a pile of seaweed out of the way and sat down beside her brother.

“This must be the worst holiday ever” she said. Jack usually disagreed with Rosie just for the sake of it, but on this rare occasion he agreed. “Yeah, it’s really boring” he said as he tried to kick a limpet off the rock. A second later a big splash of water jumped out of the rock pool for no reason and soaked his trousers. “This place is really weird” he said. “Why do all these strange things keep happening?”

“That’ll be the boggle” said a strange voice. Jack spun round and there behind him was a tall man in a uniform. It said ‘National Park Ranger’ on his badge. “Hello” he said, “I’m Bill. Have you seen that big starfish by your foot?”



Jack and Rosie stared into the pool. Bill knelt down and pointed to a starfish. It was nearly as big as Jack's hand. "Look" said Bill, "There's a crab. If you're quiet we might be able to get a closer look." Jack and Rosie knelt down, their noses nearly touching the water and their bottoms up in the air. Bill gently picked up the crab by the edges of its shell. Its pincers waved at them and they could see its googly eyes on the end of little stalks.

Bill showed them how to tilt a rock carefully to have a look underneath and then how to put it back exactly as it was. Under the rocks they found squidgy sea anemones, lively hermit crabs and three different types of periwinkles. Bill told them all about limpets too, how each one is stuck to its very own spot on the rock and if you try to kick them off they won't be able to find their way back and could die. Jack and Rosie were fascinated by the weird and wonderful animals that were living right under their noses in the rock pool.



After a while Bill looked up and said ‘The tide’s coming in, it’s time to go. You should be on your way’. “OK” said Jack, “Thanks so much for showing us the rock pools. By the way, what’s a boggle?” he asked.

“Ah” said Bill. “A boggle is a little creature a bit like an elf or a goblin. There are lots of them in Yorkshire. They live in old cottages. If the householders are kind and keep the house tidy, the boggles are happy to help with jobs around the house, especially if you put a saucer of milk out for them. However, if the householders are mean or bad tempered or untidy, the boggle will cause a lot of mischief.”

“That explains a lot” said Rosie. “All sorts of odd things have been happening in our cottage and we’ve been getting the blame.”

Jack and Rosie climbed up the rickety steps, crossed the lane and ran up the garden path back to the cottage. They took off their wellies and stood them tidily in the porch. Then they went up to their bedroom and had a good tidy up.

When they went down to the kitchen for tea they told their Mum and Dad all about Bill and the amazing animals they’d found in the rock pools. “You must come with us tomorrow” said Rosie, “The seashore is brilliant”. Mum and Dad looked at each other in amazement, wondering if these tidy, cheerful children were really theirs.



That night when all was quiet, Jack and Rosie crept into the kitchen, found a saucer and poured a little milk into it and left it out in the garden for the boggle.

The next morning they all went for a walk along the beach. They didn't get very far because they spent so much time looking in the rock pools. Rosie told her Dad all about limpets and how to tell the difference between three types of periwinkle. They found crabs and sea anemones and dog whelks and even some small fish darting between the shadows.

When they got back to the cottage they opened the door into the kitchen and Mum gave a cry of surprise. "Gosh, thank you, whoever did the washing up this morning" she said. "It wasn't me" said Dad. "It wasn't me" said Jack. "It wasn't me either" said Rosie.

"That'll be the boggle" said Jack and Rosie together, quite relieved that the boggle had decided to be helpful instead of mischievous. Curious really that the worst holiday ever turned out to be one of the best!



So, if you live near Boggle Hole or if you are on holiday here, remember...

If you are kind with a generous mind

The boggle will care for you

But if you are seen as lazy and mean

Then you really must take care!



North York Moors National Park Authority

The Old Vicarage, Bondgate, Helmsley, York YO21 2NB

Tel: 01439 770657 | www.northyorkmoors.org.uk



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6. Brilliant Birds



Find somewhere comfy to sit and observe the birds for a while. Look down to the beach or just focus on what's around you. How many different birds can you spot?

Bird watching and identifying

Can you spot either a herring gull or oyster catcher? Use the pictures in the bag to help you.

Top tips for an even better bird watching experience!

Be quiet, still and patient – think like a hunter and stalk the birds carefully. Avoid sudden movement, don't wear bright or noisy clothing. Play the stalking game – see reverse.

Study a good field guide and ask other birdwatchers for help.

Draw a quick sketch of the bird – you don't need to be a great artist. Label with details of plumage – colours and patterns. Have a go now and sketch one of the birds you can see in the notebook provided.

Get some good binoculars!

When you see a bird, don't look down at the binoculars! Keep looking at the bird and raise the binoculars to your eyes then adjust the focusing wheel to get a sharp image.



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Games to play



Brilliant beak game

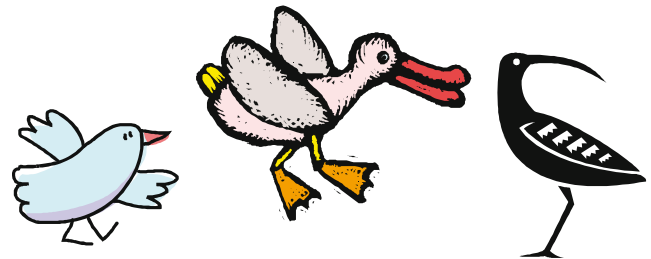
Birds have many differently shaped beaks. Some are pointed, some are curved, some are hooked and sharp, some are small and stubby. Birds have different beaks because they eat different foods. Have a go at being a bird for a few minutes and find out which shaped beak you would like to have...

...Give each person a 'beak' from the bag; either the spoon, the bamboo stick, the chop sticks or the tweezers. Spread the 'food' from the food bag on the ground. Now spread the people with the 'beaks' equally around the food and give them 30 seconds to pick up as much food as they can using their 'beaks'. Make sure nobody cheats! When the time is up count each person's hoard of food, how many different items did they catch. Swap beaks and try again. Which beak was best at collecting food? Think about the birds you know and how their beaks are shaped, what do you think they might eat?

Stalking game

Find somewhere with a bit of space.

Ask one person in your group to be a bird. They have to wear the blindfold and stand still. The rest of you are bird watchers who would like to catch a closer glimpse of the bird. You have to tiptoe quietly towards the bird without it being scared away. The person who is the bird, on hearing a noise from any of you, points in the direction of the noise. If anyone is standing there then they are out of the game. The person who wins is the person who is able to tap the bird on the shoulder without being caught.



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Spot a Herring Gull



Herring Gull

About: A large, powerful gull, the typical 'sea gull', about 60cm long.

What they eat: Omnivorous - a scavenger - its diet includes dead and live fish, shrimps, prawns, eggs, insects, birds, carrion, marine invertebrates, garbage and any other leftover foods. Watch your sandwiches and ice creams!!

How to identify: Gulls can be very difficult to tell apart, especially immature birds. The most familiar large gulls, adult herring gulls are silvery grey above with pink legs.

Where: Widespread - found on farmland, wetlands and around the coast. Nests around the coast, on cliff tops, roof tops and islands.

Fantastic facts: On average, herring gulls live for about 30 years. However, they are also known to survive for as long as 49 years. The primary predators of herring gulls are seals, owls and falcons.



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Herring Gull



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Spot an Oystercatcher



Oystercatcher

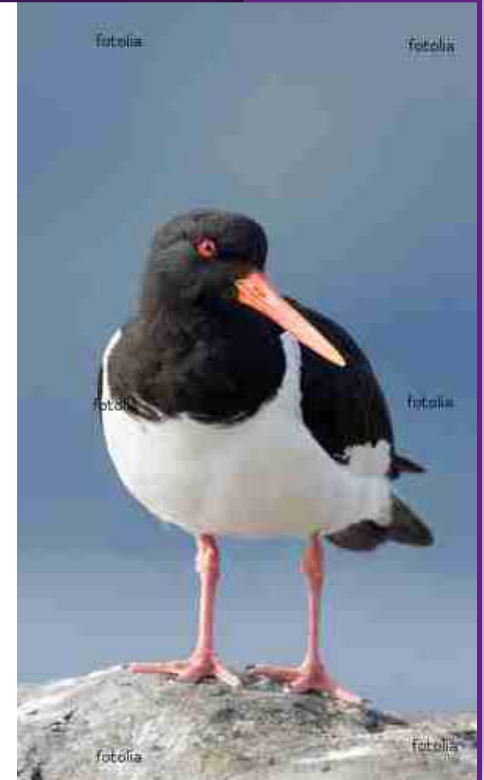
About: A common wader, 40cm long, very noisy, with a loud peeping call.

What they eat: Despite the name, oystercatchers are not known to eat oysters and in fact prefer mussels and cockles on the coast. They supplement this specialised diet of hard-shelled molluscs with softer-bodied invertebrates, such as crustaceans and mainly worms and insects inland.

How to identify: Unmistakeable. In flight, it shows a wide white wing-stripe, a black tail, and a white rump that extends as a 'V' between the wings.

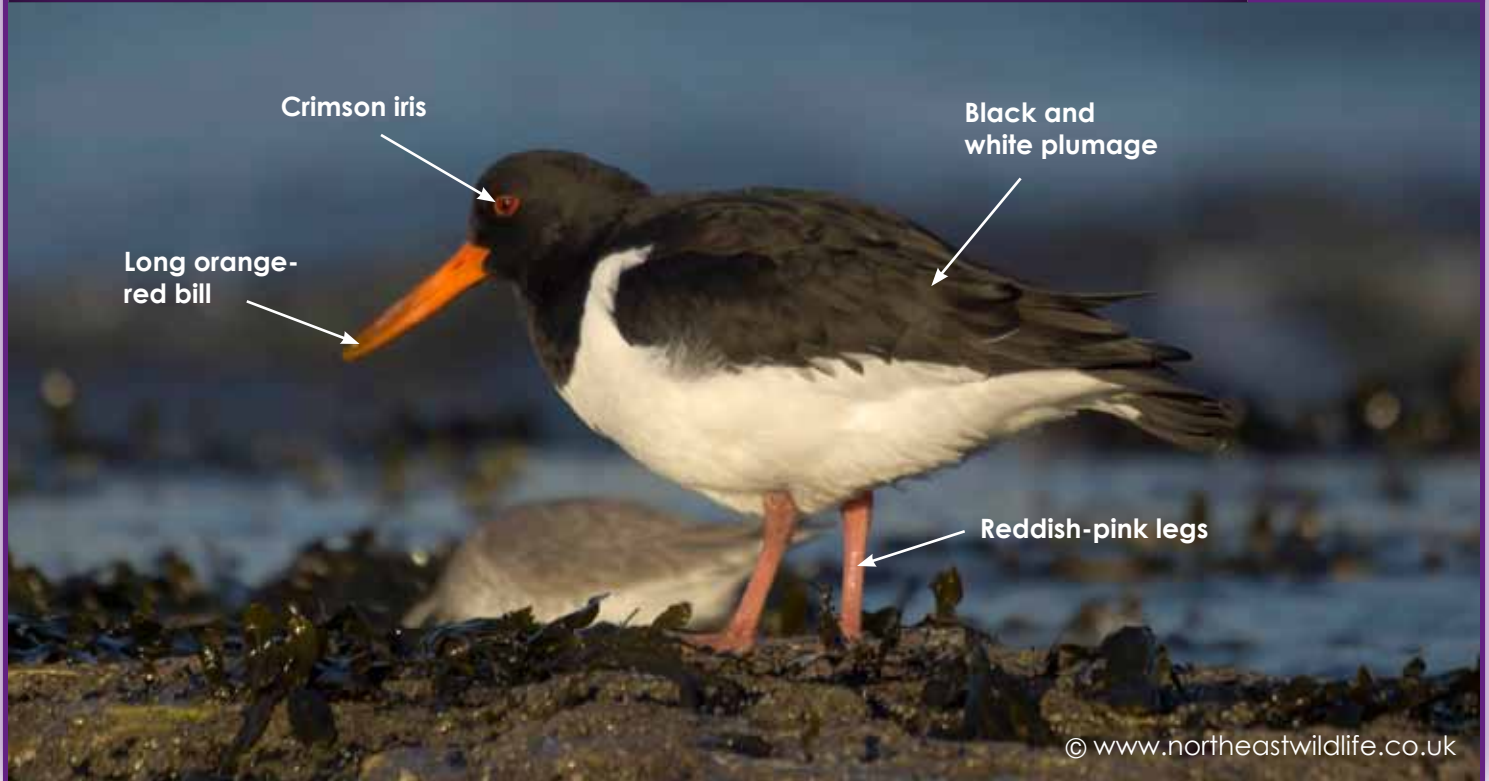
Where: Oystercatchers are primarily shorebirds, although they do sometimes breed inland by gravel pits and large rivers and lochs. They are more usually found at the coast during the winter.

Fantastic fact: An oystercatcher's bill is designed to break into shellfish and each individual inherits a particular technique from its parents. Because it eats cockles, the population is vulnerable if cockle beds are over exploited.



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Oystercatcher



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7. Wonderful Words Bucket



Draw a bucket in your notebook and fill it with wonderful words to describe where you are and what you are feeling. Use all of your senses!

What did
you hear?

What did
you feel?

What did
you taste?

What did
you see?

What did
you smell?

White fluffy clouds

Tuna
sandwiches

Slippery
seaweed

Gulls
mewing

Salty sea air on my lips

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Acrostic (Vertical) Poems



This poem is inspired by a walk on the shore. Notice how it does not rhyme but is full of images and feelings.

Limpet

L onely limpet locked on a rock
I n his pointed hat he waits patiently
M isty, salt spray showers his shell
P ounded by the waves he sits tight
E scaping only while the tide is high
T o feed hungrily before the tide turns



Choose something that you have seen or heard on your walk today. Use the words from your word bucket for inspiration. Write your word down the left side of a page in your notebook and use the letters to write a poem.
Or how about writing a limerick?

There was an old boggle from Bay
Who was mischievous and wicked all day
He turned the milk sour
And made farmers' wives glower
Find a horseshoe to keep him away!!!

Or can you complete this one?

There once was a shore crab called Ben
Who only had nine legs, not ten...

