



Llwybr Arfordir Cymru
Wales Coast Path

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CARDIFF BAY

Wales Coast Path and
Urdd walking routes: a
resource pack for a unique
outdoor walking and
learning experience.

Your walk today will take you along the Wales Coast Path.
It is one of a few coastal footpaths in the world. 870 miles /
1400 km of fantastic adventures await, not to mention
amazing wildlife, fascinating history and wonder-full legends.





Have a look at this map and see which part of the coast path is nearest your home. How about planning an adventure along it?



Dilynwch y Fesen!
Follow the Acorn!

- Llwybr Clawdd Offa
Offa's Dyke Path
- Cofgolofn Clawdd Offa
Offa's Dyke monument
- Llwybr Glyndŵr
Glyndŵr's Way
- Llwybr Arfordir Sir Benfro
Pembrokeshire Coast Path
- Llwybr Arfordir Cymru
Wales Coast Path
- Ffin Cymru/Lloegr
England/Wales border
- Parciau Cenedlaethol
National Parks
- Ardaloedd o Harddwch
Naturiol Eithriadol
Areas of Outstanding
Natural Beauty

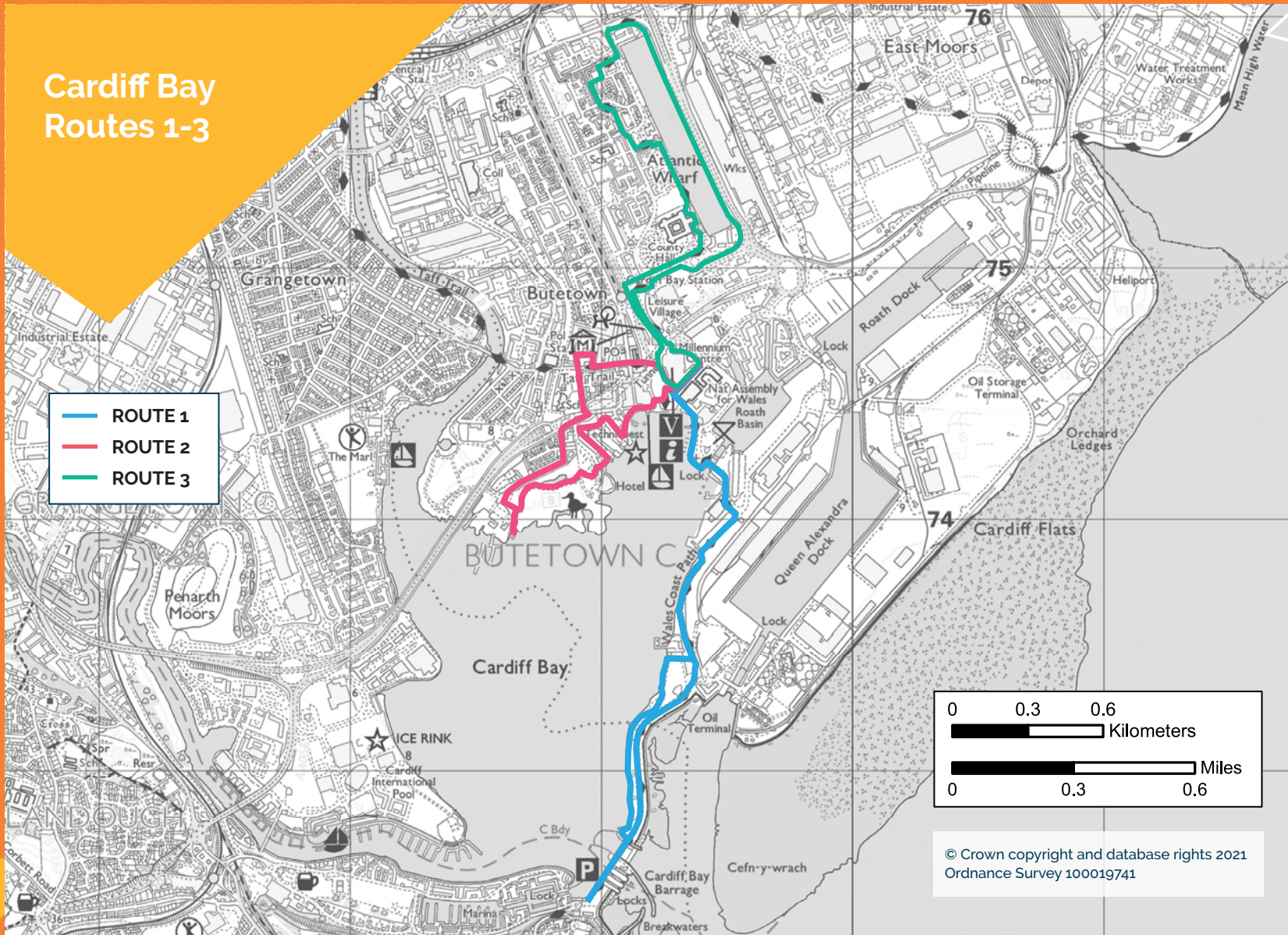


Yn cynnwys gwybodaeth Cyfoeth Naturiol Cymru © Cyfoeth Naturiol Cymru a Hawli Cronfa Ddata. Yn cynnwys data Arolwg Ordnans. Rhif Trwydded Arolwg Ordnans 100019741. Hawlfraint y Goron a Hawli Cronfa Ddata 2021. Gyda diolch i Rob Dingle, Swyddog Llwybr Cenedlaethol Llwybr Clawdd Offa. Contains Natural Resources Wales information © Natural Resources Wales and Database Right. Contains derived Ordnance Survey data. Ordnance Survey Licence number 100019741. Crown Copyright and Database Right 2021. With thanks to Rob Dingle, Offa's Dyke Path National Trail Officer.



Cardiff Bay Routes 1-3

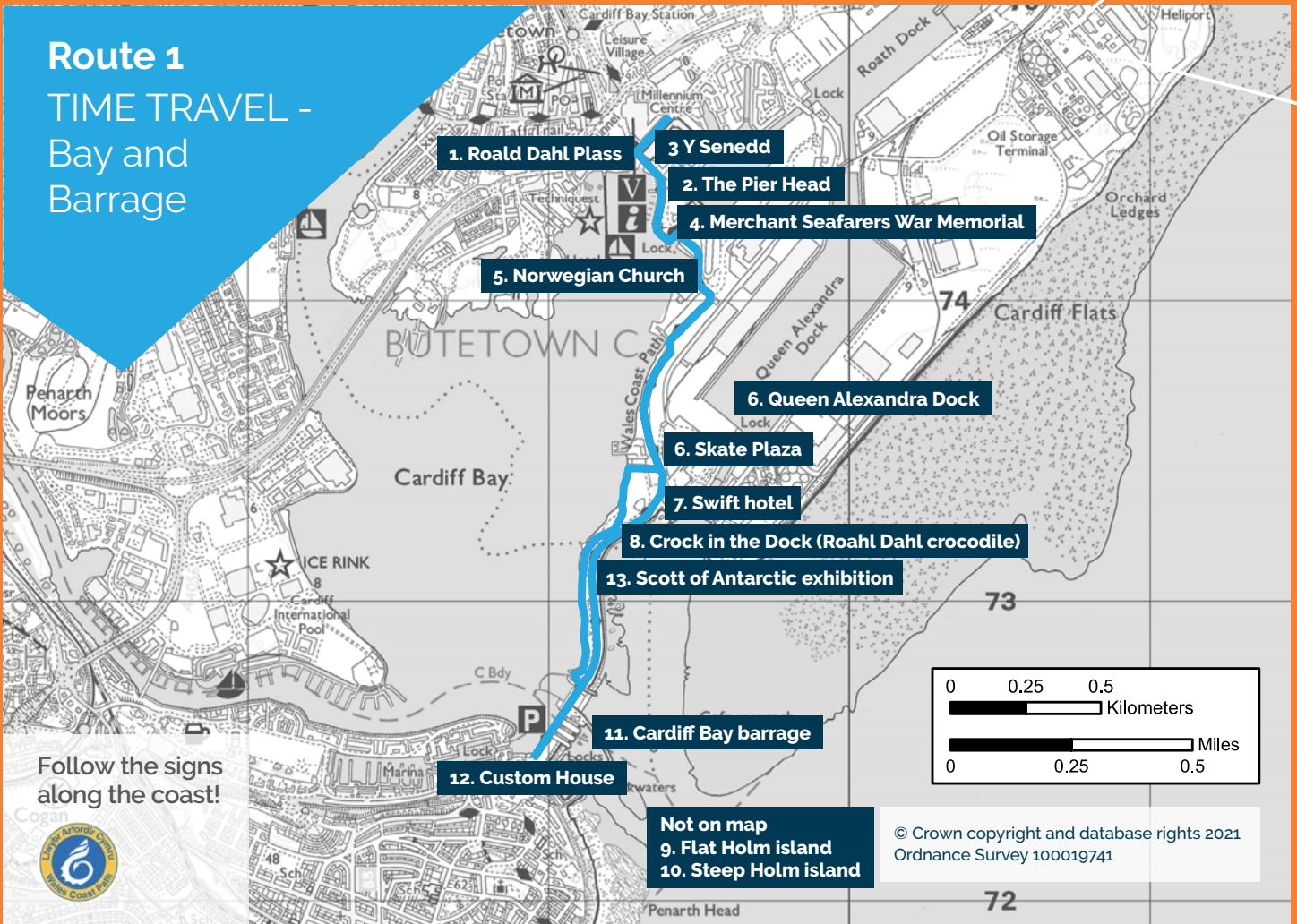
- ROUTE 1
- ROUTE 2
- ROUTE 3





Route 1

TIME TRAVEL - Bay and Barrage



Follow the signs
along the coast!



Distance: 5km / 3.1 mile (approx)

Walk time: 1 hour 4 mins

Add on an extra 5-20 minutes for each activity

Begin directly in front of Wales Millennium Centre Building

Cardiff Bay was once a busy industrial shipping port, a place where fortunes were made, deals were struck and great voyages began. The Third Marquis of Bute owned the docks during the late nineteenth century, and became the richest man in the world at that time.

If you travelled back in time to its heyday, you would now be standing in the heart of the busy docks, built to export coal from the Valleys to power the world. At its peak, it was one of the largest dock systems in the world. By 1913, 11 million tonnes of coal were exported from here year, making it the coal capital of the world and the furnace that fuelled the industrial revolution.



1. ROALD PLASS AND WATER TOWER SCULPTURE

A century or so, ago, in front of you would be the Oval Basin, which was a dry dock. It could be flooded to allow a ship or load to be floated in, then drained to allow that vessel or load to come to rest on a dry platform. That meant that ships could be repaired and maintained or even built in the dock and then floated and moved out to sea.

In 2002, the Oval Basin, that is now used for events - including the Urdd Eisteddfod every few years - was re named Roald Dahl Plass (Place in English), to honour the Cardiff-born children's author Roald Dahl. He was born in nearby Llandaff in Cardiff on 13th September 1916 to Norwegian parents.

At the north end of the Plass is the Water Tower. It stands about 21 metres high and when the weather permits, a stream of water runs down it. It is a piece of art by the sculptor William Pye.

ACTIVITY

This can be a verbal quiz, or if using the accompanying activity pack, the answer can be filled in there. It also contains an image of the Oval Basin in its heyday.

Q. Imagine flying above the Water Tower, what capital letter shape would it be if you were looking down at it from above?

A: 'D'

The tower was built over one of two D-shape sunken pits, which released water in and out of the dry dock.





2. THE PIERHEAD BUILDING

This beautiful, red brick building is one of the few still left from Cardiff Docks. It was built in 1897 as the headquarters for the Bute Dock Company that ran the docks. The orange coloured bricks are actually made of terracotta (similar to what garden pots are made of), made at the time near Ruabon in north Wales. In 1897 the Bute Dock Company was renamed the Cardiff Railway Company, and the company's Welsh language motto "wrth ddŵr a tân" ("by water and fire") was carved on the outside of this building.

Coal – much of it exported from these docks – was the fuel used to create the fire, which combined with water generated steam, to power the trains and great ships of the world at that time.

Local people often refer to the clock on the Pierhead Building as 'Baby Big Ben' or the 'Big Ben of Wales' comparing it to the great clock at the Houses of Parliament in London.

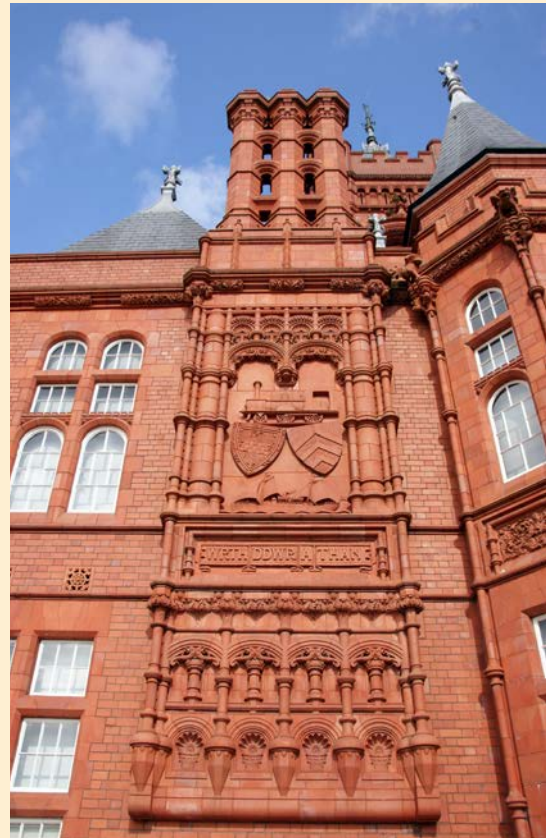
Today, the building is used by Welsh Government to provide information and show exhibitions.

ACTIVITY

This could be done as a verbal, on the spot activity, or using the activity pack. Depending on group size, consider splitting them into teams to search. First team to correctly spot the words, wins.

Q: Find the words "wrth ddŵr a tân" on the building

A: It's on the side facing the Oval Basin, below to heraldic shields and a train.






3. SENEDD

The Senedd is Wales' equivalent to 'The Houses of Parliament'. It is our seat of government. At its heart is the debating chamber. Here the 60 elected members, known as Members of the Senedd, regularly gather to represent the views of each region of Wales and to discuss and debate matters, so that they can take decisions on how our nation should be governed.

It belongs to everyone in Wales and as such is open for you to visit. It was designed to be sustainable and built of traditional Welsh materials such as slate and Welsh oak. It is heated using heat drawn from the earth – from the bottom of the old dock upon which it stands to be precise!

ACTIVITY

Find the Wales Coast Path Waymarker. Undertake this activity along the next stretch of the coast path just after the Senedd as you come to the edge of the Bay. As you join the Wales Coast Path ask the children to look at the floor and find the Wales Coast Path waymarker symbol embedded in the pavement. It looks like this:

You're now joining the Wales Coast Path. Look at the floor as you walk. See if you can find the Wales Coast Path waymarker symbol in the pavement. It looks like this: 

If you find one, how about taking a foot selfie with it?

ACTIVITY

Q: What do you think the waymarker symbol is?

A: The team who look after the Wales Coast Path, call this waymarker symbol 'The Dragon Shell'. The tail part represents the dragon found on the Welsh flag and the shell is of a type you'd find on beaches along the coast of Wales.

ACTIVITY

Ask the children to design an alternative waymarker symbol for the Wales Coast Path using their activity pack. It needs to represent:

- A path that stretches all along the coast of Wales
- A path for walking
- Nature
- Relaxing in the outdoors
- A path along the edge of the land, by the sea
- Wales



4. MERCHANT SEAFARERS' WAR MEMORIAL

This giant head lying on its side is the Merchant Seafarers' War Memorial. Many seamen who settled in Tiger Bay worked for the Merchant Navy, delivering goods across the globe during World War II. Some of them sailed out of Cardiff docks and never came home, their ships having been captured or torpedoed by enemy forces. This sculpture by Brian Fell is a tribute to them and all Merchant Seamen who died during World War II.

ACTIVITY

Walk around it and try to work out what it is, other than a sculpture of a face.

A: It's part of a Ship's Hull



5. NORWEGIAN CHURCH

This lovely wooden church once stood near to where Wales Millennium Centre now stands, but was moved during the redevelopment of Cardiff Bay to where you see it now. Many sailors and seafarers from Norway visited the port of Cardiff, bringing goods in and out of the port, and many settled here. The church was therefore built as a landmark and meeting place for Norwegian seafarers and their families. Harald Dahl, father of the famous author Roald Dahl, was one such Norwegian seafarer who settled here for a time. That is how, as a baby, Roald Dahl came to be baptised in this church.

Today it is no longer a church, but an arts centre and café.



6. CARDIFF BAY SKATE PLAZA & QUEEN ALEXANDRA DOCK

We're just passing Cardiff Bay's Skate Park. To the left you can see Queen Alexandra Dock and beyond it, though difficult to see, is Roath Dock.

When coal powered the world back in the mid 1800s, those who owned the coalmines of the Welsh Valleys competed against each other to build the biggest, best and most efficient docks. Frustrated that not enough of their coal could be exported through Cardiff docks, competing coal pit owners built rival docks in nearby Penarth in 1865 and Barry in 1889. This spurred the owners of Cardiff Docks to develop and expand; Roath Dock opened in 1887 and Queen Alexandra Dock twenty years later.

It was from Roath Dock that Captain Scott's crew embarked on an expedition to Antarctica, leaving the port of Cardiff on June 15, 1910. A huge crowd gathered on the dock and on nearby Penarth Head to see the expedition's ship, the Terra Nova, towed out of Roath Dock flying the coat of arms of Cardiff and the Welsh dragon at her masthead. Captain Scott started his fateful voyage from here, as Cardiff played a major role and contributed more money than any other UK city to the expedition.

Captain Scott and his team were racing to be the first to reach the South Pole. This involved braving a dangerous sea voyage to the southernmost part of the globe and then crossing 1,500 kilometres of ice, snow and glaciers to ensure that a British team were the first to the South Pole. Captain Scott and his party of five explorers made it to the South Pole on 17 January 1912, only to find a Norwegian flag already placed there, showing that the Norwegian explorer Roald Amundsen and his team had beaten them to it. While Amundsen's team returned home safely, Captain Scott and his team all died as they attempted the return trek to base camp.

As you near the barrage you'll find an exhibition with lots more information about Captain Scott and his team's great adventure. (Worth a visit on the return leg of the walk).



7. THE SWIFT HOTEL

Can you see the v shaped sculpture?

ACTIVITY

What do you think it is?

A Swift Tower

Visitors come from all over the world to visit Cardiff Bay, but the guests at this particular hotel are probably among the smallest. This is a swift tower. It was built by the RSPB (Royal Society for the Protection of Birds), to provide 90 nest sites for these little birds that make an epic 6,000-mile migration from Africa to Britain in early May. They stay here for only about three months a year, long enough to breed, lay their eggs, hatch their chicks and prepare those chicks for the long migratory journey through France and Spain and back to Africa.

The numbers of swifts returning to Britain each year is falling due to loss of nest sites. These birds like to nest under the eaves of old houses and churches, and with renovations, re-roofing and demolitions, swifts lose their precious nesting spots.

If their numbers continue to decrease at the current rate, we might lose them as a breeding bird in Wales within the next 20 years, so volunteers monitor the numbers of returning swifts and try to count how many chicks they produce each year.

ACTIVITY

These are some maths based activities. Space for working out is provided in the activity pack.

Q: There are 90 boxes in the tower. Swifts lay a clutch of 2-3 white eggs in May-June. If each pair, in each box lay 3 eggs, how many eggs would be laid in the tower?

A: $90 \times 3 = 270$

Q: If 60% of the chicks from these eggs survived to fledge and start the long journey back to North Africa from Cardiff Bay, how many would that be?

A: 60% of 270 = 162



8. PIRATE PLAYGROUND – CROCK IN THE DOCK

This wonderful crocodile sculpture will be recognisable to any of you who've read Roald Dahl's 'The Enormous Crocodile'. It is another way that Cardiff Bay has honoured this much-loved children's author. But, did you know that Roald Dahl was also a spy, an ace fighter pilot, a chocolate historian and a medical inventor?

ACTIVITY: Who can name a Roald Dahl Book (other than The Enormous Crocodile) / who can name 3 Roald Dahl Books / which is your favourite Roald Dahl book? This activity could be done verbally, or using the space in the activity pack which includes some additional questions.

ANSWERS COULD INCLUDE: James and the Giant Peach, The BFG, The Twits, The Witches, Matilda, Charlie and the Chocolate Factory, Fantastic Mr Fox, Danny Champion of the World, Esio Trott, The Enormous Crocodile, The Magic Finger, George's Marvellous Medicine, Revolting Rhymes, The Minpins.

9. FLAT HOLM

As you approach the barrage, if you look out to sea, you'll see a small island. This is Flat Holm, a small island with a BIG story! Early Celtic Saints, Monks, Anglo-Saxons, Vikings, Pirates, silver miners and smugglers have all left their mark upon the small, wildlife rich island, five miles off the coast of Cardiff. It was fortified in Victorian times and again during World War II, though it is perhaps most famous for receiving the very first radio signal.

On May 13th 1897, Guglielmo Marconi transmitted the first ever wireless signals over water, from the headland known as Lavernock Point to the west of Penarth, to a mast on Flat Holm Island, a distance of about three miles. This first message, transmitted in the dot – dash of Morse Code read: 'Are you ready?' ...And they were.

ACTIVITY

Included in the activity pack is a Morse Code chart, showing the dot and dash pattern for each letter of the alphabet. Use it to illustrate how Marconi communicated 'Are you ready?' across from Lavernock Point to Flat holm and ask the children to work it out.

ANSWER:

... - - - - - - - - - - - - -
A R E Y O U R E A D Y



A Dot dash

R Dot dash dot

E Dot

Y Dash Dot Dash Dash

O Dash Dash Dash

U Dot Dot Dash

R Dot Dash Dot

E Dot

A Dot Dash

D Dash Dot Dot

Y Dash Dot Dash Dash

10. STEEP HOLM ISLAND

Beyond Flat Holm, if the weather permits you can see the island of Steep Holm. The island was named for its steep limestone cliffs, that rise over 60 metres above sea level. Humans occupied the island as far back as the Stone Age and in its time it has sheltered Vikings, been a home to St Gildas and from 1150 to monks who established a priory there. Today it is a haven for wildlife: a nature reserve and bird sanctuary and also a designated Site of Special Scientific Interest due to its rare plants and flowers.

ACTIVITY

The activity pack includes a little more information on St Gildas and a picture of him to complete.

11. CARDIFF BAY BARRAGE

We're now on the Cardiff Bay Barrage. It was built in the 1990s and has won a number of awards for its design and construction. It keeps water from the River Taff and the River Ely from flowing freely into the Bristol Channel, holding the water in the Bay to create the 2 km square freshwater lake of Cardiff Bay. To do this it uses the huge sluice gates that you can see in front of you. These allow river water in and out of the salt water of the Bristol Channel in order to maintain a constant level of water in the Bay. The barrage also includes a fish pass to allow salmon to reach breeding grounds in the River Taff from the seawater of the Bristol Channel and three locks for boats to come in and out of the Bay.



12. THE CUSTOM HOUSE

The Custom House sits on the site of an old, notorious smuggling inn – The Penarth Head. In the 1700s it was home to the renowned smuggler and Penarth born pirate, Edward Edwards. He would hide brandy in the cellars beneath the Inn from the King's Customs men. In 1865, the King's men got their own back by demolishing the smuggling den and building a tax collection house instead where papers for goods coming into and out of the port were checked and taxes paid.

These days is it a busy bar and restaurant.

13. SCOTT OF THE ANTARCTIC EXHIBITION

See point 6 in this pack for additional information about Scott of the Antarctic.

This is a free exhibition panel. Allow 5-10 minutes to take a look and read it. This activity can be undertaken either verbally and in teams, or by referring to the activity pack for individual activity.

ACTIVITY QUICK FIRE QUIZ

If the tide is far enough out, explore some of the beach caves.

Allow 15 minutes for this activity.

Q: What was the name of Captain Scott's Expedition Ship that sailed from Cardiff Bay?

A: The Terra Nova

Q: At which dock did Captain Scott's crew embark the Terra Nova on June 15, 1910?

A: Roath Dock

Q: Which two flags was the Terra Nova flying at her mast-head that day?

A: The coat of arms of Cardiff & The Welsh dragon

Q: Which of the Poles was this expedition trying to reach, the North or South Pole?

A: South Pole / Antarctica

Q: Which Nation had beaten Scott's team to the South Pole? Was it:

A Sweden B Finland C Iceland D Norway

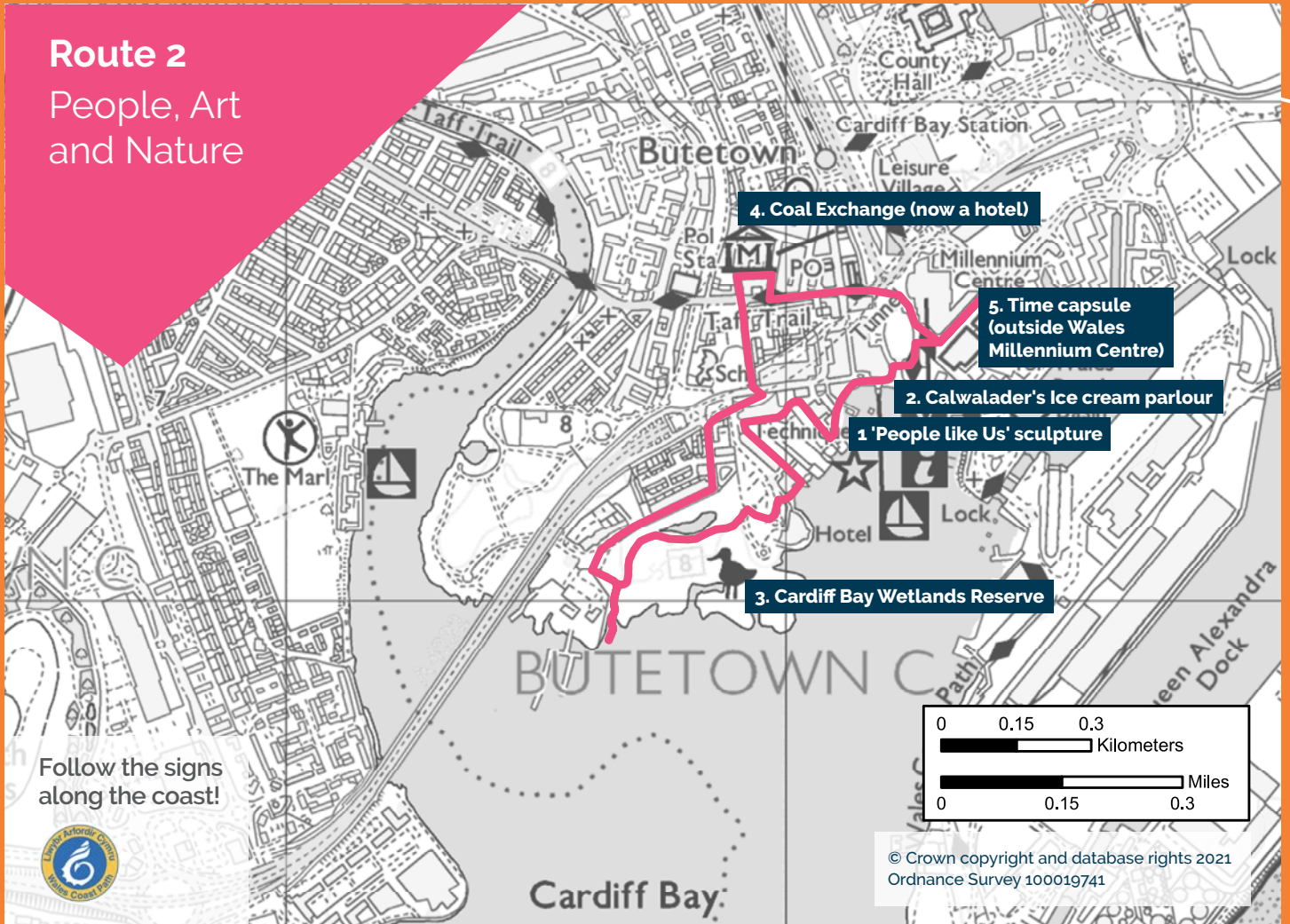
A: Norway – a team led by Roald Amundsen

ADDITIONAL CLOSING ACTIVITY: At the end of the walk, challenge the group to recall, in order, what they've seen. They could even give each element marks out of 5 to find out which bits engaged them most.



Route 2

People, Art
and Nature



Distance: 2.9km / 1.8 mile (approx)

Walk time: 35 mins

Add on an extra 5-20 minutes for each activity

Cardiff Bay was once one of the world's busiest industrial shipping ports, a place where fortunes were made, deals were struck, and great voyages began. The Third Marquis of Bute owned the docks and became the richest man in the world at the time.

If you travelled back in time to its heyday, you would now be standing in the heart of the busy docks, built to export coal from the Valleys to power the world. Around it developed a community made up of sailors, dock workers and their families from all across the World. The community became known as Tiger Bay. Later, accommodation was built and the region became known as Butetown. On this walk, we'll discover how man, machine and wildlife have come to live and interact at this water's edge and how black gold (coal) made it all happen!



1. 'PEOPLE LIKE US' SCULPTURE – JOHN CLINCH

This sculpture is in one of the busiest areas of Cardiff Bay, amidst the cafes, restaurants and bars of Mermaid Quay. It's called 'People Like Us' The sculptor John Clinch wanted to make something that celebrated the diverse cultural and ethnic mix of people who lived and worked in the dockland area of Cardiff.

This area of Cardiff is known as Butetown. It was named for the 2nd Marquess of Bute who built a housing estate here for dock-workers early in the 19th century. For a long time, this area was known as Tiger Bay. Dockworkers and sailors from across the world settled here and created a multi-cultural community of over 45 different nationalities, each with their different and colourful cultures, languages and religions. It created the multicultural character of the area that is still a part of the life of Cardiff Bay today. This vibrant cultural mix nurtured some famous artists and performers including singer Dame Shirley Bassey who grew up in Tiger Bay.

2. POEM NEXT TO CADWALADER'S ICE CREAM PARLOUR

On the floor you'll find a poem cast in steel. It's by John Masefield and charts the course of three different ships and their changing cargo through time.

ACTIVITY

There are 22 steel sculptures inspired by this poem dotted around the surrounding buildings. How many can you find in the time it takes to eat an ice cream (approx. 5 mins)

SEE ACTIVITY PACK for an additional activity which involves noting a favourite line or two from the poem and explaining why. After that there's space to write a short poem about a journey.



3. CARDIFF BAY WETLANDS RESERVE

When the barrage was built, the tidal coast of Cardiff Bay was transformed into a freshwater lake, which radically changed the habitat for local wildlife. This Wetlands reserve is an attempt to compensate for that and care for the new mix of wildlife that the freshwater lake of Cardiff Bay has attracted.

Wetlands are the name given to habitats between water and land. They provide important living and feeding areas for many birds, fish, animals and plant species. The reed-beds here are home to a number of bird species including reed buntings, reed warblers and sedge warblers who build their nests among the reeds. Other bird species spend a lot of time in the reserve because of the available fish to feed on, so look out for grey herons and kingfishers among others as well as the odd kestrel. These reed-beds are also important for fish, insects such as dragonflies and black-tailed skimmers, invertebrates and amphibians. It's a place teeming with wildlife all year round, but the types of bird depend on the season with some birds like teal and stonechat migrating here in the autumn and winter.

ACTIVITY

What birds, animals and insects can you find using the interpretation boards around the Wetlands reserve to identify them and find out more. This can be done verbally or by noting the wildlife spotted in this section of the activity pack.

4. THE COAL EXCHANGE

On your way back to Wales Millennium Centre, take a short detour into Mount Stuart Square to take a look at The Coal Exchange – now a hotel. Built in 1888, it was the hub of global coal trade where the international price of coal was determined. Coal owners, ship owners and their agents met daily on the floor of the trading hall to strike deals and make agreements bound by a handshake. In fact, it was here, at the Coal Exchange that the first ever £1,000,000 cheque was signed in 1904.



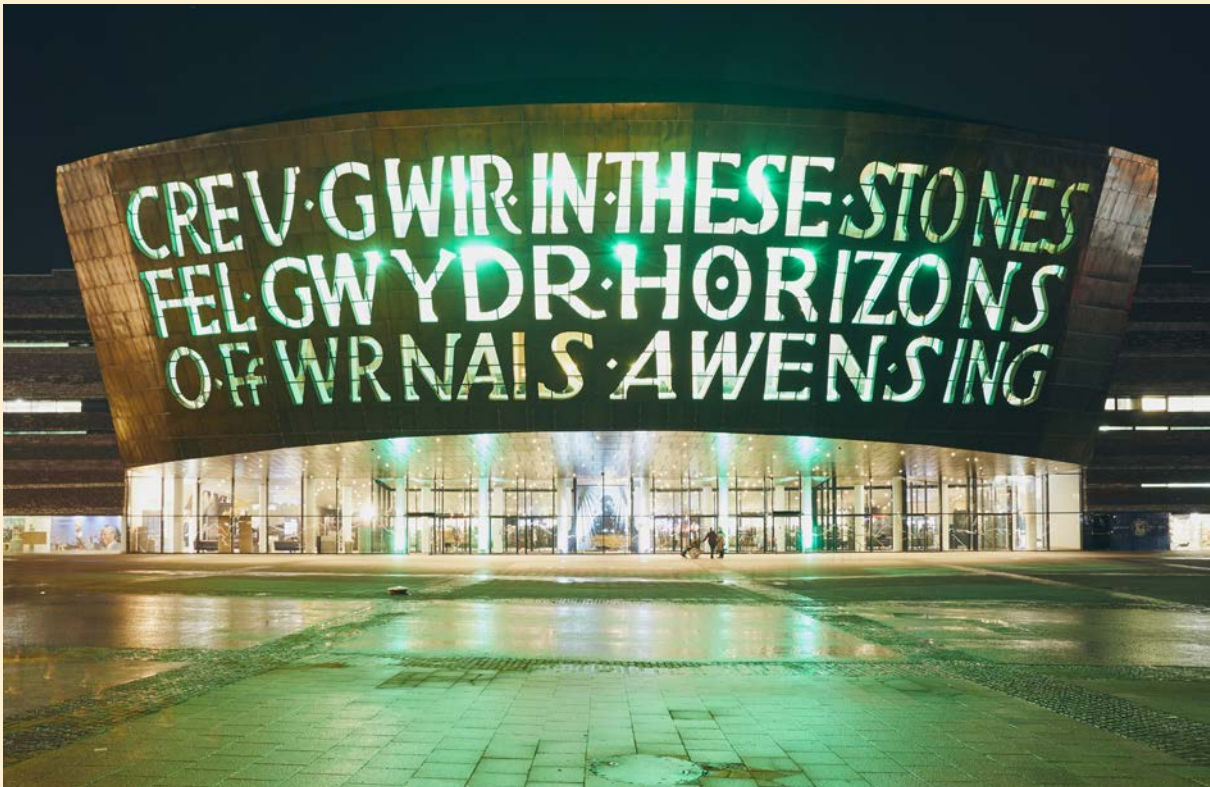
5. TIME CAPSULE

Now that you're back right in front of Wales Millennium Centre, just beneath the huge letter windows of Gwyneth Lewis' words: In these stones horizons sing / Creu gwir fel gwidr o ffwrnais awen, look down at your feet. You're standing in a bit of a magical, time travel spot. Beneath the paving is a time capsule, buried in 2004 just before the Wales Millennium Centre opened. It includes things from that time that children wanted to put in to show children of the future what life was like at the beginning of the 21st Century in Wales. A time capsule is an air-tight jar of sorts filled with small items that will tell people in the future about life at the time the capsule was buried.

ACTIVITY

What five items would you include in a time capsule today to tell children 100 years from now something about your life today? Remember that they need to be fairly small items that can fit in something the size of a large jar or a sandwich box. This can be done verbally or by using the resource pack.

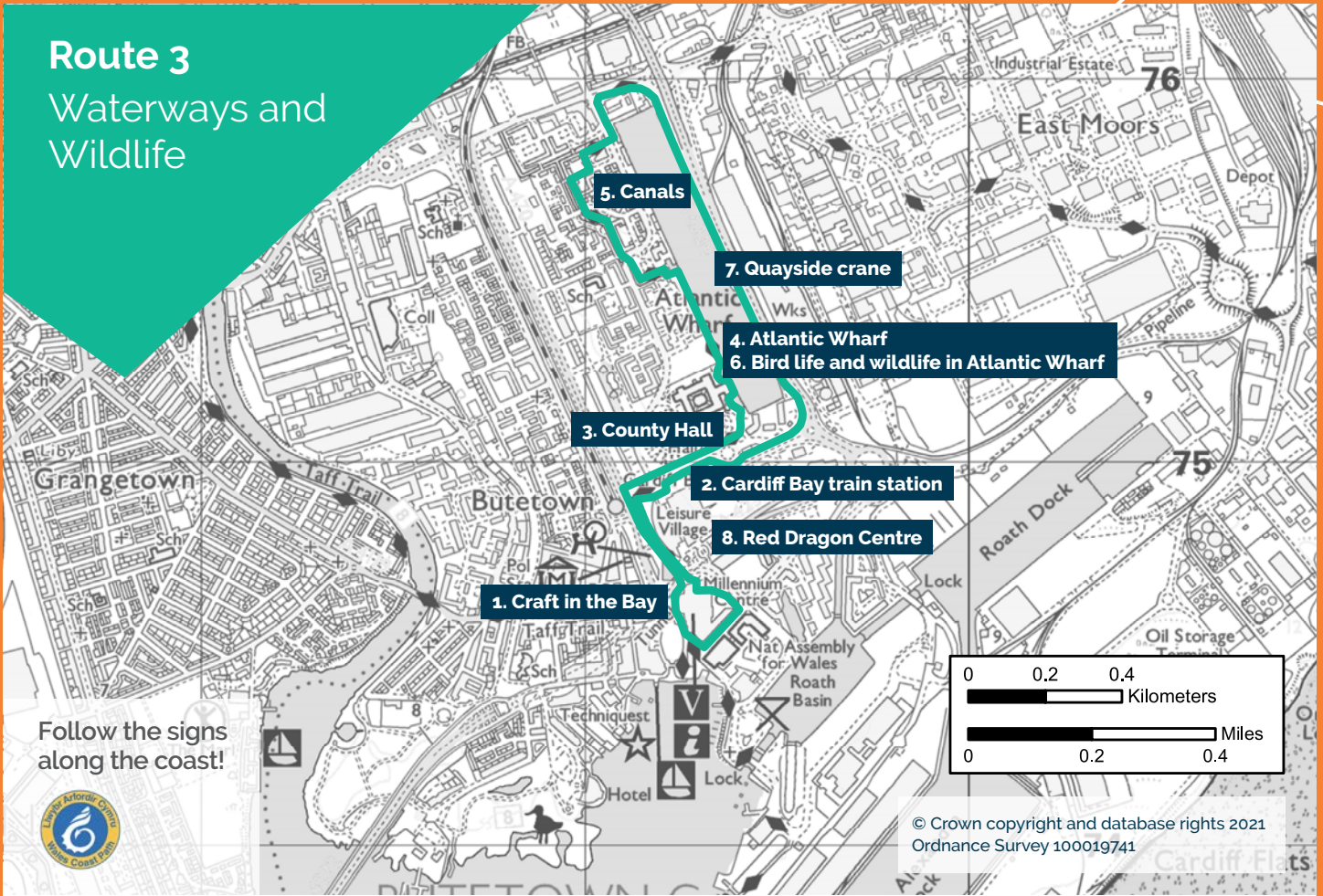
ADDITIONAL CLOSING ACTIVITY: At the end of the walk, challenge the group to recall, in order, what they've seen and respond verbally. They could even give each element marks out of 5 to find out which bits engaged them most.





Route 3

Waterways and Wildlife



Distance: 4km / 2.4 mile (approx)

Walk time: 48 mins

Add on an extra 5-20 minutes for each activity

Standing by Wales Millennium Centre today, it might be difficult to imagine that Cardiff Bay was once a busy industrial shipping port, a place where fortunes were made, deals were struck and voyages began. The great industrial port of Cardiff Docks was one of the largest dock systems in the world during its heyday. It declined in importance after World War II, until by the 1970s, much of this area was unused and had become fairly derelict. In the 1990s a plan was made to transform the old docks area into the Cardiff Bay you see today, a place of culture, entertainment, business, government and wildlife as well as an area where people enjoy living close to the water.



1. CRAFT IN THE BAY

We begin our walk outside Wales Millennium Centre, Wales' international centre for the performing arts, then follow the Wales Coast Path around the side of the Red Dragon centre, keeping it to your right. If you look across to the left, you'll see a long wood, glass and metal building. Today, this is Craft in the Bay, home to Makers Guild Wales, a group of some of Wales' finest craft makers. Here you can see exhibitions and displays of beautiful hand-made items in metal, wood, paper, plastic leather and fabric. The building is known as 'the D Shed'. It is one of the last remaining Cast Iron buildings from the original Cardiff Docks. It was used as a warehouse, and once stood on another site within the docks. It was dismantled in the 1990s and re-assembled on this site, opening as Craft in the Bay in 2002.

2. CARDIFF BAY TRAIN STATION

The first railway line to Cardiff Docks was opened in 1840, and this was the original station. It was called Cardiff Bute Dock station. At first, the station building became the offices for Taff Vale Railway Company but later housed the consulates of Netherlands, Belgium, Portugal and Brazil, with separate flagpoles for each nation. It was a place where sailors, merchants and dock workers and their families from those parts of the world, could get help and protection from their own governments if they faced difficulties or got into trouble with the law here in Cardiff.

Like most docks around the world, this could be a dangerous place. Merchant seamen arrived in Cardiff from all over the world, only staying for as long as it took to land their cargo and reload their ships. Disagreements would often lead to fights and goods were illegally traded. There were murders and lesser crimes. Many went unsolved and unpunished, the perpetrators having sailed for other ports. Others required careful handling and so the consulate was a very important place for visiting sailors and merchants. At the consulate, they could also get advice and support with any trading difficulties they might be having with the Dock authorities.

Today, the station links the city of Cardiff to Cardiff Bay and people living and working in the Bay use the train station daily, while tens of thousands of visitors and those coming to enjoy the area's arts, culture and restaurants also pass through it each year.



3. COUNTY HALL

This large, brown brick building is the headquarters of Cardiff Council. It is from here that the city of Cardiff is governed. The building includes a Council Chamber and several committee rooms where Council members meet to discuss how best to run the city, and take important decisions on behalf of all those who live and work in Cardiff.

4. ATLANTIC WHARF

By 1850, ships using Bute West, which was the first dock here, were having to wait as much as a week to get a berth in the dock! As a result, Cardiff was losing business as shipping started to use other ports instead. This long rectangle of water, originally called the East Bute Dock, was built to ease that situation and help to grow the Dock's facilities. It was opened by the Third Marquess of Bute in 1859. He was just 12 years old at the time, and destined to become the richest man in the world due to the trade that came through these Docks.

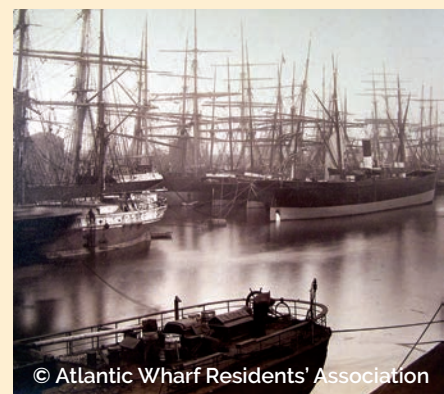
Today it is a quiet, peaceful place, but once it was so crowded it was said you could walk from one side to the other across ships, because they were so crammed together!

Ships would have come into this Dock to collect cargoes of coal from the Valleys, brought down on a railway that came to the edge of the dock. The large warehouses alongside the dock were once used to store goods ready to load onto vessels mostly from the industrial areas of the valleys, or cargoes delivered into Cardiff from ships and awaiting to be transported on the railway across the length and breadth of Britain – from bananas to tobacco, building materials to sugar. Today, those warehouses are now places to live and work as well as hotels, bars and restaurants, and this area is now known as Atlantic Wharf.

ACTIVITY

Refer children to their activity pack for a maths conundrum, as they take on the role of managing the ships in and out of Atlantic Wharf.

As you can see from the picture below, sometimes this dock was so full that you could run across the ship decks from one to the other!



© Atlantic Wharf Residents' Association



ACTIVITY

Imagine you were the dockmaster, responsible for which ships could come in and where they should be moored. Use maths skills to work out which of these ships below would make best use of the available space left to dock overnight. Refer to the activity pack for more details.

The task is to fit as many ships as possible into the areas available for mooring within East Bute Dock (now Atlantic Wharf) on a busy evening.

ANSWER:

AREA A	AREA B
The Valentina, a schooner – 39m long, 10.5m wide	B The Mary-Anne, a barquentine, 54m long, 15.5m wide
A Swift, a clipper 54 m long, 10 m wide	B The Victoria, a barquentine, 60m long, 18m wide
A The Armadillo, a brig 35m long, 9 metres wide	B The Invincible, a four-masted barque, 67 metres long, 19 metres wide
A Elizabeth, a clipper 53m long, 10m wide	TOTAL WIDTH = 52.5
A The Flying Fox, a brig 30m long, 8 metres wide	
A Neptune, a schooner 38 m long, 11m wide	

In addition, two of either Hope, Petit or The Indefatigable being short enough and narrow enough at 7 or 7.5 metres wide, can be moored nose to tail or prow to stern in area B and the one of these left over moored in area A.

QUESTION: Which ship or ships must be turned away?

ANSWER: The Cutlass. it is too long to be admitted into the available mooring area on this particular night.



5. CANALS

About half way along the dock, turn left. Here you can explore a network of canals crossed by bridges.

The Glamorganshire Canal was the first canal system that connected Cardiff and the industrial centres of the South Wales Valleys. It was built in 1794 to transport iron and coal for export by ship to the world. This was initially the main way that these industrial goods such as steel, coal etc., were transported before the arrival of the railway connecting Merthyr and the valleys to Cardiff Docks some 50 years later.

The canals that you see near Atlantic Wharf today are those left of the Dock Feeder Canal system constructed around 1840 to supply water to Cardiff Docks, so that they could operate even when the tide was out. They made Cardiff one of the world's first 24 hour docks and this helped lead to the rapid growth in the use of the docks and trade through it.

6. BIRDLIFE & WILDLIFE

Today, you're more likely to see birds on the waters of Atlantic Wharf rather than boats. Great Crested Grebes and other wildfowl often nest around Atlantic Wharf and the nearby canal system. Coots and swans are also regulars, so keep an eye out for them. During the summer you may also catch sight of dragonflies and damselflies too.

ACTIVITY

BIRD AND WILDLIFE SPOTTING

An identification table within the activity pack will help you identify different species of waterfowl and insects and log how many of each have are spotted.



7. THE QUAYSIDE CRANE

As you walk around Atlantic Wharf you'll notice an old red crane. This has become known as 'The Quayside Crane'. It is an electric crane, built in 1933 by Stothert & Pitt Ltd for the Great Western Railway Company. It was originally used for ship repair and maintenance work, but was later used to lift general cargoes of up to 15 tons in and out of the hulls of ships. It was last used in January 1987.

ACTIVITY

'The Quayside Crane' isn't a very imaginative name for the crane. Come up with a better one that takes into account the crane's shape, purpose, colour and anything else you think relevant.

Each individual could do this, or they could be split into groups. You could even get everyone to vote on their favourite name.

8. RED DRAGON CENTRE

On your return journey you can cut across through the Red Dragon Centre, home to numerous restaurants, a cinema and home to Capitol FM, Cardiff's commercial Radio Station.

ACTIVITY

CLOSING ACTIVITY

At the end of the walk, challenge the group to recall, in order, what they've seen. They could even give each element marks out of 5 to find out which bits engaged them most.



Llwybr Arfordir Cymru
Wales Coast Path

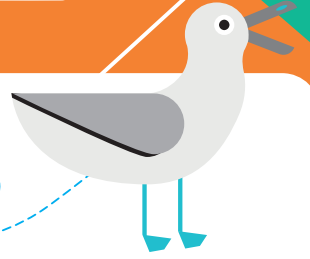
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CHILDREN'S ACTIVITY PACK



There's lots to see, do, create and learn as you explore the Wales Coast Path. This pack is filled with hints and tips to help you enjoy your adventure.





1. ROALD PLASS AND WATER TOWER SCULPTURE

Q. Imagine flying above the Water Tower, what capital letter shape would it be if you were looking down at it from above?

A:

Here's a picture of the Oval Basin in its heyday





2. THE PIERHEAD BUILDING




Q: Imagine flying above the Water Tower, what capital letter shape would it be if you were looking down at it from above?

A: Where is it?

3. Y SENEDD

Just after the Senedd Building, as you come to the edge of the Bay and join the Wales Coastal Path, as you join the Wales Coast Path look at the floor and find the Wales Coastal Path waymaker symbol embedded in the pavement.

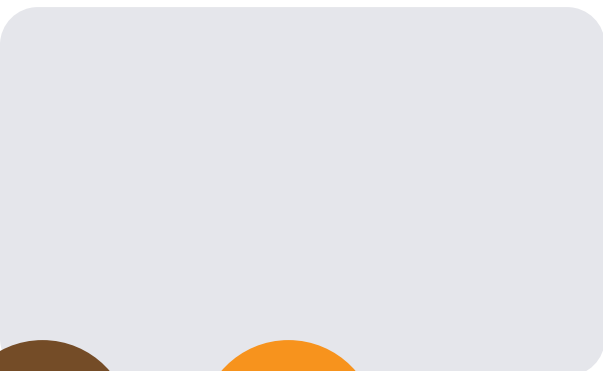
It looks like this:  If you find one, how about taking a foot selfie with it – either on your own or with friends.

Q: What do you think the waymarker symbol represents? Have a look at the shapes it's made from.

A:

If you were to design a waymarker symbol for the Wales Coastal Path, how would it look? Think about what it needs to represent, including:

- A path that stretches all along the coast of Wales
- A path for walking
- Nature
- Relaxing in the outdoors
- A path along the edge of the land, by the sea
- Wales





4. MERCHANT SEAFARERS' WAR MEMORIAL

Q: Walk around the Seafarer's War Memorial. What is it other than a sculpture of a face?

A:

7. THE SWIFT HOTEL

Can you see the v shaped sculpture?

Q: What do you think it is?

A:

Q: There are 90 boxes in the tower. Swifts lay a clutch of 2-3 white eggs in May-June. If each pair, in each box lay 3 eggs, how many eggs would be laid in the tower?

A:

Q: If 60% of the chicks from these eggs survived to fledge about 6-8 weeks later, and start the long journey back to North Africa from Cardiff Bay, how many would that be?

A:



8. PIRATE PLAYGROUND – CROCK IN THE DOCK

Q. Can you name a Roald Dahl Book (other than The Enormous Crocodile)?

A:

Q. Can you name 2 more Roald Dahl Books (other than The Enormous Crocodile)?

A 1:

A 2:

Q. Which is your favourite Roald Dahl book?

A:

Q. Why is this your favourite Roald Dahl book?

A:

9. FLAT HOLM

As you approach the barrage, if you look out to sea, you'll see a small island. This is Flat Holm, a small island with a BIG story! Early Celtic Saints, Monks, Anglo-Saxons, Vikings, Pirates, silver miners and smugglers have all left their mark upon the small, wildlife rich island, five miles off the coast of Cardiff. It was fortified in Victorian times and again during World War II, though it is perhaps most famous for receiving the very first radio signal.



On May 13th 1897, Guglielmo Marconi transmitted the first ever wireless signals over water, from the headland known as Lavernock Point to the west of Penarth, to a mast on Flat Holm Island, a distance of about three miles. This first message, transmitted in the dot – dash of Morse Code read: 'Are you ready?'...And they were.

Below is a Morse Code chart, showing the dot and dash pattern for each letter of the alphabet.

Use that chart to illustrate in dot and dash, how Marconi communicated 'Are you ready?' across from Lavernock Point to Flat holm. Spell the words using the letters and apply the dot-dash symbols. So, for example, in Morse Code, the word CAT looks like this:

.... .. -

A	..	N	..
B	....	O	---
C	....	P	....
D	...	Q	----
E	.	R	...
F	....	S	...
G	---	T	-
H	....	U	---
I	..	V	....
J	....	W	---
K	---	X	----
L	....	Y	----
M	--	Z	----

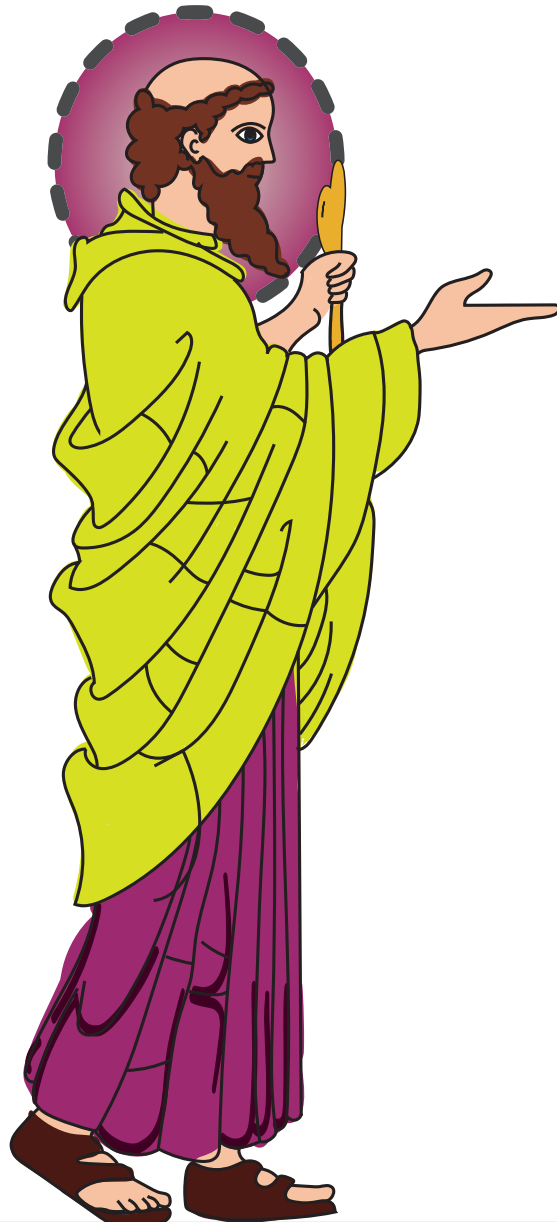


Now, using the chart, set out the dot and dash code for the following.
Are you ready?

10. STEEP HOLM

St Gildas, also known as St Gildas the Wise was a sixth century British monk. He was born in Scotland around the year 516, but educated a few miles to the west of Cardiff at St Illtyd's monastery in Llantwit Major. He lived as a hermit on Flatholm Island for many years.

Here is a representation of St Gildas in stained glass. Complete the missing part of the image.





13. SCOTT OF THE ANTARCTIC EXHIBITION

Having learned a bit about Scott of the Antarctic along the way and had a good read of the information on the exhibition panels, answer these questions:

Q: What was the name of Captain Scott's Expedition Ship that sailed from Cardiff Bay?

A:

Q: At which dock did Captain Scott's crew embark the Terra Nova on June 15, 1910?

A:

Q: Which two flags was the Terra Nova flying at her mast-head that day?

A:

Q: Which of the Poles was this expedition trying to reach, the North or South Pole?

A:

Q: Which Nation had beaten Scott's team to the South Pole? Was it:

A Sweden

B Finland

C Iceland

D Norway

A:



PEOPLE, ART AND NATURE - 2. POEM NEXT TO CADWALADERS ICE CREAM PARLOUR

Choose your favourite line or two of poetry and explain why you like it so much.

Line of poetry:

Why I like it:

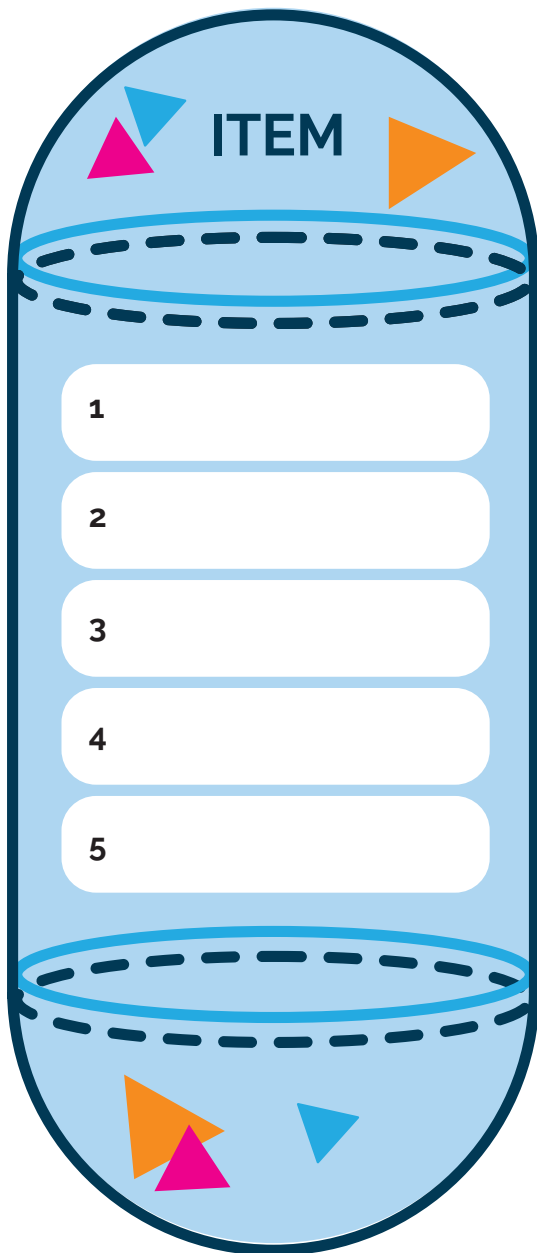
Write your own short poem (of no more than 9 lines) about a journey you have taken – it could be by car, on foot, on a bike, boat or plane, or even an imaginary journey in a space rocket. Think about what you liked about your favourite lines and bring some of that to your poem.





WALES MILLENNIUM CENTRE TIME CAPSULE

What five items would you include in a time capsule today to tell children 100 years from now something about your life today? Remember that they need to be fairly small items that can fit in something the size of a large jar or a sandwich box.



EXPLAIN WHY

1

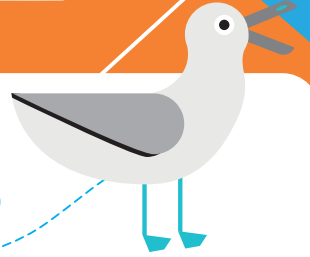
2

3

4

5





WATERWAYS AND WILDLIFE - 4. ATLANTIC WHARF

Ships would have come into this Dock to collect cargoes of coal from the Valleys, brought down on a railway that came to the edge of the dock. The large warehouses alongside the dock were once used to store goods ready to load onto vessels mostly from the industrial areas of the valleys, or cargoes delivered into Cardiff from ships and awaiting to be transported on the railway across the length and breadth of Britain – from bananas to tobacco, building materials to sugar. As you can see from the picture below, sometimes this dock was so full that you could run across the ship decks from one to the other!



© Atlantic Wharf Residents' Association

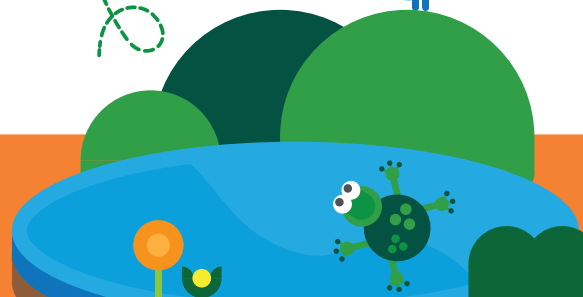




Imagine you were the dockmaster, responsible for which ships could come in and where they should be moored. Use your maths skills to work out which of these ships below would make best use of the available space left to dock overnight.

What you need to know:

- Atlantic Wharf is 152 metres wide
- Already on this particular evening, the dock is almost full of ships
- A tract of water, 30 metres wide, running the whole central length of the Wharf must be kept clear at all times so that ships can come in and out of the dock. This means that the available area for parking ships on each side of the dock is 61 metres.
- On side A of the dock, a masted barque, carrying cargo from Australia has taken up a lot of space, and so there is only space for ships under 55 metres of length to moor on this side of the dock (and as much as 66 metres of width available).
- On side B of the dock, there is a little more room, 68 metres in length and 66 metres in width.
- All ships must be moored port to star board, that is, their sides must touch. Their masts cannot be tied to the side of another ship nor their bow (back end) moored to the side of a ship. All ships must align the same way.





Here's a list of the ships hoping to moor in the dock overnight:



A The Valentina, a schooner – 39m long, 10.5m wide



B The Mary-Anne, a barquentine, 54m long, 15.5m wide



The Cutlass, a clipper 69 m long, 13.5 m wide



A Swift, a clipper 54 m long, 10 m wide



A / B* Hope, a brig 28m long, 7.5 metres wide



A The Armadillo, a brig 35m long, 9 metres wide



A Elizabeth, a clipper 53m long, 10m wide



A / B* Petit, a small brigantine, 27m long, 7m wide



B The Victoria, a barquentine, 60m long, 18m wide



A / B* The Indefatigable, a brigantine 25m long. 7metres wide



A The Flying Fox, a brig 30m long, 8 metres wide



B The Invincible, a four-masted barque, 67 metres long, 19 metres wide

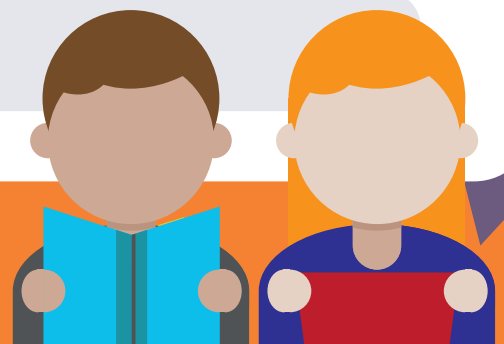


A Neptune, a schooner 38 m long, 11m wide

Your task is to fit as many ships as possible into AREA A and AREA B, available for mooring within East Bute Dock on this busy evening. Consider the lengths of each ship and make sure that when adding up the width of the vessels, you do not go over 66m. You might have to be a little bit creative to solve this task and get as many ships as possible into dock for the night!

Q: Which ship or ships must be turned away?




A:







6. BIRDLIFE & WILDLIFE

Great crested grebe, waterfowl, coots and swans are regulars on the water here, so keep an eye out for them. During the summer you may also catch sight of dragonflies and damselflies too.

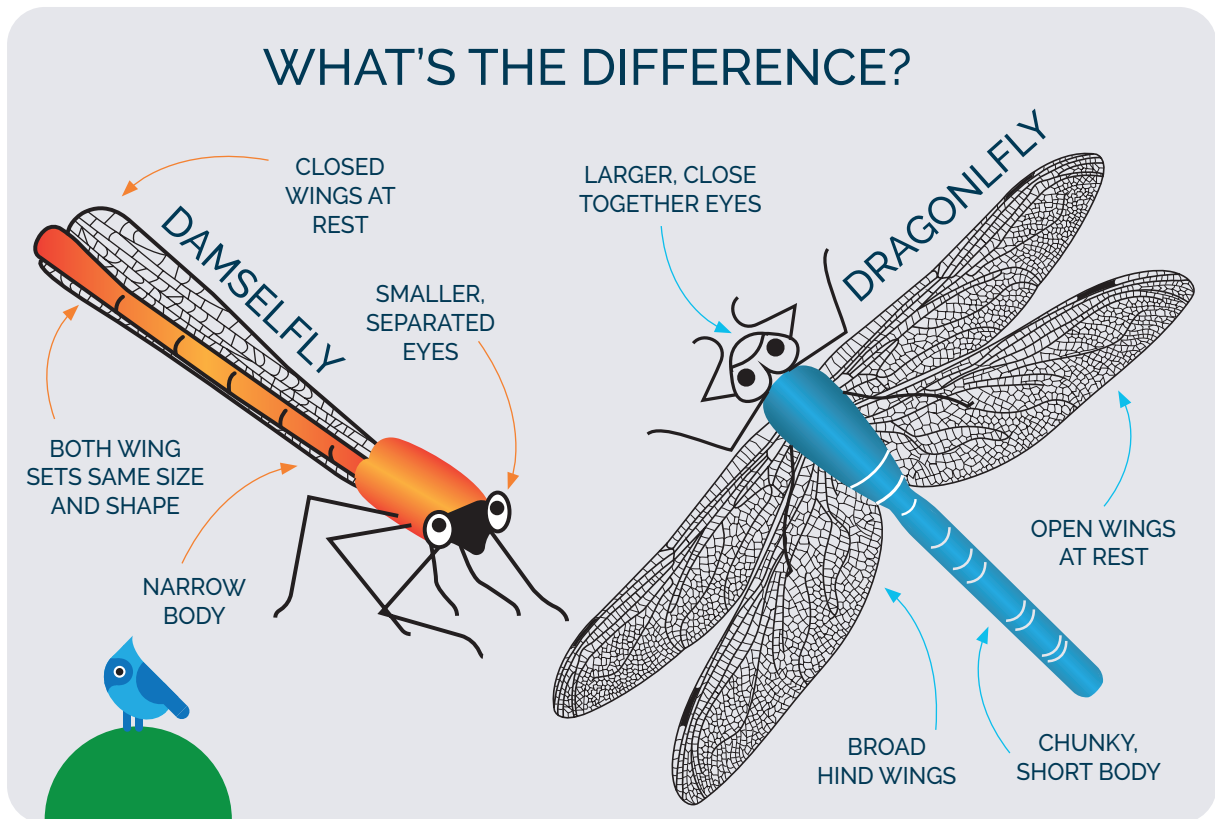
WHAT IT LOOKS LIKE	SPECIES NAME	HOW MANY SIGHTED?
	Great Crested Grebe	
	Coot	
	Swan	





WHAT IT LOOKS LIKE	SPECIES NAME	HOW MANY SIGHTED?
	Dragonfly	
	Damselfly	

A little help telling Dragonflies and Damselflies apart:





7. THE QUAYSIDE CRANE

'The Quayside Crane' isn't a very imaginative name for the crane. Come up with a better one that takes into account the crane's shape, purpose, colour and anything else you think relevant.

YOUR NEW NAME FOR THE CRANE:



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