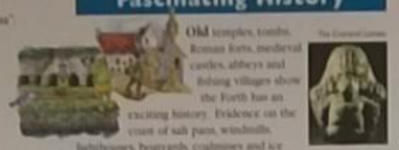
Firth of FORTH

"Firth" is an old Norse word meaning "arm of the sea"

Fascinating History



Old temples, tombs, Roman forts, medieval castles, abbeys and fishing villages show the Forth has an exciting history. Evidence on the coast of salt pans, windmills, lighthouses, boatyards, coalmines and ice houses all show how people used the Forth's natural resources.

Stirling Castle

The Firth of Forth links fresh river water and the salt water of the open sea. The landscape changes from mudflat to rocky shore and cliff, creating a variety of habitats for a wide range of plants and animals.

It is also a focus for industry, transport, housing and recreation. Nearly 1.3 million people, a quarter of the Scottish population, live, work and enjoy themselves around the Forth.

Many of the activities that make the Forth so important can also be damaging to its long term future. Increasing demands for space and resources make it vital to find a balance between the interests of people, industry and the environment.

Forth Facts and Figures....

- Length of shoreline - 273 kilometres
- Distance from Stirling to the Isle of May - 96 kilometres
- Length of sea cliffs - 25 kilometres
- Length of rocky shore - 13 kilometres
- Maximum width - 27 kilometres
- Maximum depth - 68 metres
- Area of open water - 1,670 sq. kilometres
- Area of mudflats - 1800 hectares
- Area of saltmarsh - 110 hectares
- Area of sand dunes - 450 hectares
- Volume of water - 16,900 million cubic metres
- Volume of river flow - 44.7 cubic metres per second
- People living around the Firth of Forth - 1,250,000
- Length of rail bridge - 2,498 metres
- Length of road bridge - 2,513 metres

The source of the river Forth is high on the slopes of Ben Lomond.

The upper estuary winds through farmland and the "Alloa Inches" near Stirling. Slower currents allow mud and clay to settle and the river becomes fringed by saltmarshes and reedbeds.

Sheltered bays contain large mudflats full of worms, shrimps, mussels, snails and small fish, all vital food for hungry birds.

Rare plants can be found on the sandy beaches and dunes at the Queensferry bridges.

Rocky shores on the islands and outer limits of the estuary are less protected from wind and waves.

The "Emeralds of the Forth" refer to the islands within the estuary. Spot the larger islands on the main illustration - *Inchcolm, Inchmickery, May, Inchkeith, Bass Rock*

Many burns and rivers flow into the Firth of Forth. Spot the main rivers on the map - *Forth, Teith, Devon, Leven, Tyne, Esk, Leith, Almond, Avon, Carron*

The Forth's shoreline is home to many different species of birds. In winter, over 40,000 waders are known to visit from Canada, Eastern Europe and Siberia. In summer the rocky islands and shores around the estuary are home to over 200,000 breeding seabirds. The Bass rock is famous for its spectacular colony of gannets.

Stirling
Dunfermline
Kirkcaldy
Isle of May
Bass Rock
Inchcolm
Inchmickery
Inchkeith
Grangemouth
Hound Point
Edinburgh

Home to Thousands of People

The biggest population centres include - **Edinburgh, Dunfermline, Leven, Kirkcaldy, Glenrothes, Stirling, Alloa** and **Grangemouth.**

Forth Road Bridge

On the Move

Road and railway networks connect towns, ports, airports, and rail and bus stations. The Forth bridges cross at Queensferry where the Firth is only 2.5 kilometres wide. Other bridges include those at Kincardine and Stirling.

The Forth's waters have provided access to Edinburgh, Stirling and much of lowland Scotland for centuries. Ships are vital for importing and exporting cargo to and from countries around the world.

*Spot the main ports and dockyards - **Leith, Grangemouth, Methil, Burntisland, Kirkcaldy, Rosyth.***

Cargo handling, Leith Dockyard

Grangemouth

Protected Places

Many activities such as building, fishing, oil transport and some types of recreation sometimes endanger our wildlife and the environment we all live in. But it's not all doom and gloom. The importance of the Forth has been recognised and many sites are now being looked after by organisations which help protect and encourage people to enjoy and learn about the wonders of the Forth.

Information board

We need economic development for jobs and prosperity, and with careful management everyone can enjoy the Forth's resources both now and into the future.

The Forth Estuary Forum is made up of many organisations and encourages everyone to think of the environment and other people's interests as well as their own.

Forth Estuary Forum

Vital Industry

Thousands of people work in industries such as oil, gas, shipping, energy and fishing. Other industries include petrochemicals, electronics, biotechnology engineering, tourism, recreation, retail, distribution and financial services.

Most oil and gas supplies are delivered by pipeline from under the North Sea, refined at Grangemouth and Mossmorran, and distributed through tanker terminals at Hound Point and Braefoot Bay.

Oil-based products including petrol, diesel, plastics, paint, polish, adhesives, detergents, inks, dyes and pharmaceuticals are made and exported around the world.

There are four coal power stations and a nuclear power station at Torness. Longannet is the largest coal-fired power station in Europe and uses firth water for cooling.

*Spot the power stations on the map - **Longannet, Methil, Cockenzie, Kincardine, Torness.***

Hound Point tanker terminal

Braefoot Marshalling Yard

Longannet Power Station

Tackling Pollution

The quality of the Forth's water is being improved constantly as new treatment works for sewage and industrial waste are introduced and upgraded. But litter and waste still end up in the sea and on our beaches, carried there by river or left behind by untidy visitors.

We all have a responsibility to dispose of rubbish carefully.

Beautiful Landscape

Volcanic activity created the islands of the Forth and famous landmarks like Edinburgh's Arthur's Seat and Stirling's Castle Rock. Abbeycraig and Berwick Law and Largo Law, while the Great Ice Age brought ice sheets up to 1 kilometre thick which scraped and scoured this area. Later as it melted, deep layers of glacial debris were left behind.

The rivers, sea and wind continue to shape our landscape. Towns, cities, industrial estates and ports land reclamation, mineral extraction, coastal protection, the planting of woodland and farming, all help to create the views we enjoy today.

Sunset, Leven and the Bass Rock

Beneath the Waves

The seabed can be made of mud, sand, gravel or rock. Underwater cliffs are full of life and kelp forests sway in the currents. Rocks are covered with red and green seaweed, colourful sponges, anemones, sea squirts and spiny sea urchins. Octopus and lobsters lurk between boulders and in caves, while above, the waters of the firth are used as a nursery ground for fish and as a haven for seals, dolphins and even whales.

The seabed is used for mooring yachts, laying pipelines and cables, oil jetties, harbour works and sewage outfalls. Sometimes it is even used to provide sand and gravel for building projects or improving beaches. Almost all the seabed in the Firth of Forth (and Scotland) is owned by **The Crown Estate**. Their permission as seabed owner is required for these uses.

Did you know that many wrecks lie on the seabed, including aeroplanes, fishing boats, ships and submarines!

Kincardine ship graveyard

Out and About...

Many people enjoy water-sports, such as sailing at Port Edgar, salmon fishing in the river Forth and diving at the base of the Bass rock cliffs.

Sailing on the Forth

Britannia

There are beautiful beaches, many miles of paths to walk or cycle and all sorts of visitor attractions to see, including ships, castles, museums and an aquarium.

Beautiful beaches

This Project has been produced with the financial assistance of the Crown Estate.

THE CROWN ESTATE

www.forthestuaryforum.co.uk