

The Real Map of Ireland Lesson Plans

Facts about the Real Map of Ireland and the Sea

Names of Areas on the Real Map of Ireland:

The areas shown on the Real Map of Ireland can be explained by looking at the feature and categories of each area.

Maury Channel:

Maury Channel was named after the 19th Century American oceanographer – Mathew Fontaine Maury.

The area is a deep water channel which is fed by currents from Iceland. It is west of the Rockall Plateau.

Average Depth: 3018 m.

Edoras Bank:

Edoras Bank was named in 1975 by DG Roberts influenced by author J.R.R Tolkien (1954) who wrote stories such as “The Lord of the Rings”.

‘Bank’ is used to describe its bathymetric feature. The area is one of the deeper banks forming part of the Rockall Plateau.

Average Depth: 1117 m.

Feni Ridge:

Feni Ridge / Feni Drift is named after the ancient Irish people (*féne*).

The area is a wide build up of sediment that comes from the geologic period of 23.3 million to 1.64 million years ago. It is on the western side of the Rockall Trough.

Average Depth: 2456 m.

Goban Spur

The Goban Spur is a gently sloping stepped platform which together with the Meriadzek Terrace (a plateau like feature on the continental margin southwest to the Goban Spur) forms the south eastern flank of the Porcupine Seabight.

Spur is a subordinate elevation or ridge protruding from a larger feature such as a plateau.

Average Depth: 796m



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Porcupine Bank:

The Porcupine area was surveyed in 1862 by the survey vessel HMS *Porcupine*. References to naming this area Porcupine have consequently appeared on charts since this date.

'Bank' refers to the elevation over the area. The Porcupine Bank is relatively shallow area with water depths of less than 200m.

Average Depth: 270m.

Porcupine Abyssal Plain

Average Depth: 4774 m

Porcupine Seabight:

Porcupine Seabight was named after the HMS *Porcupine*.

It is thought that 'bight' derives from the Old English word "*byht*" which means a wide curving bend. Bight is also the geological term which indicates a bend in a shoreline forming a bay.

The Porcupine Seabight is on the continental margin southwest of Ireland. It is an unusual bathymetric feature which looks like a bay that has been formed in a coastline.

Average Depth: 2369 m

Rockall Bank:

The name Rockall derived from the name given to the islet (small island) which appeared as 'Rocholl' on a chart in c.1550. In the 17th century it was spelt using variations such as 'Rokol; Rokel; Rookol, Rokele, Rokal and Rokabarra. In 1811 HMS *Endymion* used 'Rockall' in its reporting and has been the accepted version used on charts since.

The Rockall islet is the only exposed part of the Rockall Bank and consists of aegirne granite dated as early as the period of geologic time, 65 million to 1.6 million years ago, during which mammals became dominant and modern plants evolved.

Ireland does not have formal claim to Rockall, regarding it as merely an uninhabitable rock without any territorial waters and thus irrelevant when determining the boundaries of the exclusive economic zones of Denmark, Ireland, Iceland, and the United Kingdom. Rockall is 424 kilometres from Donegal, Ireland and is not included within the boundaries of the Real Map of Ireland.

The Rockall Bank is the shallow part of the Rockall Plateau

Average Depth: 893 m.



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Rockall Plateau:

The Rockall Plateau is an extensive shallow water area west of the Rockall bank.

Average Depth: 1318 m

Rockall Trough:

The Rockall Trough is a long bathymetric depression. It is a long and narrow area stretching North East to South West and extends from the Anton Dohm Seamount in the north to the Porcupine Abyssal Plain in the south.

Average Depth: 2763 m



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More Facts about the Real Map of Ireland terrain:

- Ireland has 220 million acres of marine resource.
- The Real Map of Ireland shows three areas under the sea which include:
 - The continental shelf
 - The continental slope
 - The abyss
- The Continental shelf
Ireland's continental shelf is a flat area of gently sloping land around the edge of the continents. Most of our fishing grounds are over the continental shelf as it is more fertile due to sediments washed out from rivers. This increases the amount of plankton for fish to feed on.
- The Continental slope
Where the shelf changes to a slope the seabed is often cut by canyons.
- The Abyssal plain
The Abyssal Plain lies beyond the Real Map of Ireland territorial zone. The Abyss is similar to the desert on land it is scarred or featureless without a hill for thousands of square kilometres. It is intensely cold (-0.6°C to 3.5°C), dark and is under high pressure. The bottom of the abyss is covered with a slippery and cold substance called ooze.
- Seamounts
Volcanic peaks can be found more than 1km above the Abyssal plain. These may also be called seamounts. Seamounts that have been flattened by wave erosion are called tablemounts.
- Ocean ridges
Mid ocean ridges are a mountainous ridge that breaks the abyss. It is here that the new crust is formed by up welling of magma from mantle below. In places these huge ridges appear above the surface of the sea to form islands. Iceland is an example of an island formed in this way.
- Ocean trenches
Ocean trenches are formed where the mantle currents drag the plates towards each other and one sinks below the other. The deepest trench in the world, the Mariana trench is over 11,000m, this is in the Pacific.
- The Gulf Stream
The Gulf Stream keeps Ireland warmer than would be expected in the winter by carrying heat in the form of warm water from the south western Atlantic near South America and Mexico.
Any big weather event, such as a hurricane, typhoon, flood or drought, is generated by ocean conditions



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General information about the Sea:

There is endless information about the seas and oceans around the world that can be used in geography and other cross curricular lessons. The following are some interesting facts to get you started:

- There are 5 oceans and many seas that make up the worlds oceans. These include the Atlantic Ocean, Artic Ocean, Pacific Ocean, Indian Ocean, Southern Ocean
- Life began in the seas 3.1 billion to 3.4 billion year ago.
- 90% of all volcanic activity occurs in the ocean.
- Earths longest mountain range is the mid- ocean Ridge more than 50, 000 km in length. It is four times longer than the Andes, Rockies, and Himalayas combined.
- About 97% of the earth's water is saltwater.
- Three times the weight of fish caught each year is equivalent to the rubbish dumped into the world's oceans.
- The swordfish and the marlin are the fastest fish in the ocean reaching speeds of up to 121 kmph in quick bursts.
- The largest animal on earth is the blue whale. These can grow to 33m long and weigh up to 178,000 kg. It is estimated that 30 to 50 blue whales pass through Irish waters each year.
- The highest tides in the world are at the Bay of Fundy, which separates New Brunswick from Nova Scotia. At certain times of the year the difference between high and low tide is 53 feet 6 inches, the equivalent of a five-story building.
- The ocean determines climate and plays a critical role in Earth's habitability.
- Two hundred million years of recorded geologic and biologic history of the Earth can be found in the ocean's floor. By studying ocean sediments, scientists can learn about ancient climate, how it changed, and how better to predict our own climate.
- Substances from marine plants and animals are used to make products and food such as shampoo, medicine, ice cream, toothpaste, fertilizers, gasoline, cosmetics, and livestock feed.
- Over 90 percent of trade among countries is carried by ships.
- At the deepest point in the ocean the pressure is more than 8 tons per square inch, or the equivalent of one person trying to hold-up 50 jumbo jets against the force of gravity.

