

# Brief history of ocean exploration



People have always lived with the seas and oceans. Many histories of exploration are anchored in specific cultures. However, it is important to remember that in the past – and still today – the oceans are central to the lives of lots of people, in the Pacific, Arctic and many other regions. Here the seas and oceans are not explored but already part of a wider system of

Exploring the oceans, within Western contexts, was first recorded in 4500 BCE when ancient civilisations, particularly Greek and Chinese dived beneath the waves in search of food and fishing becomes part of their local trade. In 4000 BCE, Egyptians developed sailing ships to explore by sea. By 500 BCE, the ancient Greeks were navigating the Mediterranean using latitude.

In 325 BCE, Pytheas, a Greek explorer from Massalia (modern day Marseille in France) uses the North Star with latitude. He was the first Greek to sail to the British Isles. Then, in 158 CE, the Roman explorer and astronomer Ptolemy used latitude to chart countries and seas of the Roman Empire.

Between 700 – 900 CE, Vikings charted the known world and used ‘fathoms’ to measure ocean depth.

This method of measurement is still used in some parts of the world today.

Fast forward to 1492, when Christopher Columbus established a trade route between Europe and the Americas. Then in 1498, Vasco de Gama was the first European to reach India and established trade links between Portugal and India.

In 1504, Italian explorer - Amerigo Vespucci mapped the new world travelling along the coasts of America.

Between 1519 and 1522, Ferdinand Magellan from Portugal led an expedition that, despite his death in the Philippines, saw one of his ships become the first to circumnavigate the globe. In 1620, Dutch inventor Cornelius Drebbel created the first submarine, made from wood and animal skin, which travelled at a depth of four meters in the River Thames.

Between 1768 – 1780, James Cook charted the southern hemisphere including Australia and New Zealand.

By 1831, Charles Darwin completed a research-led circumnavigation of the globe where he stops off at the Galapagos Islands sparking his *Theory of Evolution*. Then in 1868, Charles Wyville Thompson a Scottish naturalist discovers sea life at the depth of 4389 metres on HMS Lightning. Before this, it was believed that life stopped at 549 metres. In 1872, the HMS Challenger circumnavigation of the globe revealed thousands of marine species and underwater features.

Between 1907 and 1909, Ernest Shackleton led an expedition to Antarctica. In 1934, William Beebe was the first man to be lowered in a submersible to a depth of 923 meters.

We should always think carefully about who explored the ocean – why and for what purpose. Whilst some explorations have been exciting or important (for example, to science) not all explorations have been 'good'. As you study the oceans more, in years ahead, you might want to learn more about exploration.

### Thinking carefully

Today many people think carefully about the impacts of these explorations, which have reshaped our world. Trade routes did not just move goods, but forcibly moved people. We cannot simply celebrate such explorations or such figures because unfortunately many new trade routes and technologies were used for economic gain, to gain political power, and often at the huge societal costs.

In 1943, Emile Gagnan and Jacques Cousteau invented the Aqua Lung, enabling divers to breathe underwater. In 1960, the submersible 'Trieste' reached the Mariana Trench at 10,912 meters.

In 1970, Sylvia Earle led the first all-female aquanauts programme to study underwater life. By 1990, Cindy Lee Van Dover piloted a deep-diving submersible known as Alvin, discovering deep-sea organisms like vent tube worms. In 1995, the US GEOSAT system provided images mapping the sea floor for the first time. Finally, in 2012, James Cameron became the first person to solo dive to the Mariana Trench.