

Navigation -

Teacher's introduction

Start with showing a map of the world / geography globe

Look at the largest oceans – Atlantic and Pacific specifically

Humans needed ships to cross oceans. Ask, why they would want to cross these oceans?

They may be fleeing war, famine, overpopulation or seeking trade and adventure. Without navigators they would be lost at sea.

Imagine setting sail and not knowing what was beyond the horizon. Pupils should suggest what might indicate there was more land beyond the horizon.

Answers could include –things washing up on the shore, birds flying away for the winter, the existence of known other lands but out of sight. Compare this voyage for the sailors to a modern day space craft setting off to find inhabitable planets and life beyond our planet.

Pupils can work in teams to come up with a list of what they would take on a voyage to an unknown destination by ship?

Pupils list should include -

Water – Do some mental arithmetic - each person needs a minimum of 3 litres a day and there are 20 people on the ship how much water for a week, a month, three months?

Food – Living animals for fresh meat and eggs.

Storage would be an issue as would preserving fresh fruit

Ask who would most likely be good sailors?

- People living on small islands surrounded by vast oceans?
- or
- People living on a large landmass

In Bristol we celebrate Cabot for sailing off from Bristol and discovering New Foundland. What was happening on the other side of the world hundreds of years before Cabot?

Show where New Zealand is on the map.

The people who discovered this land are Maoris and the original name was **Aotearoa**.

Europeans were actually astounded by the Maori and Polynesian navigators and took them onboard their ships as navigators to map the Pacific Ocean. The great European explorer Captain James Cook travelled with a Polynesian Navigator called Tupaia who took Cook to islands many miles away across the largest ocean in the world.

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Despite all this evidence the Europeans portrayed the Maoris and Polynesians in history as people who were accidentally blown by the wind to new places.

Discuss why Europeans didn't report them as being good navigators and excellent sailors? This is a complex issue for discussion.

Possible Answer – The fundamental belief of Europeans at the time was that the bible said they were superior. At the same time Darwin's new scientific theory of evolution was exploited to confirm this superiority. With this in mind the Europeans could justify taking the land by maintaining the belief that they were saving them. It's like saying to a neighbour I deserve your wild garden because my plans for it our better. In reality killing people who were seen as animals was legal.

Aotearoa was inhabited by Maori people for hundreds of years. The Maori have a rich culture based on an understanding and respect for the land, sea and living creatures. It was later named 'New Zealand' by Europeans who colonised it hundreds of years later.

At the same time Europeans believed the Earth was a flat disc floating in endless sea water as depicted by this map in which the known land was mapped by travelling the connected land mass and the Mediterranean Sea.



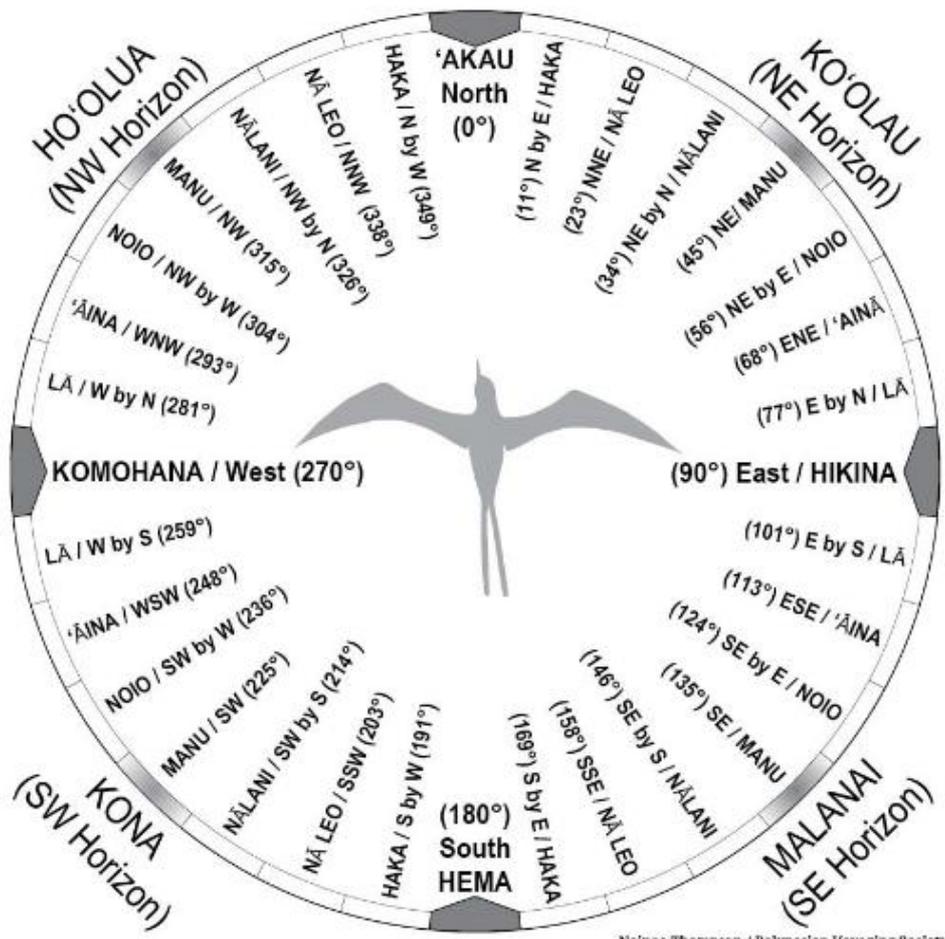
At the same time on the other side of the world Maoris were successfully navigating two thirds of the world's oceans in large Sailing Waka using the stars and planets to navigate. The Waka were faster and larger than the European ships but the Europeans came with guns and cannons.

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Sailing Waka -



Maori/ Polynesian. Star Compass



Nainoa Thompson / Polynesian Voyaging Society

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Pacific Ocean Worksheet

- Estimate the distance from Hawaii to New Zealand.

Answer – Any estimates around 8000km 1600km x 5

The Pacific Ocean is by far the largest ocean. What skills would you want to have if you lived on one of the islands in the middle of this vast ocean?

Answer – Fishing, swimming, sailing, rowing, surfing, and of course navigation

Ask the additional question of, which skill would place you and your family high up in the island society?

Answer - Navigation