



UNIT III. Introduction to navigation.

Timeline of sea navigation.

A timeline is a graphic representation showing the passage of time as a line.

Read and order the events chronologically. Trace a line.

The Chinese invent the compass contributing substantially to ocean navigation. Early compasses are nothing more than a floating magnetized needle in a bowl of water. With the compass and their guide, navigators of the sea venture further without fear.

Vikings explore the Arctic and Northern Atlantic Ocean around Greenland, Iceland, and Newfoundland. They use the North Star as a reference point to guide them.

Navigators use electronics since the first days of radio. Electronic navigation is now the common satellite-based global positioning system. Today's Global Positioning System makes other electronic systems obsolete.

Polynesians develop and elaborate system for navigating between the many islands of the South Pacific. They use indicators such as the stars, sun, planets, moon, winds, clouds, currents, and tides as "landmarks".

James Cook begins the first of three voyages in which he maps the Pacific Ocean. He uses a chronometer to obtain the first accurate determinations of longitude. This is one of the first ocean investigations conducted for scientific purposes.

Phoenicians explore the ocean with sailing ships. However, they have little understanding of the unpredictable and overwhelming environment of the ocean. They "hug the coast" and go no further than the coastline and near-shore environments.

