

Celestial Navigation and Captain Stewart Dean's Sea Voyage

Captain Stewart Dean and other sailors have always faced great risks when they traveled at sea. Sudden storms could break their masts and shred their sails. Giant waves could sink their ships or wash men overboard. Hidden reefs could tear open their hulls. If the sailors were lucky enough to avoid these hazards, they could still become hopelessly lost and wander until starvation, thirst or disease set in. The life of the sailor was hardly one for the faint hearted.

There was nothing they could do about the weather, but with proper navigation tools, Captains like Stewart Dean could help keep their crew from getting lost at sea.

Vocabulary: You will here these words in the planetarium for the *Navigating the Seas* activity:

Constellation: Groups of Stars that create a shape in the sky and have been given names. There are 88 official Constellations. Example: Ursa Major, Ursa Minor, Leo, and Taurus, etc.

Polaris: The Pole Star or North Star. It is part of the constellation Ursa Minor – The Little Dipper.

Quadrant: A nautical instrument sailors used to measure the height of polaris and find their latitude.

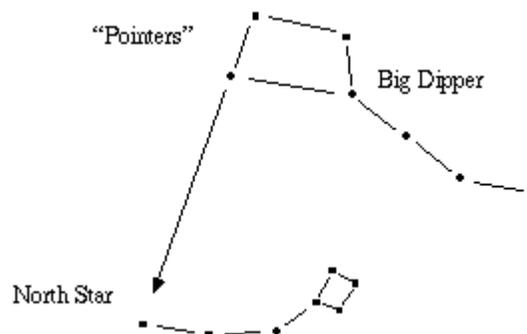
Compass: A nautical instrument used for determining directions.

Latitude: The distance North or South from the equator.

Longitude: The distance East or West from the equator.

Asterism: Groups of stars within a constellation that make a shape. Example: The Big Dipper is an Asterism of Ursa Major ("The Big Bear").

Find the North Star: Draw the seven stars that make up the Big Dipper. Connect the dots. Find the last two stars of the "pot." Those stars are the "Pointer" stars and they lead you to the tail of the Little Dipper. The first star of the tail is the North Star.



(<http://www.physics.ucla.edu/~huffman/finddip.html>)

As the seasons change, the Earth rotates on its axis and the position of the stars will change in the sky. However, the North Star remains constantly fixed in the same place in the sky.