



Trekking the Planet

Discovering the Cultural and Natural Significance of the World

The Basics of Geography

"There sat the poor little fellow, with his sister on his lap, and he sang to her all the songs he knew; and he glanced the while from time to time into the *geography-book* that lay open before him. By the next morning he was to have learnt all the towns in Zealand by heart, and to know about them all that is possible to be known." -- *The Dream of Little Tuk (Andersen's Fairy Tales)* - Hans Christian Andersen

- For many people, the mention of geography conjures up visions of filling in names of states or countries on blank map or correctly plotting the latitude and longitude of a location on a globe.
- While this information is useful, in today's global world, geography is much more than learning maps and locations. It is understanding the context of the people, history, culture, environment and nature associated with places, as well as the interpretation of the past and application to the future.
- Our *Trekking the Planet* expedition seeks to raise awareness of geography education by highlighting all these factors as we travel around the world.



source: Onlinepictures.org

- This Pre Trip Module will focus on geography basics. Understanding these basics is the first step to learning about geography and gaining better knowledge of our world.

Latitude, Longitude, Meridian, Equator and Hemispheres

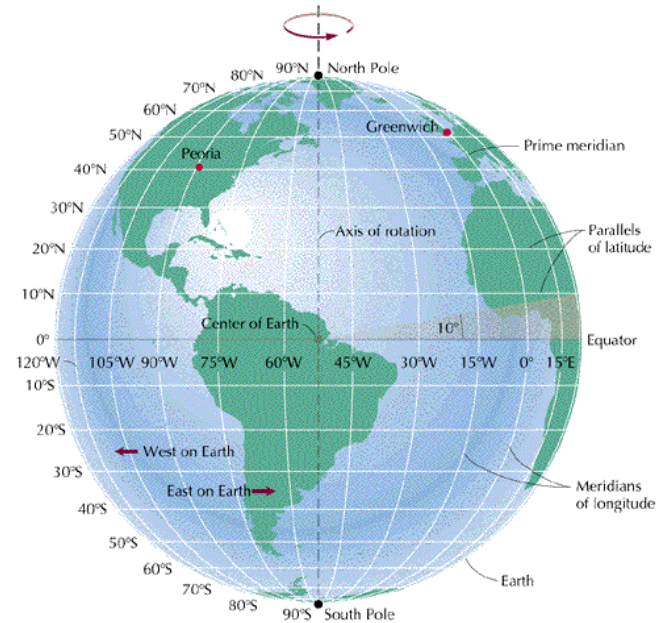
- Maps have existed since men were able to write.
- A coordinate system enables every place on a map of earth to be defined by a set of two numbers. Latitude and longitude are a common set of coordinates used worldwide.
- **Latitude** is the distance from the equator (0°), N(orth) or S(outh). It is a horizontal, **ladder** line above or below the equator.
- **Longitude** is the distance from the Prime Meridian (0° - Greenwich, UK), W(est) or E(ast). It is a vertical, **long** line.
- **Hemispheres** are formed as follows:
 - The Northern Hemisphere is above the equator (N) and the Southern Hemisphere is located below the equator (S).
 - The Western Hemisphere is located to the left (W) of the Prime Meridian and the Eastern Hemisphere is found to the right (E) of the Prime Meridian.

Did you know?

The Prime Meridian was chosen as the international meridian at October 1884 conference attended by 25 nations. The **0° International Meridian** runs through the Royal Observatory in Greenwich, United Kingdom, just east of London.



source: Greenwich Meridian.com



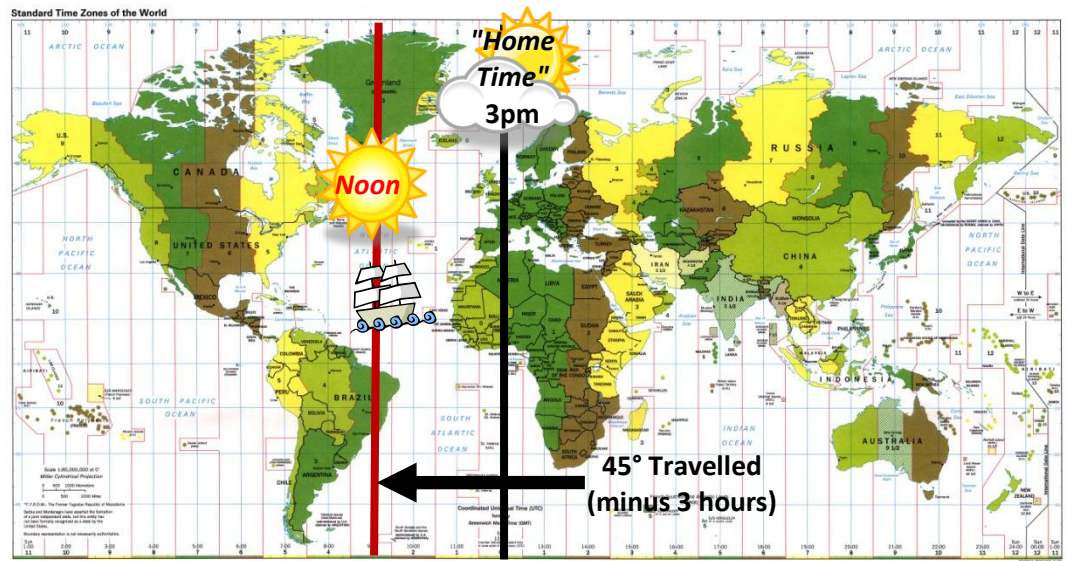
Latitude and longitude lines (source: Montgomery College.edu)



John Harrison and his H4 Chronometer – (personal library)

A Short Longitude History and Overview

- Historically, sailors found their latitude location using the position of the stars. However, thousands of ships and sailors were lost because longitude could not be accurately determined.
- The British government passed an act in 1714 to award the equivalent of several million dollars in today's currency to the person who could design a "practical and useful" means of determining longitude.
- John Harrison, a man without formal education or training, built several clocks to solve the problem and was awarded the design prize in 1773.




source: [Free Printable Maps.com](http://FreePrintableMaps.com)

- In order to determine the current longitude position, sailors carried Harrison's clock, set to their "home time". At the moment that the sun in their current location was at the highest point (noon), the sailor compared that to the "home time" clock. The difference between the two times equaled the distance travelled - 15° for every hour of time change.

From the Basics to our Current World

- Armed with geography basics of latitude, longitude, meridian, equator and hemispheres, we now can move on from learning about places to understanding our world.
- Several models of the study of geography have been created by education groups; the next Pre Trip Module will explore these and how *Trekking the Planet* will present geography educational material during our expedition.
- For one last look at latitude and longitude, click on the Google Map image below to look up combinations around the world and find your own locations.

Simply click on the map on a location and it will provide you with the latitude and longitude in the callout window.



Address lookup has been removed because it violated the ToS of Google Maps.

Based on code taken from [this website](#) and [this website](#).
All other errors are caused by code written by [Pierre Corissen](#).

To enter combinations, use a ‘-’ in front of south latitudes or west longitudes. For example, 34 S, 58 W would be entered as -34, -58 and 1 N, 104 E would be entered as 1, 104.

- 17 S 178 E 59 N 11 E
- 51 N 0W 38 S 145 E
- 34S 18E 41 N 29 E
- 13 N 101 E 34 S 58 W
- 1N 104 E 34 N 118 W

More Information

- http://en.wikipedia.org/wiki/Geographic_coordinate_system
- **Book:** *Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time* By Dava Sobel

Our Partners



This work is licensed under a Creative Commons Attribution-NonCommercial 3.0 Unported License.