

Latitudes

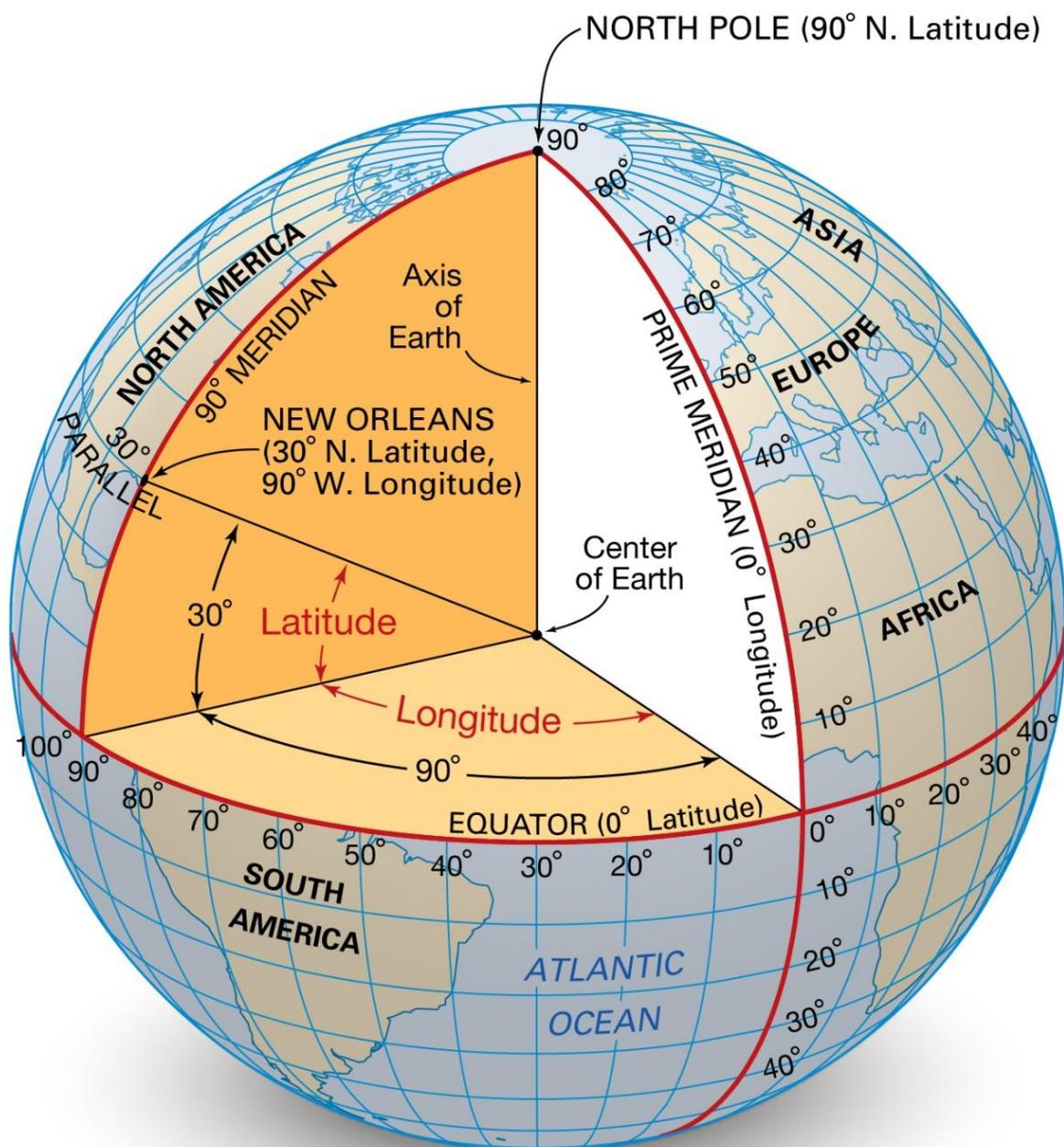
The angles of between the stars and the horizon are the important angles for a navigator. As they show how far away you are from the North or South Pole.

This diagram shows navigation lines around the Earth called lines of latitude.

The lines are parallel to the Equator which runs around the middle of the earth.

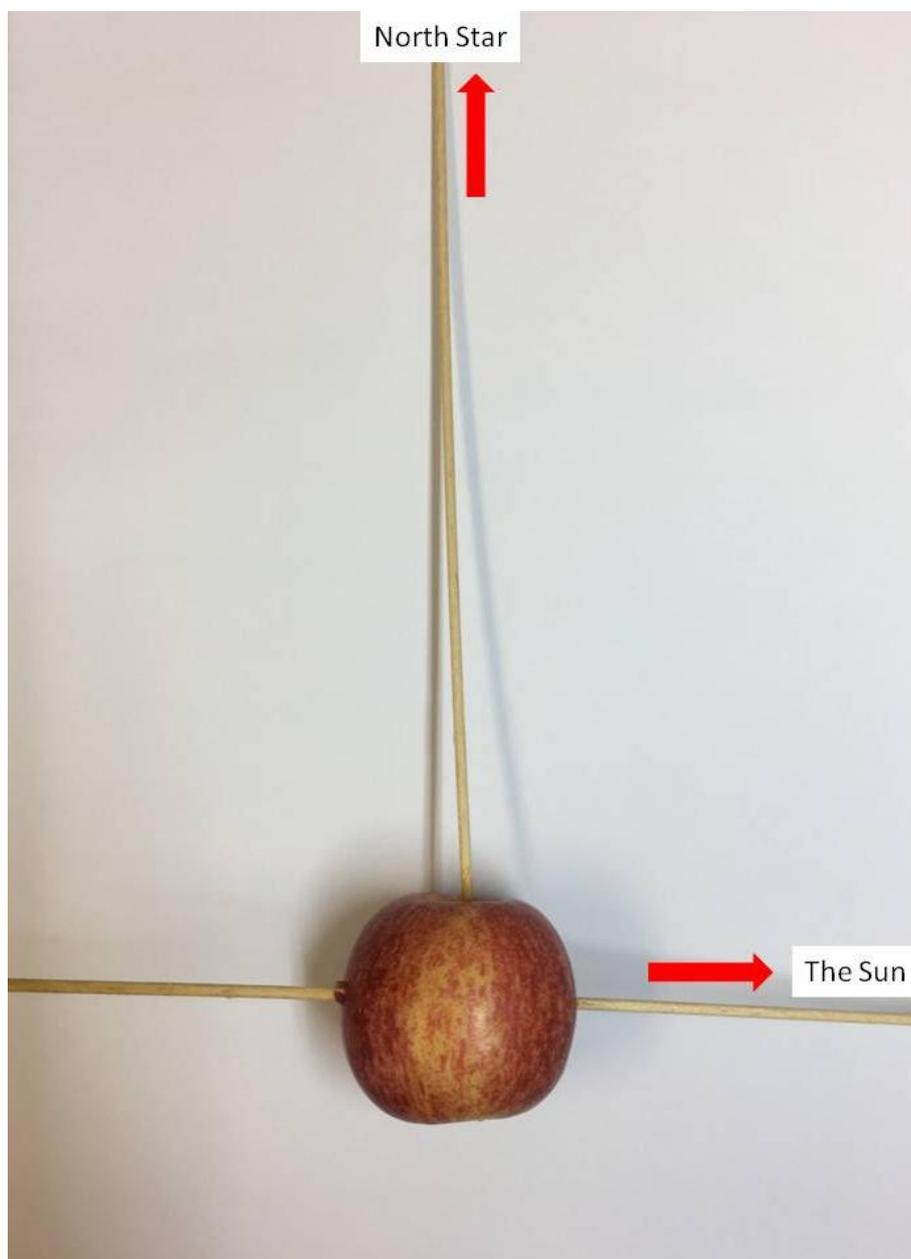
Lines of latitude are marked in degrees North or South of the Equator.

Measuring the angles of the stars and sun above the horizon means you can locate how many degrees north or south of the equator you are.



NAVIGATION – Pupil Worksheet – Latitudes

Set up a model using long skewers and an apple or orange to show the earth in relation to the North Star and the Sun. The North Star is directly above the North Pole and the Sun is directly above the Equator.



Mark on the picture above

➤ The North Pole	➤ The South Pole
➤ The Equator	➤ An arrow to the Southern Cross
➤ A line of Latitude in the Northern Hemisphere	➤ A line of latitude in the Southern Hemisphere

Imagine you were standing on the Equator

➤ What is the angle of the sun above the horizon?	➤ What is the angle of the North Star above the horizon?
Answer	Answer

Imagine you were standing at the North Pole

➤ What is the angle of the sun above the horizon?	➤ What is the angle of the North Star above the horizon?
Answer	Answer

Imagine you were standing on the South Pole

➤ What is the angle of the sun above the horizon?	➤ What is the angle of the Southern Cross above the horizon?
Answer	Answer

Imagine you were standing somewhere in-between the North Pole and the Equator

Explain how measuring the angle of the Sun and the North Star could help you find your latitude?

Answer.

Do you think the Polynesian and Maori navigators knew the earth was round and if so why?

Answer.

Do sailors still use a sextant and why?

Answer.

What do you use to navigate?

Answer.