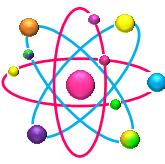


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Studies

Social



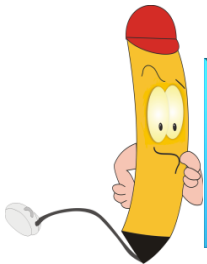
Know the contents

The Miami Virtual School, presented through texts for elementary education program and sequence of natural science content, enriched with several videos and subtopics. With this text handling you acquire attitudes, skills, abilities and concepts that allow you to expand your worldwide.

Your contents are grouped into four sessions containing topics and subtopics of several pages. Each topic begins with a title, a series of questions whose purpose is to arouse your interest in the contents, you can use these questions at the end of a topic to test your learning. You'll find images related to the concepts and themes, videos, charts, concept maps with didactic sense

The virtualitos help you journey through this adventure of knowledge.

Inquire to...



When you find this icon you know that there are many unanswered questions, which you can use at the end of a topic to find what you have learned.



When you find this icon you have to carry out the activities for each topic or subtopic.



Art is part of your activities, giving a personal touch when you go to color. Now you are the artist!



Virtualito invites you to learn more about the theme, research new things. That is interesting to know!



Did you know that...?
You'll find fun facts that invite you to learn about other related topics



Our system and our country

Earth Overview

a. How do you imagine the shape of the Earth? Draw a picture of our planet.

b. Why is it important the Sun to the Earth?

c. Name the things you do on a sunny day.





Unit 1

The Universe

The universe is mostly empty space.

It is very large but not infinite. If it were, there would be infinite matter in infinite stars, and it is not.



Bodies that make up the universe

Stars



They are masses of gas, mostly hydrogen and helium, which emit light, like the Sun

Planets

A planet is a celestial body that orbits the Sun or around any other star. There are nine known planets and can be divided into two groups: the inner planets, rocky and dense, and the outer planets, gaseous and ice cream.





Unit 1

Earth

The planet we live on, is a beautiful blue and white ball when seen from space. The third planet from the Sun, is the largest of the inner planets. Earth is the only planet where life is known to exist and it has liquid water on its surface.



Moon

The Moon does not produce its own light, but looks bright because it reflects light from the Sun. The Sun thinks that the Moon is a mirror that reflects the candlelight. Lunar phase changes as the Moon orbits around the Earth and different portions of its surface are illuminated by the Sun.



<http://www.youtube.com/watch?v=nEyRhM0pu4Q>



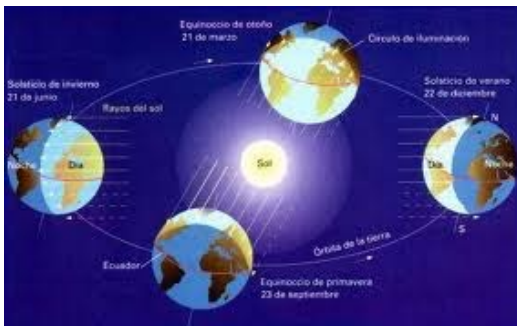
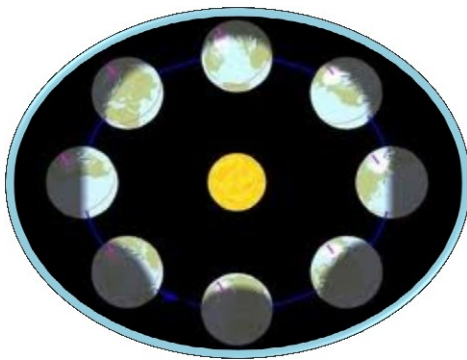


Earth Movements

The Earth is in constant motion. Moves with the other planets and solar system bodies, revolving around the center of our galaxy, the Milky Way. However, this movement has little effect on our daily lives.?? Most importantly, for us, is the movement that makes describing its orbit around the Sun, as it determines the year and the seasons change. And, even more, the rotation of the Earth around its own axis, which causes day and night, that determines our schedules and biorhythms and ultimately inescapable part of our lives.

Translational movement

The Earth moves around the sun, driven by gravity, in 365 days, which is the length of the year.





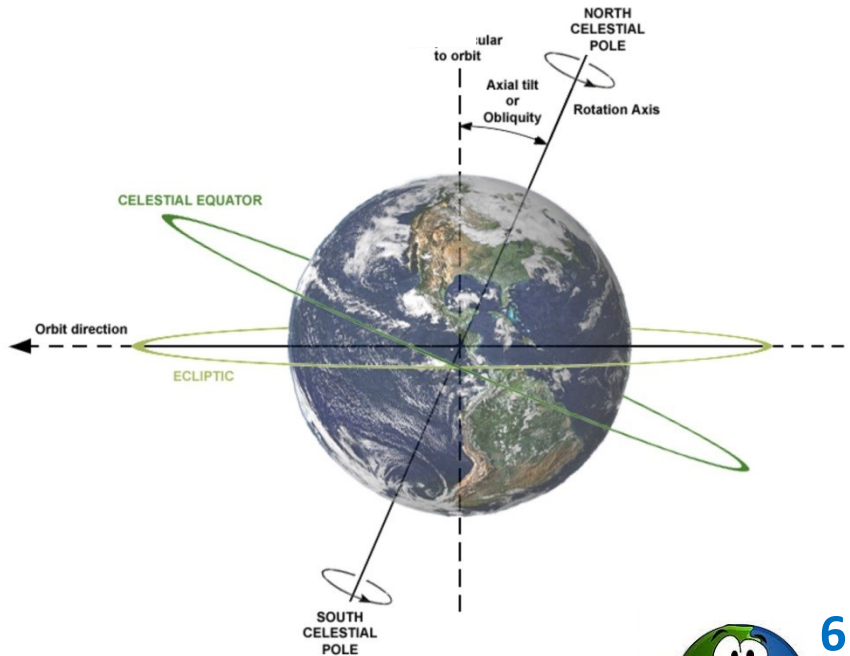
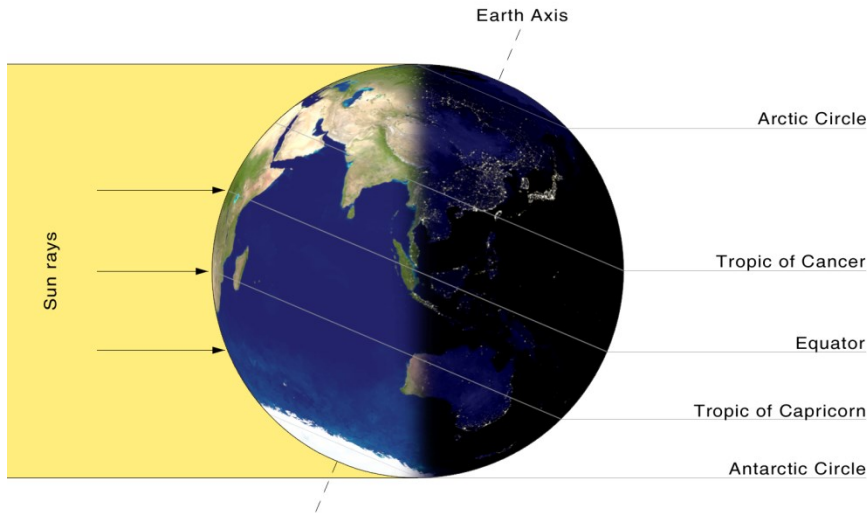
Unit 1

Rotational motion

It should be the succession of days and nights, with day time when our horizon is illuminated by the sun, and at night when the horizon remains hidden from the sun.

Half of the globe is illuminated, in that half is day while the dark side is dark.

In its rotational movement, the continents move from day to night and night to day.



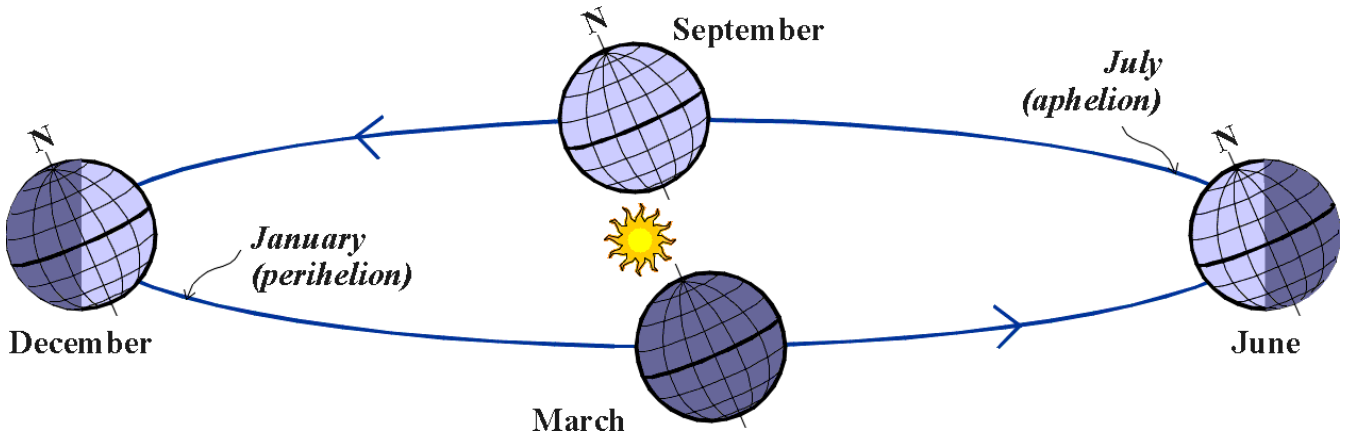
<http://www.youtube.com/watch?v=UVuqcEuIRgs>





Unit 1

Seasons



The year has four seasons are: spring, summer, autumn and winter



<http://www.youtube.com/watch?v=WLRA87TKXLM>

The Spring



Spring begins March 21 and ends on June 20.

The days begin to grow longer and temperatures are smoothed; heavy rains, the animals wake from their winter lethargy and begin to prepare for procreation, the birds that had migrated in the fall, they return to their nests, and plants take their first leaves, flowers and fruits.





The Summer

The Summer begins June 21 and ends on September 20. The days are long and the nights short, the rainfall is in the form of storm and temperatures are high. The animals treat their offspring and plants are full of leaves and fruits.





Unit 1

The Autumn

Autumn begins on September 21 and ends on December 20. The days grow shorter, the temperature drops and it rains a lot. The animals begin to prepare for the cold or migrate, the plants lose their leaves and mushrooms appear.



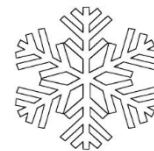
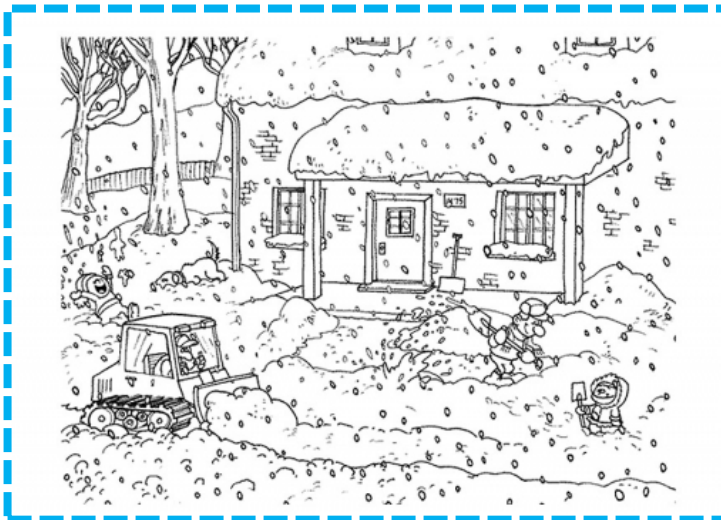
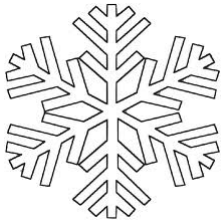


Unit 1

The Winter



Winter begins December 21 and ends on March 20. The days are short and the nights very long, very cold temperatures and precipitation as snow. Animals and plants have little activity. In Winter celebrate Christmas

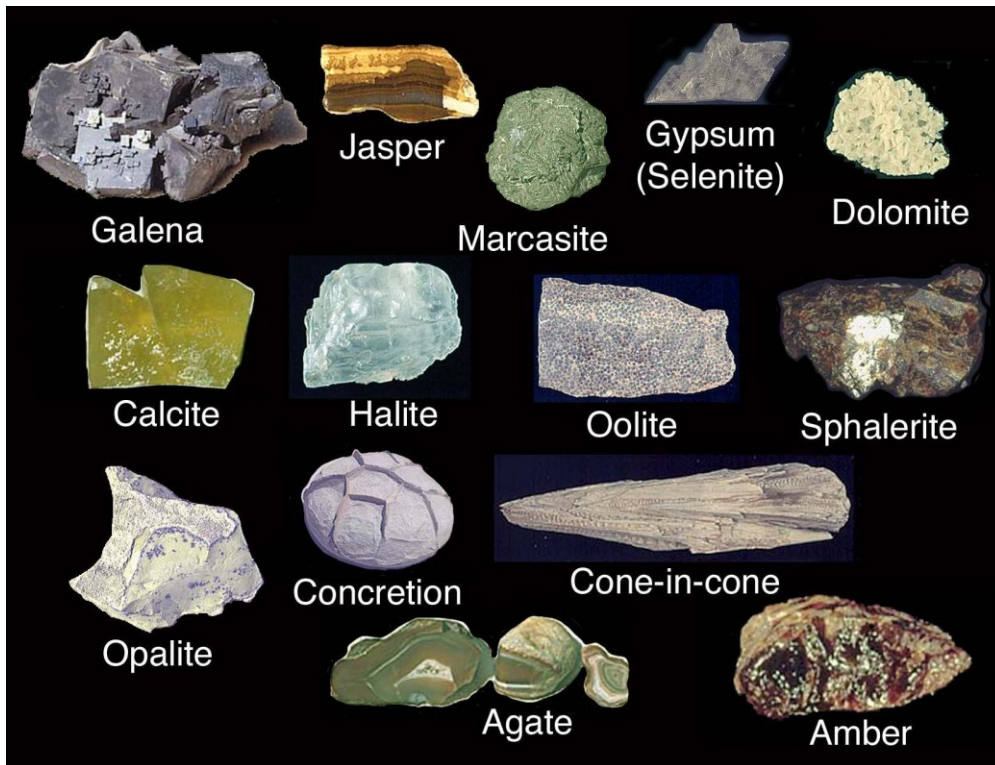




Earth organization

Rocks

A rock is a naturally occurring substance inert, ie, non-living, which consists of two or more types of minerals or mineral states.



The classification of rocks

The rocks are classified according to the training process that followed. There are three main groups of rocks: sedimentary, igneous and metamorphic.

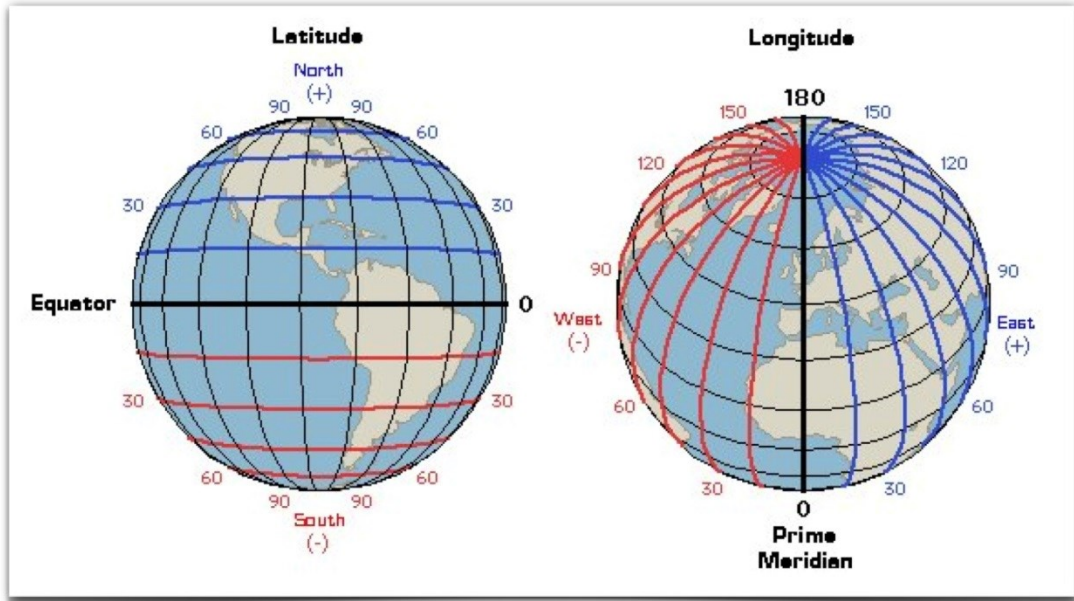
Have you ever gone to the beach and sunk your toes in the sand? In a few hundred years that sand will become part of a sedimentary rock!



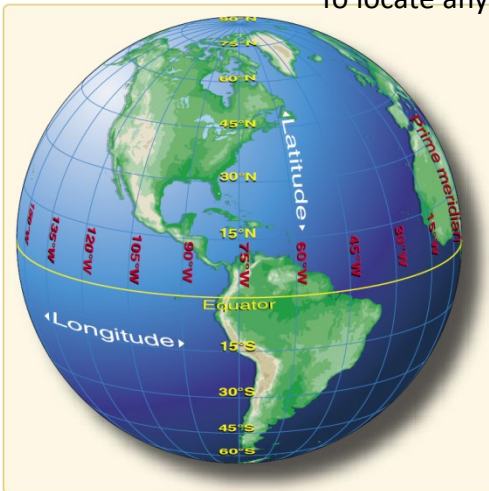


Unit 1

Finding a place on Earth



To locate any place on Earth use imaginary lines. These lines are:



- **equator**

It is an imaginary circle around the Earth and is located equidistant from the North Pole and the South Pole. Divide the world into two halves, called hemispheres: Northern Hemisphere and Southern Hemisphere.

- **parallels**

They are imaginary circles parallel to Ecuador. They are numbered by degrees, from Ecuador to the poles.

- **the meridians**

They are imaginary circles around the earth passing through the poles. They are numbered by degrees.

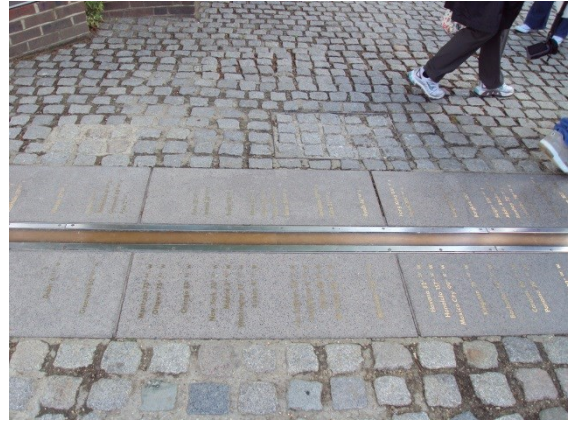




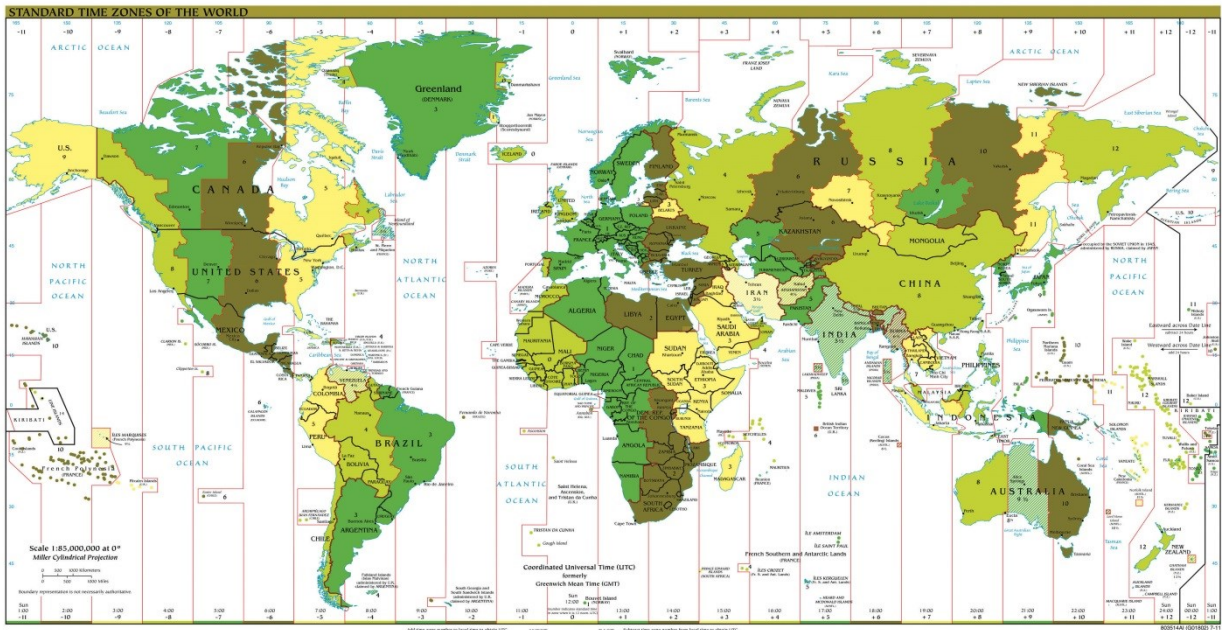
Unit 1

The Greenwich meridian is zero or girth linking the North Pole to the South Pole, passing through the town of Greenwich in Britain.

To locate a place we use latitude and longitude.



<http://www.youtube.com/watch?v=ChBhKPhB4VE>



the Latitude

Is the distance from one place to Ecuador. It is called North or south latitude latitude as the hemisphere in which such place is situated.

the Longitude

Is the distance from one place to the zero meridian or Greenwich. Length is called West or East longitude, as is located west or east of this meridian.





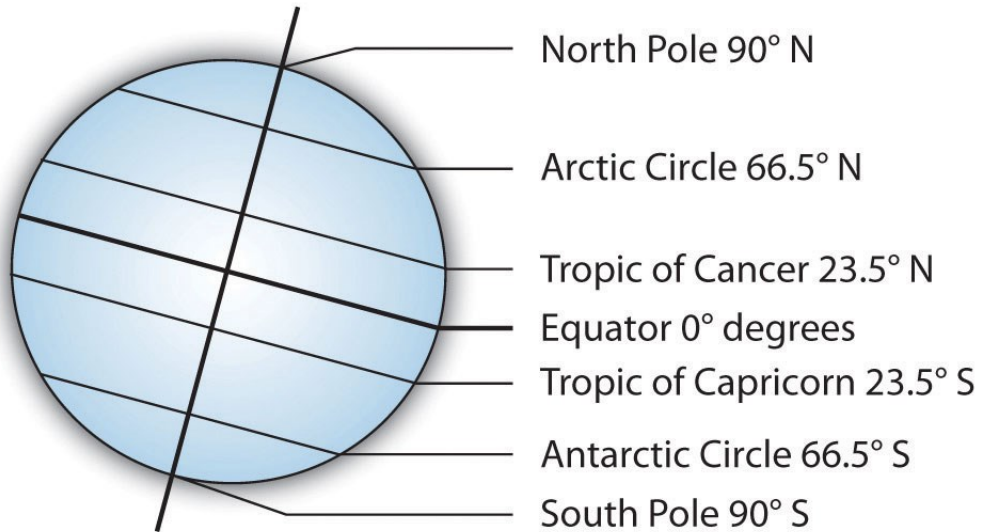
Unit 1

Parallel

The parallels are known for their angular distance (latitude) compared to Ecuador, but as this alone is imprecise it is not known if this distance is north or south of Ecuador (parallel 0°), further identified as parallel North and South parallel as they are north or south of Ecuador respectively. In the next paragraph you can see the name in brackets parallel four individuals.

In many globes and maps parallels are shown usually in multiples of 5°.

Also usually indicated by its special meaning are four parallels:



The parallels are used to measure the angular distance of any point on the surface of the earth north or south direction with respect to the imaginary line of Ecuador.

The Tropic of Cancer (23° 27'N) and the Tropic of Capricorn (23° 27'S), which mark the points further north and south of Ecuador where the sun's rays fall vertically, ie are the latitudes maximum reaching the sun in its apparent annual motion.

In the June solstice (21-22 June) the sun appears to be directly over the Tropic of Cancer while the December solstice (22-23 December) the sun appears to be directly over the Tropic of Capricorn.

The Arctic Circle (66° 33'N) and the Antarctic Circle (66° 33'S) that mark the points further north and south of Ecuador where the sun never sets on the horizon or not come out at certain dates (solstices) . From these circles to the poles respective number of days without sun increase and then decrease to the point that at the poles occur six months of darkness with another six months of daylight. The polar circles are equidistant from the poles to the tropics of Ecuador: $90^\circ - 23^\circ 27' = 66^\circ 33'$.





Meridians

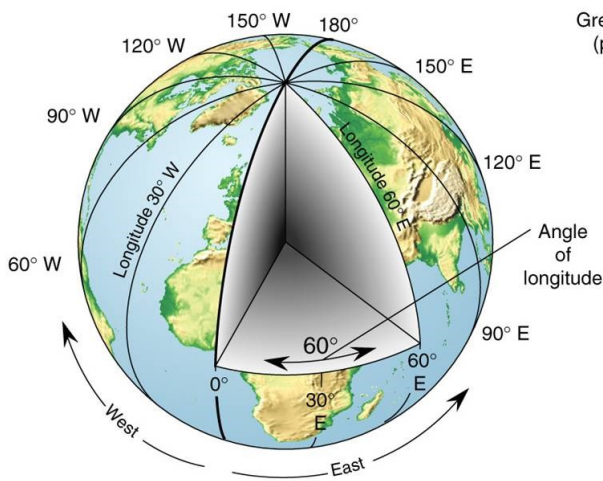
Semicircles passing through the poles are perpendicular to the Equator, something like the segments of an orange.

Each meridian is composed of two semicircles, one containing the meridian considered and another the opposite meridian (antimeridian). Each meridian and its anti-meridian divide the Earth into two hemispheres, western and eastern. The East will be located to the east of the West regarded and considered west.

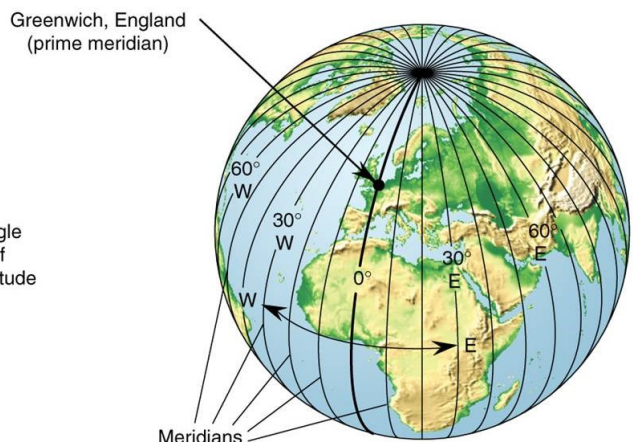
For any point on the Earth's surface can be traced a meridian.

A meridian "special" is that of Greenwich, which divides the Earth into two hemispheres: East or West located east of the meridian and West or western hemisphere west of it. Meridians are known, similar to the parallel, for their angular distance (length) with respect to the Greenwich meridian and to avoid inaccuracies are called meridians as being east or west to east or west of that meridian.

The meridians are used to measure the angular distance of any point on the surface of the Earth in an east or west from the meridian 0° (Greenwich).



(a)



(b)





Unit 1

Latitude

Latitude provides the location of a place north or south direction from Ecuador and is expressed in angular measurement ranging from 0° of Ecuador to 90° N North Pole or 90° S at the South Pole.

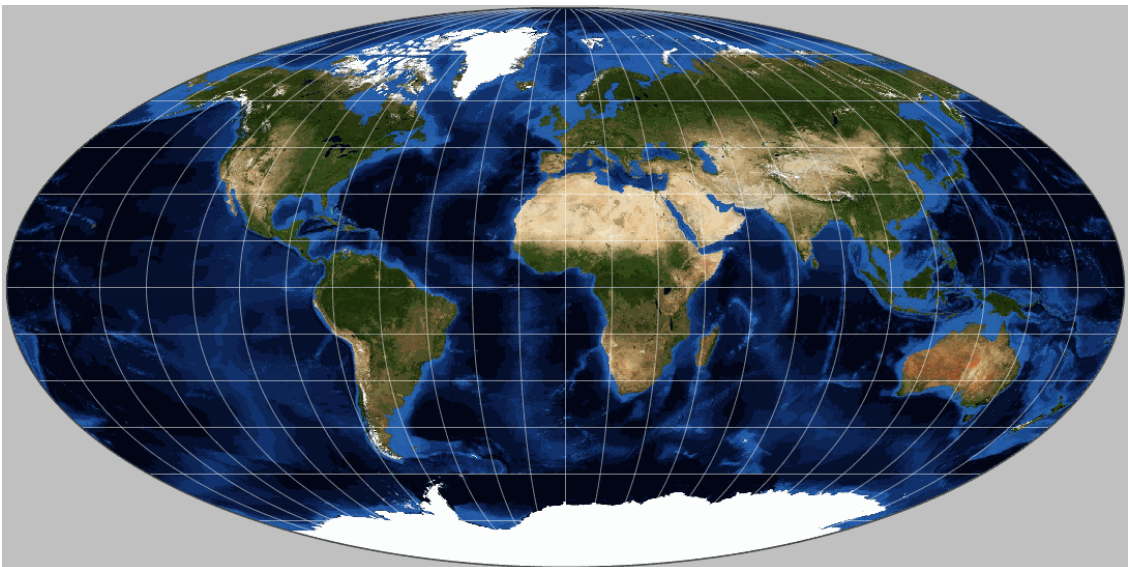
The Ecuador is the origin of latitude (parallel 0°), or the North-South angular distance of any point is defined as from the equatorial plane. The Ecuador is at 0° latitude and the poles at 90° N (north pole) and 90° S (South pole). The maximum value for both latitude is 90 degrees, and any point in the line of Ecuador have a latitude 0° .

Latitude is the angular distance from Ecuador to a given point on the Earth's surface. Points north of the Ecuador have latitude (N) are those located south latitude (S).

Longitude

The longitude provides the location of a place, heading East or West from the reference meridian 0° , also known as Greenwich Mean Time, expressed in angular measurements ranging from 0° to 180° E and 180° W.

Longitude is the angular distance from the meridian 0° (Greenwich) to a given point on the Earth's surface. Places located west of the 0th meridian (Greenwich) are West longitude (W) while located to the east of that meridian having longitude East (E).





Glossary

