

6th Grade Science

– Mrs. Rodriguez

Key Concepts in this Unit

6th Grade - Unit 3: Oceans, Atmosphere, and Climate

1. Energy from the sun is transferred to Earth's surface. Some of that energy is then transferred to the air above the surface.

2. The closer a location is to the equator, the more energy it receives from the sun. Therefore, a location's air temperature is affected by its distance from the equator.

3. An effect may have more than one cause; these may be linked into a chain of causes and effects.

4. When an ocean current comes from the equator, it brings warmer-than-expected water to the places it passes, and that water is warmer than the nearby air.

When an ocean current comes from a pole, it brings colder-than-expected water to the places it passes, and that water is colder than the nearby air.

5. Energy transfers from warmer substances to colder substances. Warmer currents transfer energy to cooler air, and warmer air transfers energy to cooler currents.

6. Prevailing winds and the position of continents determine the direction of ocean currents.

7. Changes to prevailing winds affect ocean currents. Changes to ocean currents affect how much energy is brought to (or taken away from) a location.

Vocabulary in this Unit

cause

an event or process that leads to a result or change.



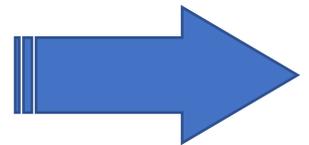
climate

general weather patterns over a long period of time.



climatology

the study of weather patterns over a long period of time.



continent

any of Earth's main continuous areas of land, such as Africa, Asia, and North America.



Vocabulary in this Unit

effect

a result or change that happens because of an event or process

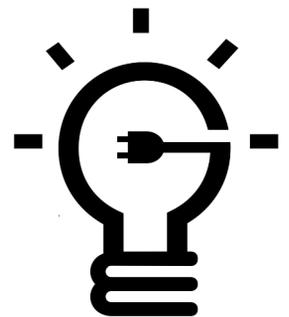
El Niño

a climate pattern where water near the equator gets hotter than usual and affects the weather around the world; El Niño happens in the Pacific Ocean



energy

the ability to make things move or change



equator

the imaginary line that divides Earth into northern and southern hemispheres (halves)



Vocabulary in this Unit

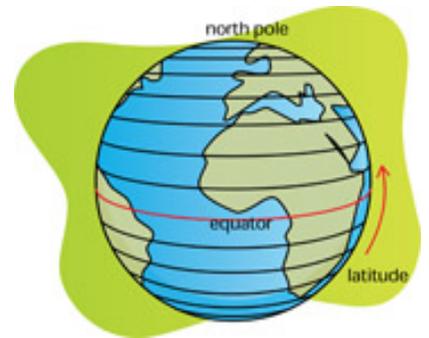
gyre

a giant pattern of moving water that spans whole oceans and moves water from place to place in a circle.



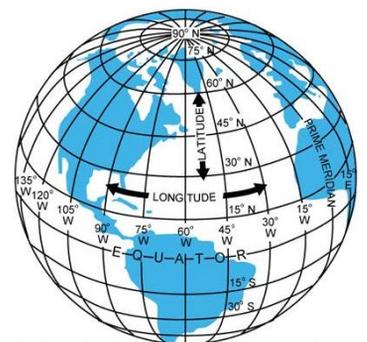
latitude

the distance of a place north or south of Earth's equator



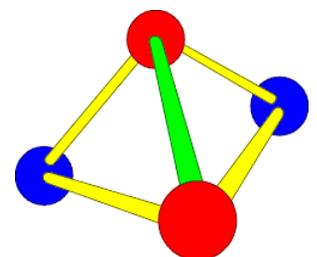
longitude

the distance of a place east or west of Earth's prime meridian



model

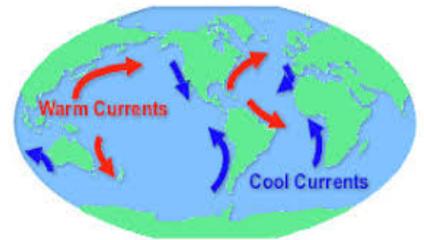
an object, diagram, or computer program that helps us understand something by making it simpler or easier to see



Vocabulary in this Unit

ocean current

ocean water flowing in a continuous path.



prevailing winds

winds that move in one direction and are strong enough to push ocean currents.

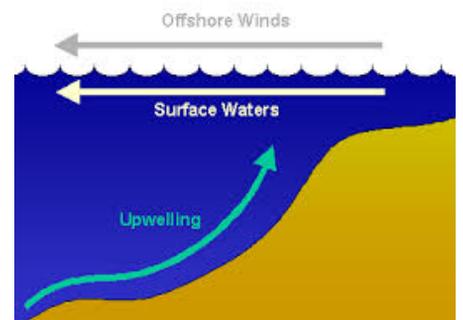


scientific community

scientists around the world who share information and ideas.

upwelling

a process in which deep, cold water rises toward the surface of the ocean.



Ocean, Atmosphere, and Climate Glossary

cause: an event or process that leads to a result or change

causa: un evento o proceso que provoca un resultado o cambio

climate: general weather patterns over a long period of time

clima: patrones atmosféricos generales que ocurren durante un periodo largo de tiempo

climatology: the study of weather patterns over a long period of time

climatología: el estudio de patrones del clima durante un periodo largo de tiempo

continent: any of Earth's main continuous areas of land, such as Africa, Asia, and North America

continente: cualquiera de las principales áreas continuas de terreno de la Tierra, como África, Asia y Norteamérica

effect: a result or change that happens because of an event or process

efecto: un resultado o cambio que ocurre debido a un evento o proceso

El Niño: a climate pattern where water near the equator gets hotter than usual and affects the weather around the world; El Niño happens in the Pacific Ocean

El Niño: un patrón climático en el cual las aguas cercanas al ecuador se calientan más de lo normal y afectan el clima de todo el mundo; El Niño ocurre en el Océano Pacífico

energy: the ability to make things move or change

energía: la capacidad de hacer que las cosas se muevan o cambien

equator: the imaginary line that divides Earth into northern and southern hemispheres (halves)

ecuador: la línea imaginaria que divide a la Tierra en dos hemisferios (mitades): norte y sur

gyre: a giant pattern of moving water that spans whole oceans and moves water from place to place in a circle

giro: un patrón gigantesco de agua en movimiento que abarca océanos enteros y mueve el agua de un lugar a otro en forma circular

latitude: the distance of a place north or south of Earth's equator

latitud: la distancia desde el ecuador de la Tierra hasta un lugar al norte o sur

longitude: the distance of a place east or west of Earth's prime meridian

longitud: la distancia desde el primer meridiano de la Tierra hasta un lugar al este u oeste

Ocean, Atmosphere, and Climate Glossary (continued)

model: an object, diagram, or computer program that helps us understand something by making it simpler or easier to see

modelo: un objeto, diagrama o programa de computadora que nos ayuda a entender algo haciéndolo más simple o fácil de ver

observe: to use any of the five senses to gather information about something

observar: usar cualquiera de los cinco sentidos para recolectar información acerca de algo

ocean current: ocean water flowing in a continuous path

corriente oceánica: agua del océano que fluye en una ruta continua

prediction: an idea about what might happen that is based on what you already know

predicción: una idea acerca de lo que podría suceder que está basada en lo que tú ya conoces

prevailing winds: winds that move in one direction and are strong enough to push ocean currents

vientos dominantes: vientos que se mueven en una dirección y son lo suficientemente fuertes para empujar corrientes oceánicas

scientific community: scientists around the world who share information and ideas

comunidad científica: científicos/as alrededor del mundo que comparten información e ideas

solar: related to the sun

solar: relacionado con el sol

surface: the outside or top layer of something

superficie: la parte exterior o la capa más externa de algo

temperature: a measure of how hot or cold something is

temperatura: una medida de qué tan caliente o frío está algo

transfer: to move from one object to another or one place to another

transferir: mover de un objeto a otro o de un lugar a otro

upwelling: a process in which deep, cold water rises toward the surface of the ocean

afloramiento: un proceso en el cual las aguas profundas y frías se elevan hacia la superficie del océano