

# Earth Materials

The various solids, liquids, and gases that make up the Earth



# Natural Resources

Earth materials in the environment  
that are useful to people



# Renewable Resources

Resources that nature can produce again and again in a relatively short time period



# Nonrenewable Resources

Resources that nature cannot replace quickly enough to meet people's needs



# Inexhaustible Resources

Resources that can never be used up  
or are abundant



Wind



Sunlight



Waves

# Fossil

The remains or traces of an organism that lived long ago



# Fossil Fuels

Fuels formed in the ground from the remains of dead plants and animals (examples: coal, oil, and natural gas)



# Mineral

A solid natural material that has a crystal form and its own set of properties





# Rock

A solid mixture of minerals that was formed in the Earth's crust



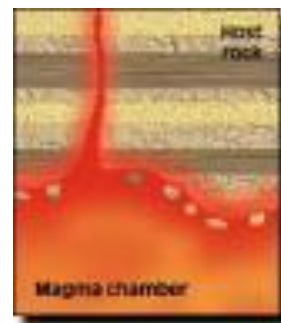
# Sedimentary Rock

Rock that formed when sediments were pressed and cemented together



# Metamorphic Rocks

Rocks that formed when another kind of rock was squeezed and heated deep inside Earth's crust



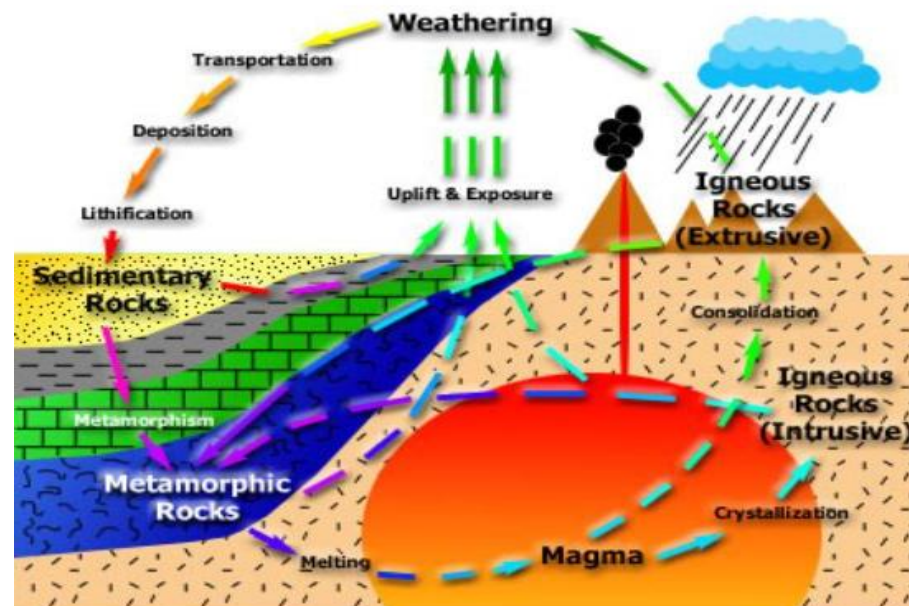
# Igneous Rock

Rock that formed from cooled magma  
or lava



# Rock Cycle

The process of rocks changing into another kind of rock



# Erosion

The movement of weathered material  
by water, wind, or ice



# Weathering

The breaking down and wearing away of rock



# Sedimentation

The deposition of sediments (rock, soil, sand, etc) to another area by gravity





# Deposition

The process in which materials eroded by water, wind, or ice is dropped in a new place



# Landform

A natural structure on Earth's surface



# Glaciers

A large body of moving ice that stays frozen all year



# Icecaps

Sheets of ice that cover areas around the North and South Poles



# Earthquake

A shaking of Earth's crust caused by rock slabs moving against each other deep below Earth's crust



# Volcanoes

A mountain build up from hardened lava, rocks, and ash that erupted out from the ocean floor



# Landslide

The sudden downhill movement of a huge mass of rock, soil, and mud



# Ocean

The vast body of salt water that covers almost three-fourths ( $3/4$ ) of the Earth's surface





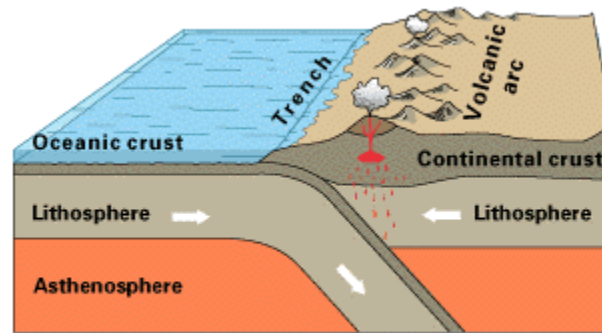
# Tide

Change in water level at the shoreline that is caused by the pull of gravity between Earth and the moon



# Tectonic Plate

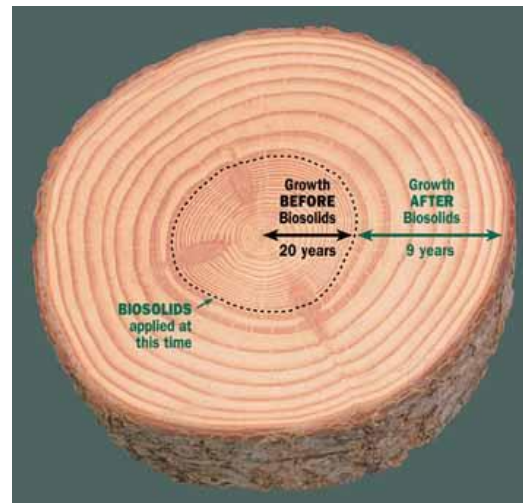
A huge piece of Earth's crust that moves very slowly



USGS

# Tree Ring

Variable width of rings produced by seasonal growth as observed in the horizontal cross section cut from a tree trunk; the number of rings observed corresponds to the age of the tree



# Geology

The study of Earth and its materials



# Geologist

A person who studies Earth



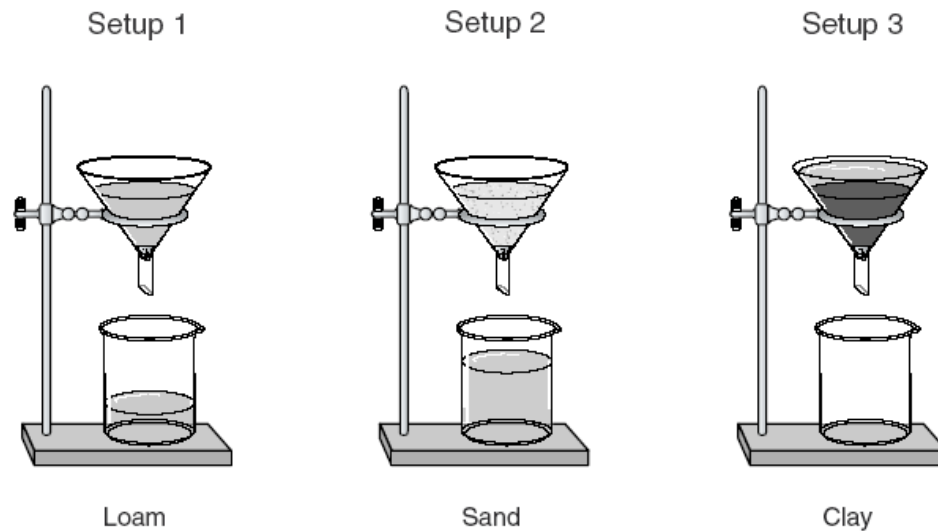
# Soil

A material made of tiny pieces of rock, minerals, and decayed plant and animal matter



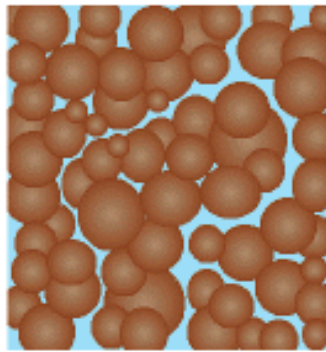
# Retain

To hold within; usually dealing with the retention of water in soil



# Permeability

Ability of rock to transmit fluids through pore spaces





# Humus

Decayed plant and animal materials in  
soil



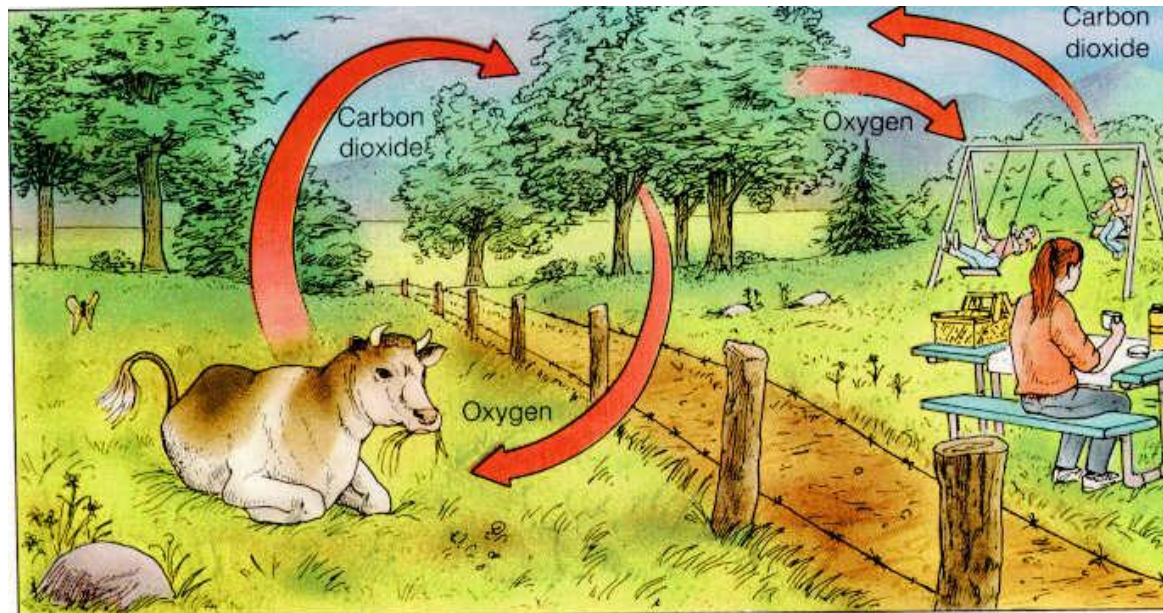
# Clay

Soil made up of extremely fine minerals usually silicates of aluminum and/or iron and magnesium; it is dense, heavy and sticky



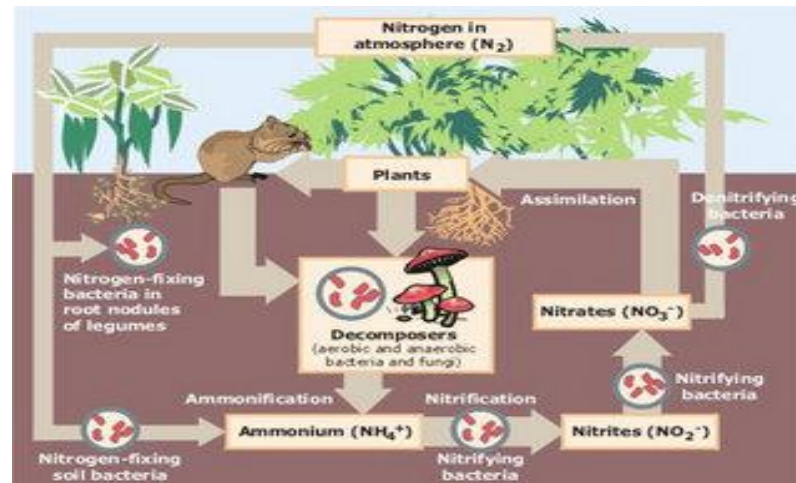
# Carbon Dioxide - Oxygen Cycle

The movement of carbon dioxide and oxygen between organisms and the air



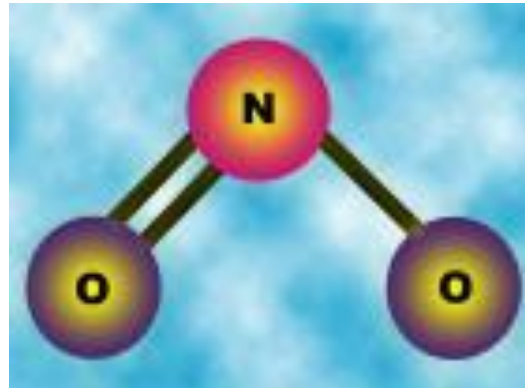
# Nitrogen Cycle

The movement of nitrogen between organisms and their surroundings



# Nitrogen

An element that plants need to grow and stay healthy, and that all organisms need to make protein



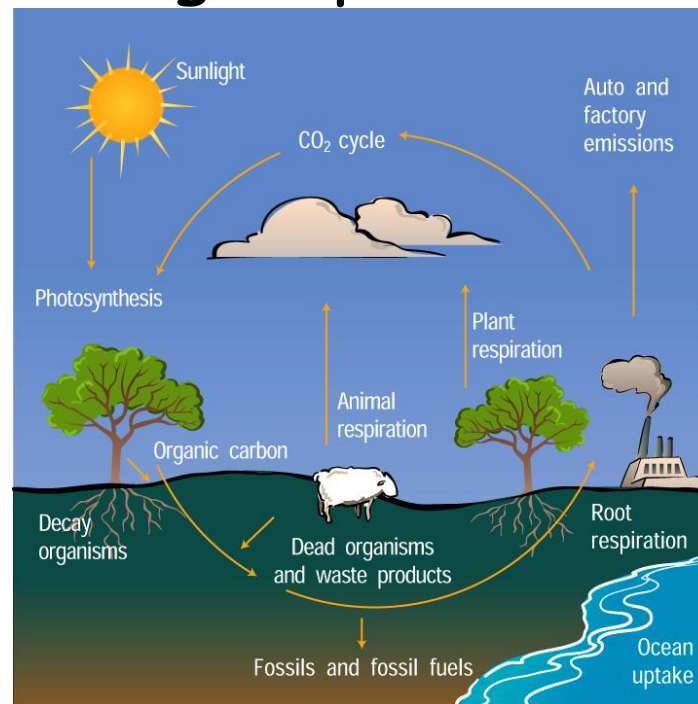
# Nitrates

Chemicals made up of oxygen, nitrogen and other elements; when chemicals containing nitrogen (for example, ammonia) combine with water, nitrates are usually formed



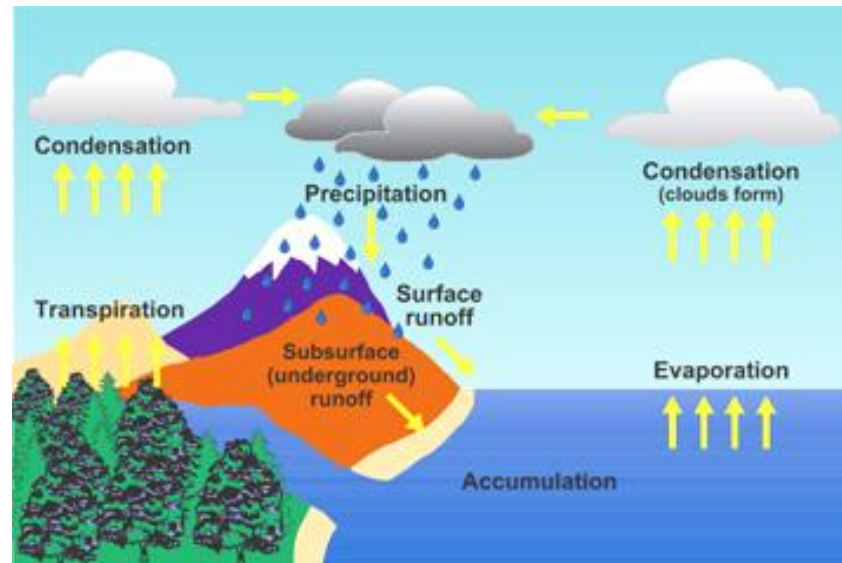
# Carbon Cycle

The movement of carbon, in its many forms, between the biosphere, atmosphere, oceans, and geosphere.



# Water Cycle

The change of water from one state to another as it moves between Earth's surface and the atmosphere





# Precipitation

The falling of water back to the Earth  
in the form of a liquid



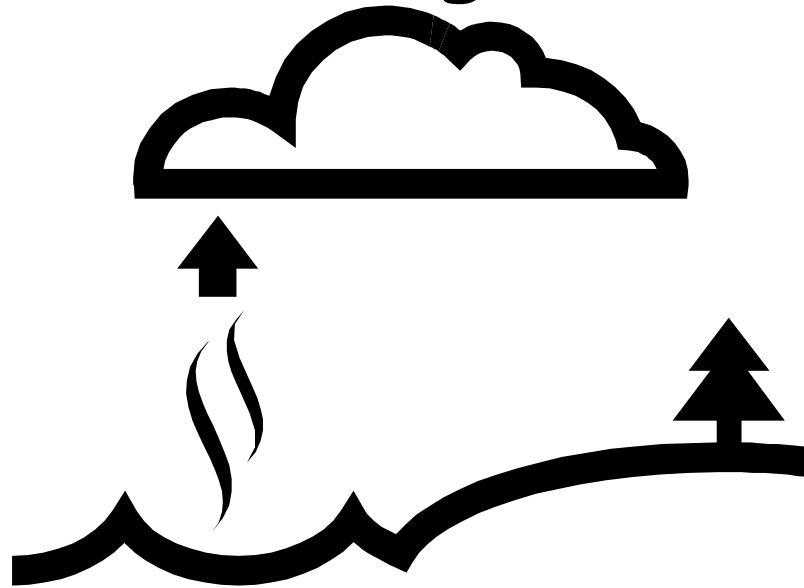
## Condensation

The process of changing from a liquid to a gas; formation of a cloud in the water cycle



## Evaporation

The process of changing from a liquid  
to a gas



# Run Off

Precipitation that falls over the ground and into oceans and rivers



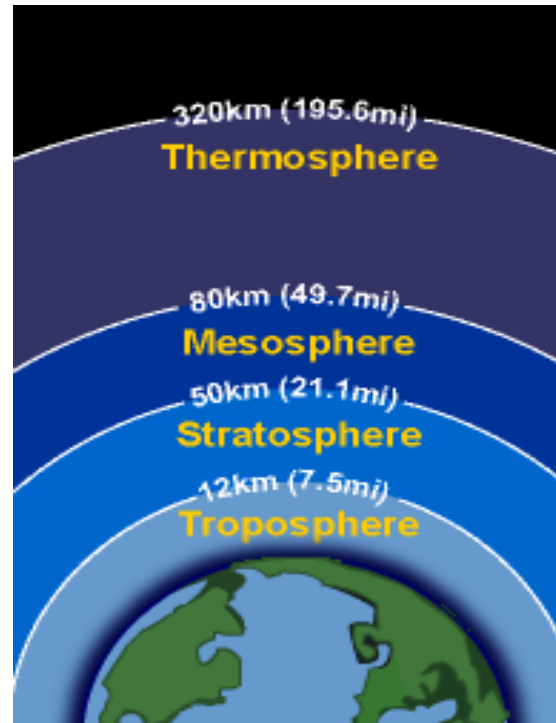
# Seasons

Generally based on broad climatic patterns;  
the year is typically divided into four seasons:  
spring, summer, autumn (fall), and winter



## Atmosphere

The air that surrounds the earth;  
divided into four layers



Hurricane

A very large and violent tropical storm



# Tornado

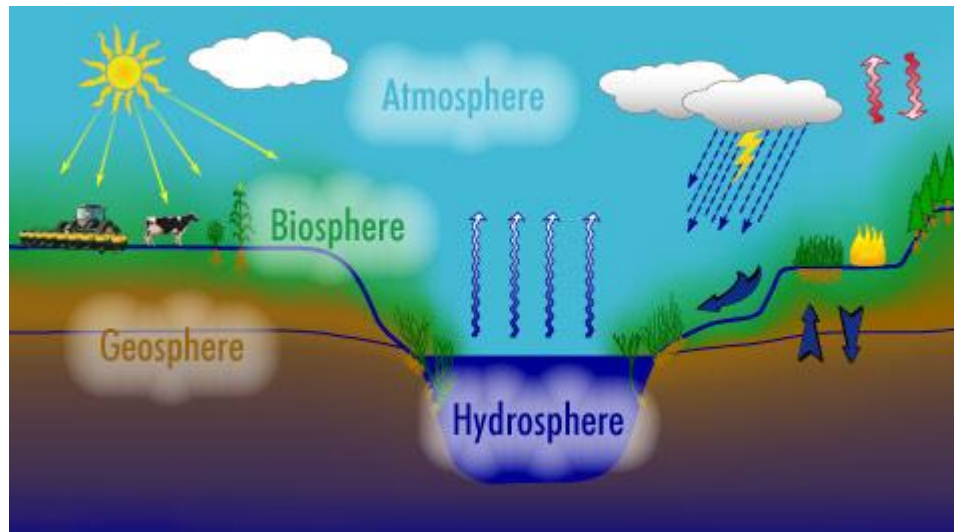
A dark funnel of strong winds that spiral upward





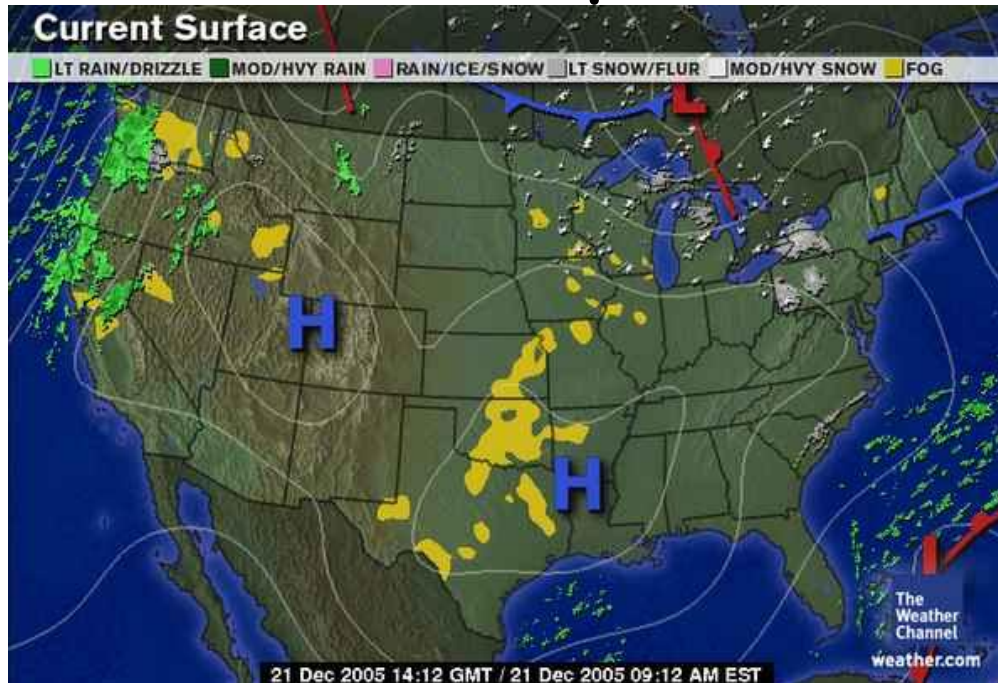
# Hydrosphere

All the liquid water and ice on Earth's Surface and liquid water in the ground



# Weather

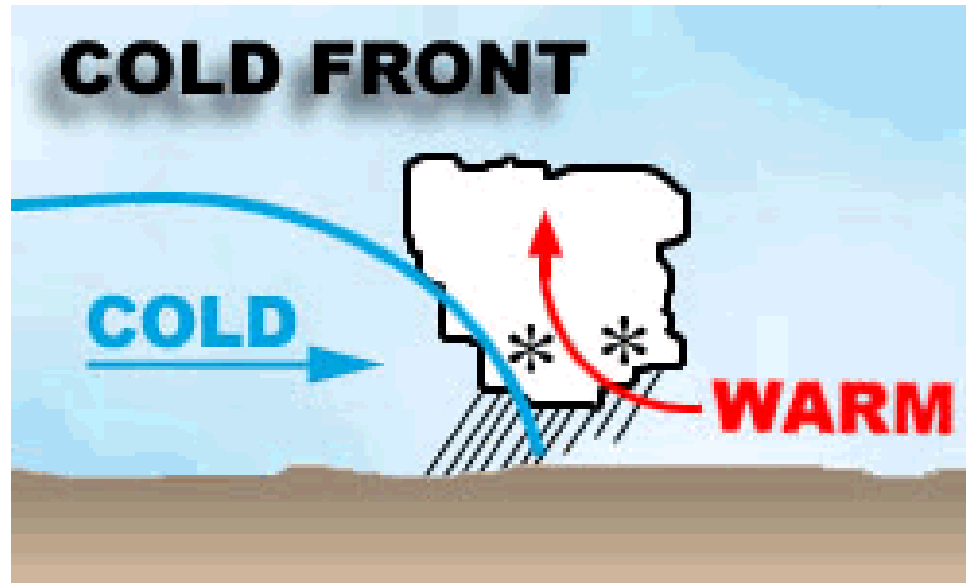
The condition of the atmosphere at a place for a short period of time





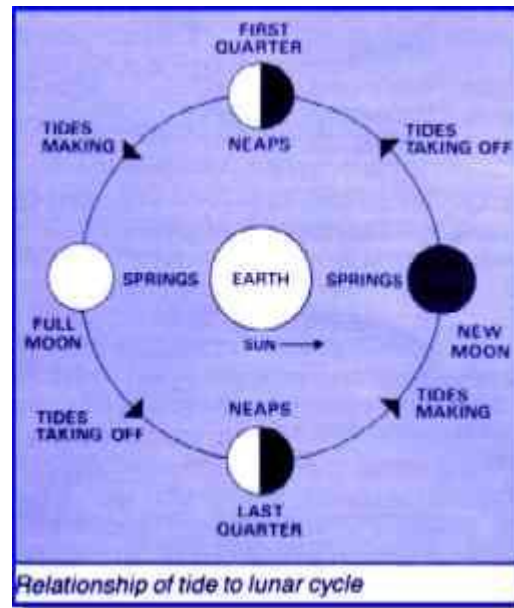
# Cold Front

The leading edge of a moving mass of cooler air



# Lunar Cycle

The different appearances of the moon throughout the month; phases of the moon



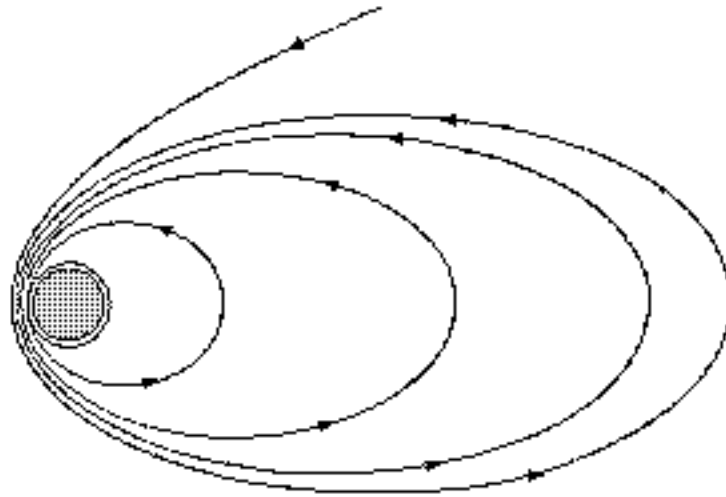
# Crater

A bowl-shaped structure at the top of a volcano or on a planet or moon



# Orbit

The path that one object in space takes around another object in space



# Moon

A natural object that orbits a planet





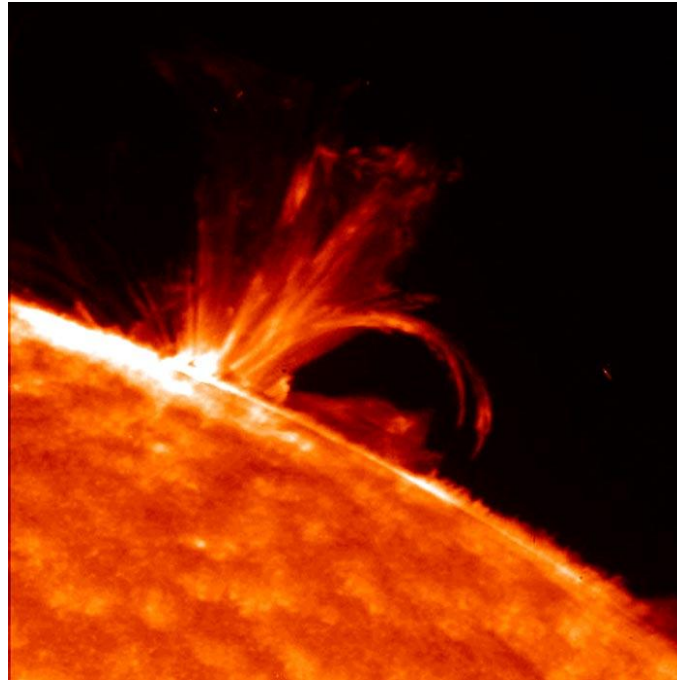
# Sun

A typical star that is the source of light and heat for the planets in the solar system



# Solar Flare

An eruption on the sun's surface



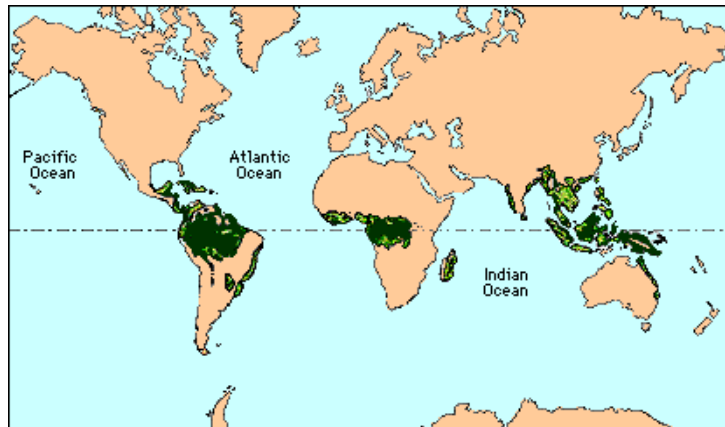
# Eclipse

One object in space casting its shadow on another object in space



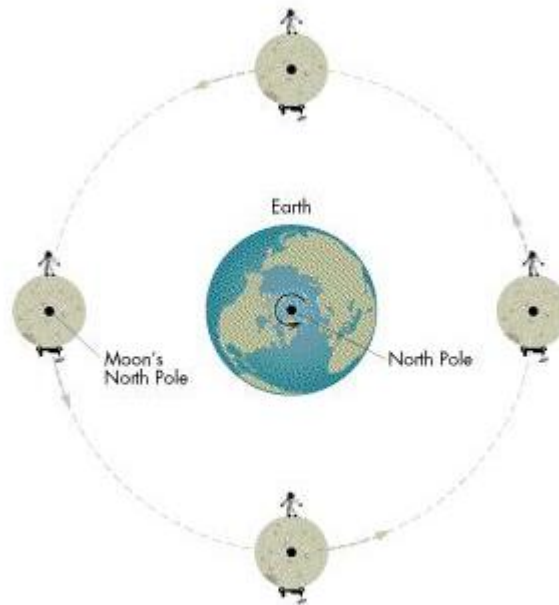
# Equator

An imaginary line that circle Earth halfway between the North and South Poles



# Rotation

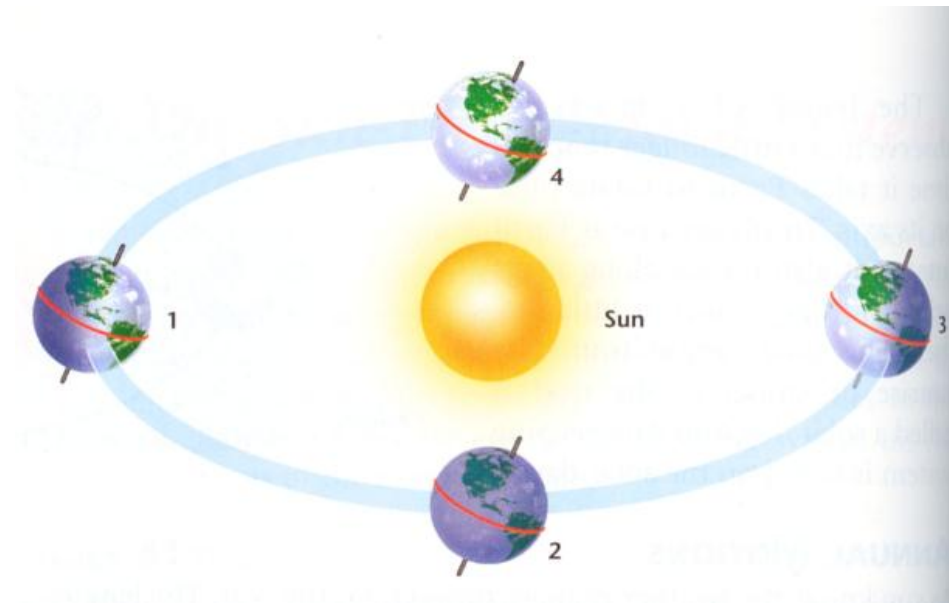
The spinning of a planet or moon on its axis



**A** No rotation: Both faces visible from Earth

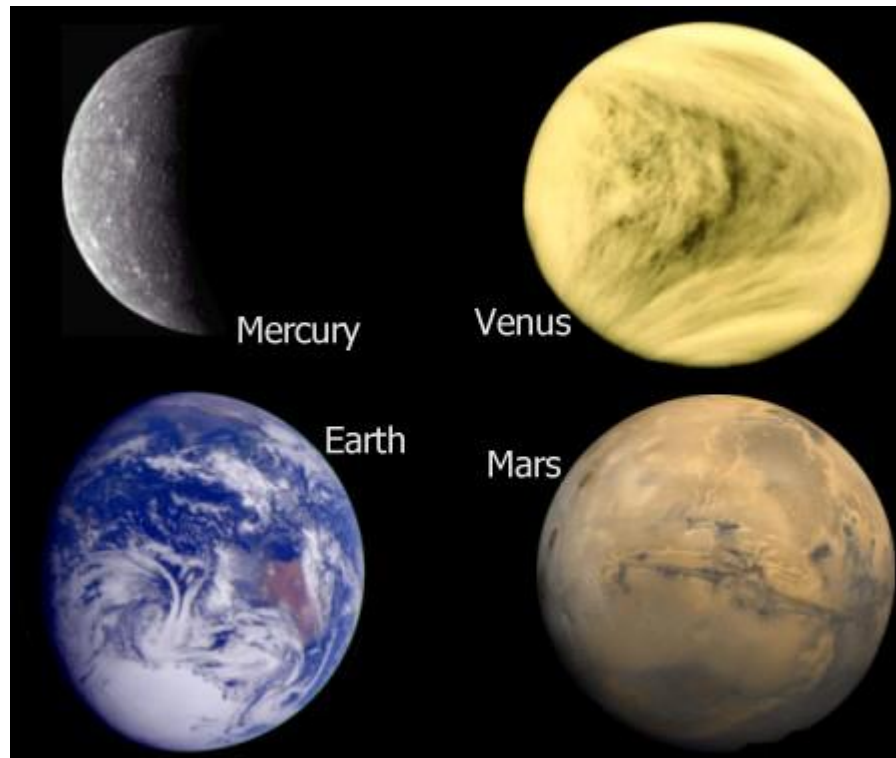
# Revolution

One complete trip of a planet or moon around a Sun or planet



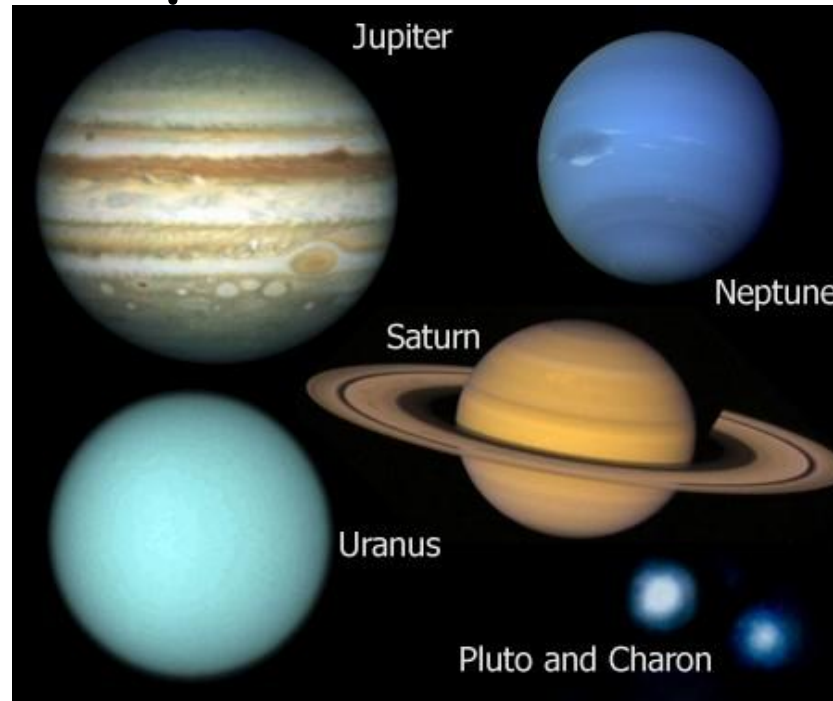
# Inner Planets

Mercury - Venus - Earth - Mars



# Outer Planets

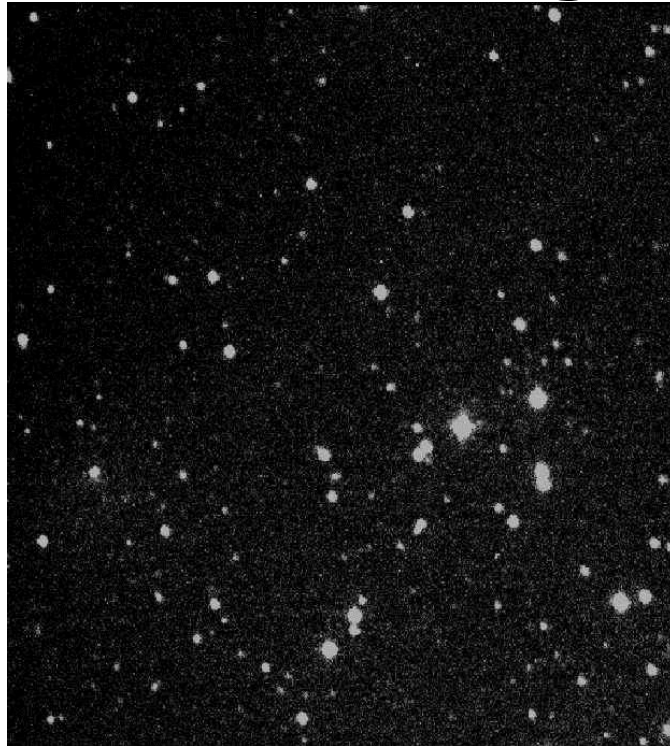
Jupiter - Saturn - Uranus -  
Neptune - Pluto





# Star

An object in space that produces its own heat and light



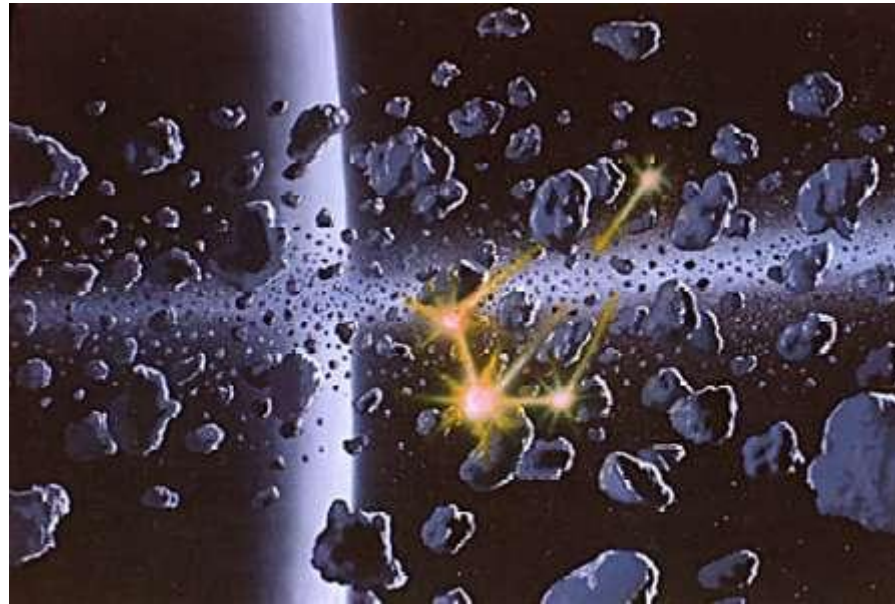
# Galaxy

A group of millions of stars



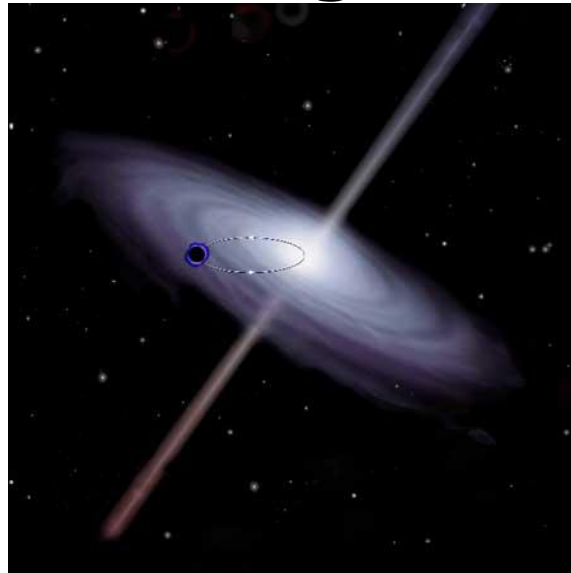
# Asteriod

A large space rock that orbits the Sun



# Black Hole

An object in space with gravity so strong that it pulls everything into it, even light



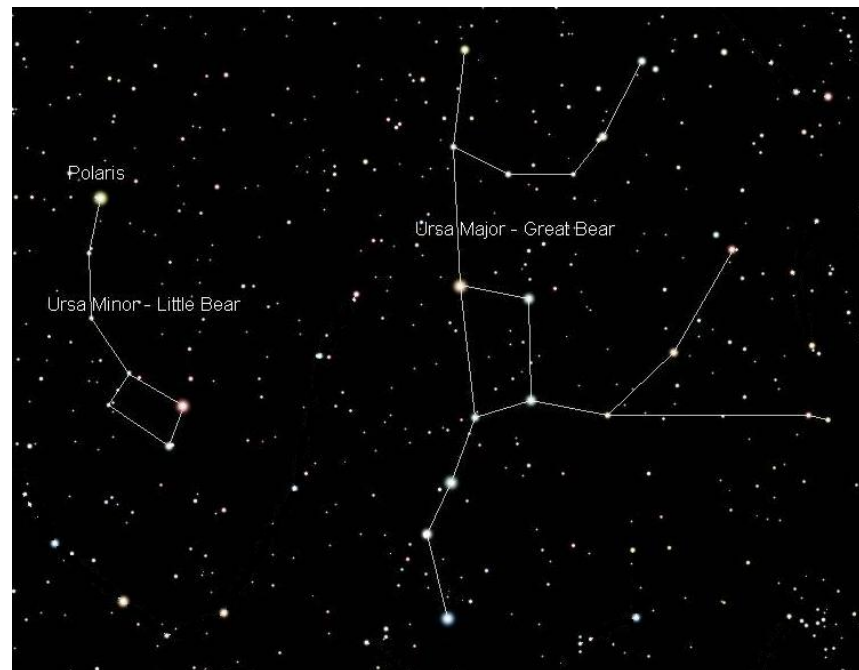
# Comet

A mountain-size chunk of ice and dust that orbits the moon



# Constellation

A group of stars that ancient people thought formed a picture in the sky



# Astronomy

The study of space science

