

Stile

albedo

Earth Systems

Stile

atmosphere

Earth Systems

Stile

biosphere

Earth Systems

Stile

carbon cycle

Earth Systems

Stile

carbon reservoir

Earth Systems

Stile

combustion

Earth Systems

Stile

conduction

Earth Systems

Stile

convection

Earth Systems

Stile

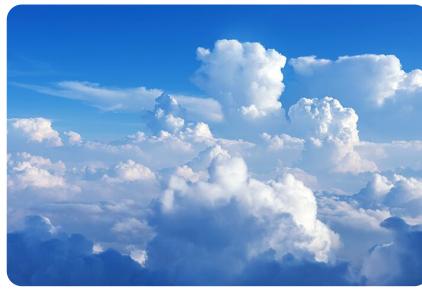
ecosystem

Earth Systems



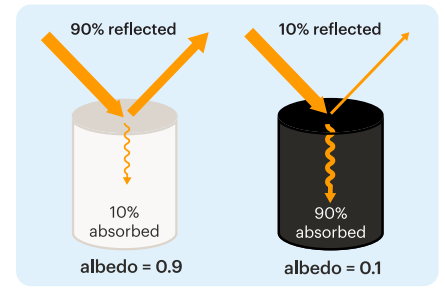
The collection of organisms in all their diversity

Organisms can be found in the atmosphere, geosphere and hydrosphere.



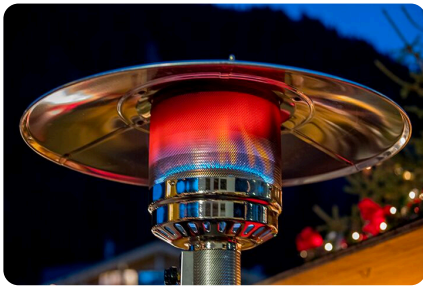
The gases surrounding a planet or moon, held by gravity

Earth's atmosphere is a mixture of 78% nitrogen, 21% oxygen, and 1% other gases.



A measure of how much incoming radiation a surface reflects

Albedo ranges from 0 to 1. A surface that reflects all the radiation hitting it would have an albedo of 1.



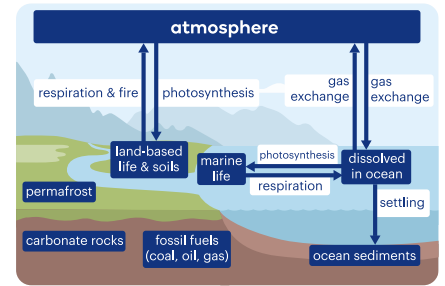
A reaction where a fuel reacts with oxygen and releases energy

The burning of coal, oil and natural gas are examples of combustion reactions.



A place on Earth that stores carbon for any period of time

Oceans, forests and soil can all act as carbon reservoirs.



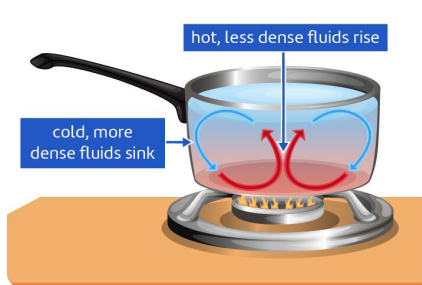
The movement of carbon within and between all four Earth systems

The carbon cycle involves processes such as burning, respiration and photosynthesis.



A community of interacting organisms and their environment

Ecosystems also include non-living components such as water, rocks, soil and sand.



The transfer of thermal energy by the flow of a fluid

When a fluid heats up, it becomes less dense and tends to rise, carrying thermal energy with it.



The transfer of thermal energy by direct contact

Conduction occurs when you iron a shirt. Thermal energy transfers from the hot iron to the shirt.

Stile

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evaporation

geosphere

glucose

Earth Systems

Earth Systems

Earth Systems

Stile

Stile

Stile

hydrosphere

photosynthesis

respiration

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**terrestrial
radiation**

water cycle

Earth Systems

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glucose (C₆H₁₂O₆)

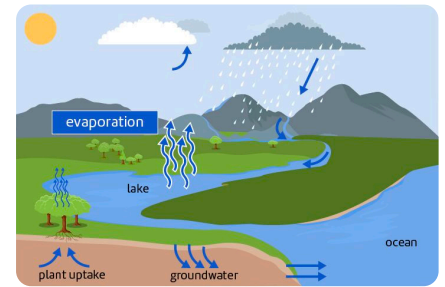
A simple sugar made up of carbon, hydrogen and oxygen

Glucose is produced in plants by photosynthesis and used as a source of energy in cellular respiration.



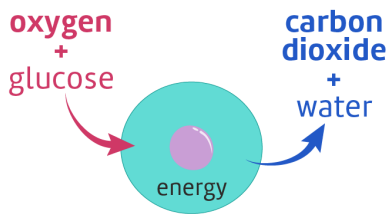
A planet's rocks, metals, soils, and sediments

The geosphere includes everything that makes up Earth's crust, mantle and core.



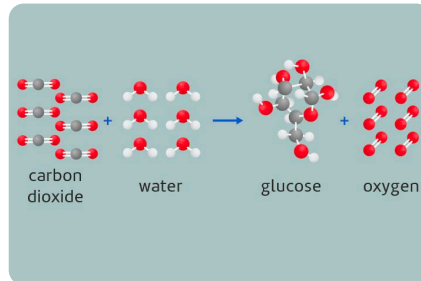
A change of state from liquid to gas

In the water cycle, water evaporates from oceans and lakes into the air.



The process used by all living cells to release energy

In cellular respiration, oxygen and sugar are converted into carbon dioxide and water.



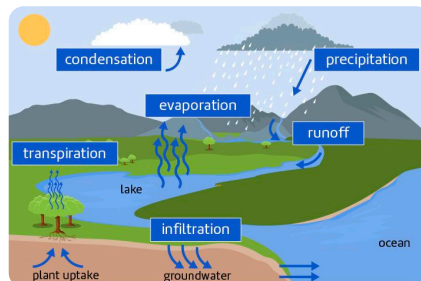
A reaction that transforms light energy into chemical energy

Photosynthesis is an endothermic reaction that occurs in plants, algae and some bacteria.



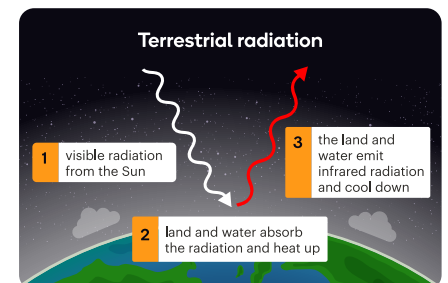
Water on or near the surface of a planet

The hydrosphere includes water in oceans, ice sheets, glaciers, rivers, lakes, groundwater, water vapour and clouds.



The continuous movement of water on Earth

The water cycle is our planet's way of recycling water. It involves many changes of state.



Heat emitted from the Earth's surface and atmosphere

Because air, land, and water aren't very hot, terrestrial radiation has long wavelengths and low energy.