

# Glossary

## A

Term	Definition
Active Transport	Use energy to "carry" substances into a cell
Air Mass	An air mass is a huge body of air that forms over a region characterizing it with a similar temperature, humidity and pressure at any given height.
Air Pressure	The weight of air pressing down on the Earth.
Altitude	height above sea level
Alto	A word prefix meaning mid altitude
Amoebae	Amoebae are single-celled life-form characterized by an irregular shape and move using pseudopodia, or temporary projections of eukaryotes.
Atmosphere	Blanket of gases surrounding a planet.
Autotrophs	Autotrophs are organisms that make their own food.

## C

Cell	Basic unit of structure and function in living things. It is the basic building block of life
Cell Membrane	Found in plant and animal cells
Cell Wall	It gives protection and support.
Chloroplast	Found in plant cells only
Chromatin	Chromatin is the combination of DNA and proteins that make up the contents of the nucleus of a cell.
Chromosome	They are found in the nucleus. They direct the production of proteins in the cell and are responsible for cell growth and reproduction.
Cillium	Cilium (cilia) are "hair-like" structures that outer membrane of some cells specialized for locomotion or movement.
Cirro	A word prefix meaning high altitude
Cirrus	The type of cloud formed from ice crystals at high altitudes
Cold Front	A cold front is defined as the leading edge of a cooler air mass, replacing or overtaking a warmer air mass.
Composition	The parts that make up a system.
Condensation	The process of a gas changing into a liquid
Control	A group or factor that is used for comparison
Convection	heat transfer within the atmosphere involving the upward movement of huge volumes of warm air, leading to subsequent condensation and cloud formation
Coriolis Effect	the observed deflection of something relative to the surface of Earth, caused by Earth's rotation beneath the object.
Cumulo	A work prefix meaning "heaped"
Cumulus	A type of cloud that is puffy or heaped in appearance, has distinct edges
Cytoplasm	Cytoplasm is a gel-like substance residing between the cell membrane holding all the cell's organelles, except for the nucleus.
Cytoplasmic Streaming	Cytoplasmic streaming is the directed flow of cytosol or the liquid component of the cytoplasm around plant cells.

## D

Density	The # of molecules in the same amount of space. (mass per unit of volume) $d = m/v$
Dependent Variable	The factor that changes as a result of the experiment and is measured or observed.
Deposition	The process of water vapor changing from a gas directly into a solid.

Dew Point	The temperature at which water vapor will start to condense out of the air as liquid water.
Diffusion	A process by which substances (other than water) move from a higher concentration of that substance

## E

Term	Definition
Euglena	Euglena is a protist that can both eat food as animals by heterotrophy; and can photosynthesize, like plants, by autotrophy.
Eukaryotes	Eukaryotes are cellular organisms that contain nuclei.
Evaporation	The process of a liquid changing into a gas
Exosphere	the fifth layer of the atmosphere extending into space

## F

Flagellum	Flagellum (flagella) are "tail-like " structure attached to the outer membrane of some cells specialized for locomotion or movement.
Fluid	A fluid is anything that flows and fills its container such as a liquid or a gas.
Fog	Clouds that form at the surface of the Earth.
Front	A front is the boundary separating 2 or more different types of air masses.

## G

Golgi Body	It is named after Camillo Golgi, who discovered its presence in cells in 1898. It has a structure that looks like a flattened collection of sacs and tubes like a stack of pancakes. These structures can be thought of as the cell's mailroom. They receive proteins and other newly formed materials from the endoplasmic reticulum, package them, and distribute them to other parts of the cell or outside of the cell.
Ground Water	Water that is beneath Earth's surface

## H

Heterotroph	Heterotrophs are organisms that cannot make their own food.
High Pressure Area/ System	A high pressure system is an area where the atmospheric pressure is greater than the rest of the atmosphere.
Humidity	The amount of water vapor in the air
Hurricane	A hurricane is another name for a tropical cyclone that typically forms in the Atlantic Ocean.
Hydrosphere	All of the Earth's water that is cycling within the water cycle.
Hypothesis	A guess based on prior knowlege.

## I

Independent Variable	The one part of the experiment that you change and test.
----------------------	--

## J

Jet Stream	a fairly narrow zone of very strong winds in the upper troposphere
------------	--

## L

Lightning	Lightning is an electrostatic discharge or the sudden and momentary flow of electric charge through the atmosphere between the clouds and the ground.
Low Pressure Area/ System	A low pressure system is an area where the atmospheric pressure is lowest compared to the surrounding area. Storms like tropical cyclones are called low-pressure cells.
Lysosome	Usually only found in animal cells

## M

Mesosphere	called the middle atmosphere, it is the coldest layer of the atmosphere, radio waves are reflected to Earth and meteors burn up in this layer, temperature continues to decrease with altitude
Meteorologist	A scientist who studies the atmosphere, weather and climate
Mitochondria	Found in plant and animal cells

Multicellular Multicellular organisms are composed of many cells.

## N

Term	Definition
Nimbo	A word prefix meaning rain
Nimbus	A word suffix meaning rain-ex.cumulonimbus
Nuclear Envelope	Double lipid bilayer, which is a physical barrier, separating the contents of the nucleus. Nuclear pores are in the nuclear envelope, which regulate the exchange of materials.
Nucleolus	This is the site where ribosomes are produced. Ribosomes are involved in the protein-making process in the cell.
Nucleus	Found in plant and animal cells

## O

Occluded Front	An occluded front is formed when a cold front overtakes a warm front and in the process "cuts off" the warm front from contact with the ground.
organelles	A specialized part of the cell, it means little organ.
Osmosis	Diffusion of water through a membrane
Ozone	a form of oxygen, O <sub>3</sub> , with a peculiar odor suggesting that of weak chlorine, produced when an electric spark or ultraviolet light is passed through air or oxygen. It is found in the troposphere after a thunderstorm or during periods of high temperature.
Ozone Layer	a layer of O <sub>3</sub> in the atmosphere In the upper atmosphere, it absorbs ultraviolet rays, thereby preventing them from reaching the surface of the earth.

## P

Paramecium	Paramecium is a group of unicellular protozoa, which are commonly studied as a representative of the ciliate group, or cilia movement.
Pattern	Something that repeats itself in a predictable way.
Phagocytosis	Phagocytosis is the cellular process of engulfing solid particles by reshaping the cell membrane.
Porous	full of holes or small spaces which allow the entry of water and air
Precipitation	Any type of liquid or solid water that falls to Earth's surface
Prefixes and suffix for the layers of the atmosphere vocabulary	Sphere: round
Prokaryotes	Prokaryotes are cellular organisms that lack a nucleus.
Properties	
Protists	Protists are eukaryotes that cannot be classified as animals, plants, or fungi.
Protozoa	Protozoa are a diverse group of single-cell eukaryotic organisms, many of which are motile.

## R

Content	Content
Ribosome (Free or Bound)	Found in plant and animal cells
Rough Endoplasmic Reticulum	Found in plant and animal cells
Run Off	Water that flows across the surface of the Earth.
Runoff	Liquid precipitation that is not absorbed into the ground

## S

Scientific Method	Organized method or process of gathering data to answer a hypothesis
Smooth Endoplasmic Reticulum	Found in plant and animal cells

Stationary Front	A stationary front is a boundary between two different air masses, neither of which is strong enough to replace the other.
Storm	A storm is any disturbance in the atmosphere, especially affecting its surface, and strongly implying severe weather marked by strong wind, thunder, lightning, and heavy precipitation.
Storm surge	A storm surge is an offshore rise of water caused primarily by high winds pushing on the ocean's surface which force the water to pile up higher than the ordinary sea level.
Stratosphere	where most jets fly, where the ozone layer is found, atmosphere is drier, ozone here absorbs and scatters UV radiation
Stratus	the type of cloud forms in horizontal layers and blankets the sky
Sublimation	The process of water changing from a solid directly into a gas.

## T

Term	Definition
Temperature	Average kinetic energy of the molecules in a substance
Thermosphere	The 4th layer that also contains the ionosphere
Thermosphere (former called Ionosphere)	temperatures can be very hot in this layer, known as upper atmosphere, temperature increases with altitude- it is the hottest layer, aurora lights occur here, may also be called the ionosphere
Thunder	Thunder is a sonic shock wave (sonic boom) created from the rapid expansion & explosion of the air molecules surrounding and within a bolt of lightning, due to increases in pressure and temperature.
Thunderstorm	A thunderstorm, is a weather phenomena that results from the rapid upward movement of warm, moist air inside air masses or at fronts and are characterized by the presence of cumulonimbus clouds, lightning, thunder, and different types of precipitation.
Tornado	A tornado is a violent, dangerous, rotating column of air that is in contact with both the surface of the earth and a cumulonimbus cloud or, in rare cases, the base of a cumulus cloud.
Transpiration	The process of water evaporating from the leaves of plants during photosynthesis.
Tropical Cyclone	A tropical cyclone is a storm system that develops over large bodies of warm water at specific temperatures and is characterized by a large low-pressure center surrounded by numerous rotating thunderstorms that produce strong winds and heavy rain which can also produce high waves, damaging storm surge, as well as spawning tornadoes.
Troposphere	Layer of the atmosphere nearest to Earth, where weather occurs and airplanes fly, temperature drops as altitude increases, where people live, known as lower layer of atmosphere
Typhoon	Typhoon is the name given to a tropical cyclone that typically forms in the western Pacific & Indian Oceans.

## U

Unicellular	Unicellular organisms are single-celled.
-------------	--

## V

Vacuoles	Found in plant and animal cells - BUT there is only one large vacuole in plant cells, and animal cells have a few little ones.
Volvox	Volvox is a type of green algae and forms spherical colonies of up to 50,000 cells who live in a variety of freshwater habitats.

## W

Warm Front	A warm front is defined as the leading edge of a warm air mass overtaking a cooler, slower air mass.
Water Cycle	The repeating processes that move water in different forms between Earth's surface and the atmosphere
Water Vapor	Water in the atmosphere that is in the form of a gas.
Weather	The condition of Earth's atmosphere at a particular time and place
Weather patterns	Weather that repeats itself in a predictable way.