

Vocabulary: Unit 9: Meteorology, Part 1: Earth's Atmosphere

atmosphere	The envelope of gases surrounding the Earth or another planet.
humidity	The amount of water vapor in the air.
particulates	Particles of dust, soil, fecal matter, metals, salt, smoke, ash, and other solids that make up a small percentage of the atmosphere.
altitude	The height of an object or point in relation to sea level.
temperature gradient	A distinct change in temperature with altitude.
troposphere	The lowest region of Earth's atmosphere in which temperature decreases with height and all weather takes place.
stratosphere	The layer of the Earth's atmosphere above the troposphere that increases in temperature with altitude and contains the ozone layer.
ozone layer	A layer in the Earth's stratosphere within the stratosphere, containing a high concentration of ozone, which absorbs most of the ultraviolet radiation reaching the Earth from the Sun.
mesosphere	The region of the Earth's atmosphere above the stratosphere and below the thermosphere where temperature decreases with altitude.
thermosphere	The region of the atmosphere above the mesosphere and below the height at which the atmosphere ceases to have the properties of a continuous medium, characterized throughout by an increase in temperature with height.
ionosphere	The layer of the Earth's atmosphere that contains a high concentration of ions and free electrons and is able to reflect radio waves.
magnetosphere	The region surrounding the Earth in which its magnetic field lines are present.
aurora	A glow in a planet's ionosphere caused by the interaction between the planet's magnetic field and charged particles from the Sun.
exosphere	The outermost layer of Earth's atmosphere and the boundary to space.
electromagnetic waves	Waves of energy that have both electrical and magnetic properties.
albedo	The measure of how well a surface reflects light.
temperature	The measure of how fast a material's particles are moving; measure of kinetic energy.
heat	The measure of how much energy a material contains.
latent heat	The heat required to convert a solid into a liquid or vapor, or a liquid into a vapor, without change of temperature.
specific heat	The amount of energy needed to raise the temperature of one gram of the material by 1.0° C (1.8° F).
ultraviolet radiation	The highest energy solar radiation.
infrared radiation	The longest wavelength, lowest energy solar radiation that is felt as heat.
Greenhouse Effect	The phenomenon whereby the Earth's atmosphere traps solar radiation, caused by the presence in the atmosphere of gases such as carbon dioxide, water vapor, and methane that allow incoming sunlight to pass through but absorb heat radiated back from the Earth's surface.
sea breeze	A breeze blowing toward the land from the sea, especially during the day owing to the relative warmth of the land.
land breeze	A breeze blowing toward the sea from the land, especially at night, owing to the relative warmth of the sea.
monsoon winds	Winds caused by a seasonal reversing wind accompanied by corresponding changes in precipitation.
valley breeze	A gentle wind blowing up a valley or mountain slope during the day, caused by the warming of the mountainside.
mountain breeze	A breeze that blows down a mountain slope at night due to the gravitational flow of cooled air.