

CAIE Geography Pre-U

1B: The Atmospheric Environment Glossary of Definitions



Glossary of Definitions - 1B The Atmospheric Environment

Air masses- Parcels of air which have the same temperature, humidity and lapse rate.

Albedo- The ratio between incoming radiation and the amount reflected, expressed as a percentage.

Aspect- Compass direction that a slope faces.

Climate Change- When changes in the Earth's climate system result in new weather patterns that last at least a few decades.

Climate classification- The formalisation of systems that recognise, clarify and simplify climatic similarities and differences between geographical areas.

Cold front- Where advancing cold air undercuts the body of warm air.

Conduction- The transfer of heat energy through a material.

Convection- Heat transfer due to the movement of molecules within fluids.

Coriolis force- The apparent deflection of objects that are moving in a straight path relative to the Earth's surface and is due to the rotation of the Earth.

ENSO- The El Nino Southern Oscillation (ENSO) is irregular periods of changing wind speeds and the resulting change in the ocean currents in the Pacific Ocean.

Empirical Classification- Classifying climates based on their effects within the area.

Enhanced Greenhouse Effect- The enhanced greenhouse effect is an elevated and imbalanced greenhouse effect, caused by human activities and pollution.

Genetic classification- Classifying climates based on their causes.

Global energy budget- The balance between the energy that the Earth receives from the sun and the energy that it radiates back into space.

Global Warming- Long-term rise in the average temperature of the Earth's climate system.

Greenhouse Effect- The process by which radiation from the Earth's atmosphere warms the planet's surface to a temperature above what it would be without the atmosphere.

Insolation- Total amount of solar radiation energy received at a certain time on a given surface area.

ITCZ- The inter-tropical convergence zone is where the northeast and southeast trade winds converge and is a belt of low pressure that circulates near the equator.

Jet Streams- Narrow zones of high-speed winds that are found high up in the atmosphere.



Latent heat- The amount of heat energy needed to change the state of a substance without affecting its temperature.

Monsoon- The seasonal reversal in winds and the subsequent change in precipitation.

Negative feedback- Where the primary effect starts a process which then decreases the stimulus and the loop breaks down.

Occluded front- Where a cold front catches up with a warm front.

Orographic rainfall- Rain that is produced from moist air being lifted over mountains.

Primary feedback- Where the primary effect of the loop starts a process which in turn increases the primary effect. This continues in a loop and continues to enhance the stimulus.

Polar front- The transition boundary between tropical maritime air and polar maritime air.

Radiation- The transmission or emission of energy by particles or waves through a material or through space.

Rossby waves- Large, horizontal atmospheric undulation.

Specific heat capacity- The amount of heat required to raise the temperature of a substance.

Warm front- Where warm air is advancing and being forced to override the cold air.

