

Key terms for Theme 5

Weather, Climate and Ecosystems

Terms used in **red font** are used in the specification. It would be reasonable to expect question setters to use these terms. Other terms and their definitions have been provided by WJEC to support those learners who are extending their range of specialist geographical terms. The lists are provided as word documents so that you can edit them to suit the learning activities in your school.

Climate change

Aerosol	Tiny particles of dust, volcanic ash and gas in the atmosphere that can reflect the sun's energy back into space. This can cause cooling of the climate.
Carbon sinks	Places where carbon is stored over very long periods of time, for example, in fossil fuels.
Carbon-neutral	An activity in which any carbon dioxide emissions are equal to carbon being stored.
Desertification	When the climate of a dry region becomes even drier. Vegetation dies or is eaten by grazing animals and the soil becomes vulnerable to soil erosion.
Glacials	Cold periods in Earth's history when glaciers have advanced and ice sheets increased in size.
Global cooling	The cooling of the climate at a global scale. This process can occur if the sun's radiation is blocked too much dust (aerosols) in the atmosphere.
Greenhouse effect	A process which traps longwave radiation in the atmosphere. This process is natural but has been enhanced (made stronger) by extra greenhouse gases.
Greenhouse gases (GGs)	Gases such as carbon dioxide and methane. These gases are able to trap heat in the atmosphere.
Inter-glacials	Warmer periods in Earth's history when glaciers have retreated and ice sheets have decreased in size.
Long wave radiation	Energy in the form of heat that is given off by the Earth. Some long wave energy is absorbed by greenhouse gases.
Quaternary	The most recent period of geological time in Earth's history.
Short wave radiation	Energy in the form of light that is emitted by the sun. Most short wave energy passes through the Earth's atmosphere.

Weather and climate

Air mass	A large parcel of air in the atmosphere. All parts of the air mass have similar temperature and moisture content at ground level.
Anticyclone	A high pressure system in the atmosphere associated with dry, settled periods of weather.
Aspect	The direction in which a slope or other feature faces.
Continental climate	The climatic condition of large land masses heating up and cooling down very quickly.
Cyclone	A low pressure system in the atmosphere associated with unsettled weather, wind and rain.
Depression	A weather system associated with low air pressure. Depressions bring changeable weather that includes rain and windy conditions.
Drought	A long period of time with much less precipitation than normal.
Leeward side	The side of a hill or mountain that is sheltered from the wind.
Maritime climate	The climatic condition of land close to sea. The sea moderates temperatures meaning that there are only small variations in temperature.
Monsoon	A climate type experienced in South Asia in which a seasonal pattern of wind brings a distinct wet season.
Ocean currents	Predictable flows of water through the seas and oceans.
Tropical rain belt (ITCZ)	A zone between the tropics of Cancer and Capricorn that has a lot of rainfall.
Unstable	Warm air that is rising may be described as unstable. Unstable air causes clouds to build up and form rain.
Urban heat island	When a city has temperatures that are warmer than in the surrounding rural area.
Urban micro-climate	The small scale, local climate of a large city which is influenced by its buildings and traffic.
Windward	The side of a mountain that faces into the wind.

Ecosystems

Biodiversity	The variety of living things.
Biomes	Very large scale ecosystems e.g. tropical rainforests or deserts.
Canopy	The upper layer of a forest.
Cloud forest	A type of tropical rainforest that grows in upland or regions.
Ecosystem	A community of plants and animals and the environment in which they live.
Key services	The way in which ecosystems provide benefits for people.
Lowland tropical rainforest	A type of forest that grows at lower altitudes in the tropics. The Amazon rainforest is an example.
Mangrove forests	A type of tropical forest that grows in coastal regions.
Mono-culture	A type of agriculture (farming) in which only one crop is grown over very large areas of land.
Nutrient cycles	The movement of minerals, through an ecosystem, from one store to another.
Taiga	Natural forest ecosystems found in the cold climates of Northern Europe and America.
Tropical rainforest	Large forest ecosystems (or biomes) that exist in the hot, wet climate found on either side of the equator.
Tundra	A treeless ecosystem largely found in the Arctic region.
Wildlife corridor	Where habitats (such as forests) are joined by strips of habitat (such as hedgerows). These corridors allow the movement of wildlife.