

Edexcel Geography GCSE

Hazardous Earth Glossary of Definitions

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Glossary of Definitions - Hazardous Earth

Asthenosphere - The semi-molten layer at the top of the mantle which flows due to convection currents, moving the solid lithosphere above.

Atmospheric circulation - The general movements of air around the Earth due to pressure and temperature.

Climate change - A distinct change in global or regional patterns of climate, such as changes in temperature or precipitation patterns.

Conservative plate boundary - A plate boundary where two plates are moving alongside each other.

Continental crust - The thicker, less dense crust that makes up the continents.

Convection current - The movement of a fluid caused by a difference in temperature or density.

Convergent plate boundary - A plate boundary where two plates are moving towards each other.

Coriolis Effect - The effect of the Earth's rotation on wind movements.

Cyclone - A tropical cyclone that hits Oceania or Madagascar.

Divergent plate boundary - A plate boundary where two plates are moving away from each other.

Eccentricity - The changing of the orbit of the Earth around the Sun from a circular shape to an ellipse.

Eye - An area of a tropical cyclone with extremely low pressure and calm conditions.

Eyewall - An area of a tropical cyclone with the most intense, powerful winds and torrential rain.

Ferrel Cell - At around 60° either side of the equator, moist air rises, and travels to lower latitudes at around 30° where it sinks, along with air travelling from the equator.

Fossil fuels - Fuels made up of the remains of organic material, such as oil, coal and gas.

Geological hazard - A hazard caused by processes on the land.

Greenhouse Gases - Gases in the Earth's atmosphere that trap energy in the Earth's system and contribute to the greenhouse effect (carbon dioxide, methane, water vapour and nitrous oxides).

Hadley Cell - At the equator, hot moist air rises, moves to higher latitudes (30°) and sinks.

Hazard risk - The probability that a natural hazard will negatively affect a population.

Hotspot - An area where unusually hot magma breaks through the middle of a plate and travels up to the surface, creating a volcano.



Hurricane - A tropical cyclone that hits the USA, Latin America or the Caribbean.

Ice core - A cylinder of ice extracted from an ice sheet or glacier, which is used to analyse past environmental conditions.

Immediate responses - Actions taken as soon as the hazard happens and in its immediate aftermath (hours, days, and potentially a week or so after the event).

Inner core - A solid ball of iron/nickel at the Earth's centre. Radioactive decay within the inner core provides Earth's internal energy.

Inter-Tropical Convergence Zone (ITCZ) - An area surrounding the equator where global winds converge, causing an area of low pressure with rainy conditions.

Lithosphere - Solid rock that lies on top of the asthenosphere. The top of the lithosphere is the crust, which is broken up into tectonic plates.

Long-term responses - Actions taken after the immediate responses when the effects of the hazard have been minimised (weeks, months, and years after the event).

Magma - Molten rock found beneath the Earth's surface.

Mantle - The area underneath the crust which contains magma.

Milankovitch Cycles - The cyclical variations in the Earth's orbit around the Sun.

Natural hazard - A naturally occurring event that is a threat to a population.

Obliquity (or axial tilt) - The tilt of the Earth's axis, which changes from 21.5° and 24.5°.

Ocean currents - The predictable, continuous circulation of ocean water which transfers heat around the globe.

Oceanic crust - The thinner, denser crust that makes up the ocean floor.

Outer core - A molten layer of iron and nickel that surrounds the inner core and transfers energy by convection currents.

Plate boundary - The point at which two plates meet.

Polar Cell - At 60° north or south of the equator, moist air rises, and travels to the poles (90°), where it sinks.

Precession - The 'wobble' of the Earth's axis.

Pressure belt - A region of the Earth which is generally under the same pressure.

Primary effects - The effects that are directly caused by the hazard itself.



Quaternary Period - The geological time period that started 2.6 million years ago and extends into the present.

Richter scale - A logarithmic scale used to measure the magnitude of earthquakes.

Secondary effects - The effects that are a result of the primary effects.

Storm surge - A rise in sea level caused when a tropical cyclone pushes a large amount of sea water onto the shore.

Subduction - A process that occurs at a destructive plate boundary when a plate is pushed below another plate, forcing it to sink into the asthenosphere.

Tectonic hazard - A natural hazard caused by the physical processes and movements of tectonic plates.

Tectonic plates - Large slabs of the Earth's crust that sit and move on top of the liquid mantle.

The Enhanced Greenhouse Effect - A process where the Earth's surface is heated by the greenhouse effect at a higher rate due to increased greenhouse gas emissions from human activities.

The Greenhouse Effect - A natural process where greenhouse gases trap the energy from the Sun inside the Earth's atmosphere, warming the Earth's surface.

Track - A typical pathway that a tropical cyclone takes which is driven by global wind circulation.

Tree rings - A ring in a tree trunk that grows annually, indicating the conditions in the year it grew.

Tropical cyclone - A very large, spinning storm with high winds and torrential rain that forms in the tropics.

Tsunami - A large wave caused by a large amount of water being displaced when plates move.

Typhoon - A tropical cyclone that hits India, Japan or the Philippines.

