Science glossary
Year 9

Terms	Meaning
active volcano	a volcano that has erupted within the past 600 years
asthenosphere	the lower part of Earth's mantle which is fluid, thus allowing the plates of lithosphere to 'float' on top
continental drift	the movement of Earth's continents in relation to each other
continental shelf	an extension of the continent which projects under the sea, resulting in relatively shallow water
convection	heat transfer within fluids from one part of the fluid to another
convergent plate boundaries	boundaries where two lithospheric plates are moving towards each other, resulting in collision zones and/or subduction zones
crust	the thin surface layer surrounding Earth's mantle, consisting of a thick, less dense continental layer and a thin, more dense oceanic layer
divergent plate boundaries	boundaries where two lithospheric plates are moving away from each other
Earth's polarity	the direction of Earth's magnetic field
earthquake	seismic activity that occurs due to a release of pressure and movement in the lithosphere
epicentre	the point on Earth's surface that is immediately above the focus of an earthquake
extinct volcano	a volcano that has not erupted for at least 10 000 years and is not expected to erupt again in a comparable time frame
focus	the location where an earthquake begins and from which seismic waves radiate
hotspot	a volcanic region, far from tectonic plate boundaries, where magma rises through weak spots in the lithosphere and produces volcanoes on Earth's surface
inner core	the centre of Earth, which is the hottest part and believed to be composed mainly of iron
latitude	the number of degrees that a location lies north or south of Earth's equator
liquefaction	a process whereby water-saturated soil sediment loses strength and acts like a fluid after a force has been applied (such as the force from an earthquake)
lithosphere	the rigid layer of Earth formed by the upper mantle and the crust
longitude	the number of degrees that a location is east or west of the Royal Observatory, Greenwich, in London
magma	a mixture of molten or semi-molten rock, volatiles and solids that is found beneath the surface of Earth
magnetic striping	when materials within the magma align to Earth's magnetic field

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mantle	the viscous layer under Earth's crust, composed of two parts: an upper part that is less fluid and a lower part that is heated by the core, resulting in convection currents
mantle plume	an uprising of magma that is hotter than the surrounding Earth's crust forming hotspots
Mid-Atlantic Ridge	ridge on the sea floor in the Atlantic Ocean that stretches from Iceland to Antarctica; the ridge splits Europe from North America and South America from Africa
mid-ocean ridge	a raised area of the sea floor formed at a divergent plate boundary when tectonic plates move apart, allowing magma to rise to the surface and form undersea mountain chains
ocean trench	a deep channel that forms when a continental plate and oceanic plate collide (converge) and the oceanic plate is pushed beneath (subduction) the continental plate
outer core	the liquid layer of Earth between the solid inner core and the mantle
Pacific Ring of Fire	area in and surrounding the Pacific Ocean where volcanic eruptions and earthquakes occur
Pangaea	the original supercontinent containing the entire land mass of Earth; initially divided into two smaller supercontinents, Laurasia and Gondwana
plate boundaries	the place where lithospheric plates meet; types of plate boundaries are: convergent, divergent and transform
rift valley	a valley formed as a result of the boundaries of lithospheric plates moving in opposing directions, leading to the separation of the plates either in part or completely
sea floor spreading	process whereby new oceanic crust is formed; occurs at mid-ocean ridges due to volcanic activity
seismometer (or seismograph)	a device that measures the intensity and duration of earthquakes
subduction zone	formed where oceanic crust meets continental crust, causing less dense continental crust to override denser oceanic crust
tectonic plate	a section of the lithosphere that moves over the asthenosphere
transform plate boundary	place where tectonic plates move sideways past each other, for example: San Andreas Fault
tsunami	a large-volume, destructive ocean wave caused by an underwater earthquake or mass movement such as a landslide
volcanic eruption	a violent outburst of lava, rock, ash and gases originating from a volcano
volcanic track	the volcanic path created by a tectonic plate moving over a stationary hotspot
volcano	a geological feature formed when magma rises to Earth's surface and escapes through an opening in the crust