

1. alpha particle	a helium nucleus given off by a radioactive nucleus	16. law of superposition	in a sequence of sedimentary rocks or lava flows, each layer is younger than the one beneath it and older than the one above it
2. andesitic volcanism	a type of silica-rich explosive eruption named after the Andes Mountains	17. mid-oceanic ridge	a mountain range or deep valley running under the world's oceans
3. asthenosphere	that part of the upper mantle beneath the rigid lithosphere that is plastic enough for rock flowage to occur	18. neutron	an atomic particle found in the nucleus of atoms that has almost the same mass as a proton but no electrical charge
4. beta particle	an electron given off by a radioactive nucleus	19. pangaea	the crescent-shaped supercontinent made up of all the present continents fitted together to form one large landmass; plate tectonics is believed to have split pangaea into laurasia and gondwana and later into the present-day continents
5. conservative boundary	a transform boundary between crustal plates where no new crusts forms and no old crust is destroyed; also known as a passive boundary	20. parent isotope	during radioactive decay, the isotope that emits a particle to form a different daughter isotope
6. continental drift	the formation and break up of continents caused by the movement of landmasses on the surface of the Earth	21. plate tectonics	the theory that the surface of the earth is divided into a number of constantly moving crustal plates; this crustal plate movement can be used to explain the present positions of the continents and hence the present distribution of living things
7. daughter isotope	the element formed during radioactive decay of the parent isotope	22. proton	a positively charged particle found in the nuclei of all atoms; it has a single positive charge that just balances the negative charge of an electron and has a mass almost the same as a neutron
8. electron	the negatively charged particle that orbits the atomic nucleus. The chemical properties of elements depend on the number and arrangement of these electrons	23. qualitative	descriptive rather than numerical
9. exponential growth	a very rapid increase in numbers	24. radioisotope	an isotope of an element that emits radioactive particles
10. fohn wind	a warm, dry wind on the opposite side of a mountain range from where the wind comes; as the air moves over the mountain range and down the other side, the air sinks and warms, causing clouds to vanish; this results in dry air that not only decreases rainfall but also increases evaporation on the other side of the mountains	25. radiometric dating	the determination of ages of rocks, minerals and once living material by measuring the levels of certain radioactive elements
11. gamma radiation	that part of the electromagnetic spectrum with the shortest wavelength	26. relative age	the use of the terms era, period or epoch of the geological times scale; for example, to say a fossil is Devonian says it is older than fossils found in the Carboniferous but younger than a fossil from the Silurian
12. gondwana	an ancient continent believed to have existed during the Palaeozoic and Mesozoic times that eventually split up to form Australia, India, Antarctica, Africa and South America	27. subduction	the process by which one crustal plate descends beneath another, such as along a deep ocean trench
13. half-life	the time it takes for half a sample of radioactive atoms to decay	28. trench	a long, narrow and usually steep-sided depression, such as in the ocean floor where one plate of the earth's crust is sliding over another
14. laurasia	the ancient landmass that comprised the present day continents of North America, Europe and Asia		
15. law of cross-cutting relationships	if rock layers are crossed by another layer at an angle, the cross-cutting layer will be the youngest		