

absolute dating

determining the age in years for a rock or fossil e.g. by use of radiometric dating

adaptive radiation

the development of a number of new species from one ancestral species

banded iron formations (BIFs)

banded chemical sedimentary rocks consisting of alternating iron-rich and silica-rich layers; a major source of iron ore

carbonisation

the process of converting a carbon-containing material to carbon by removal of other components

cast

to give a shape to a substance by pouring liquid or plastic into a mould and letting it harden without pressure

chemosynthesis

the process that produces organic compounds from inorganic compounds using chemical energy

chromosomal mutation

mutation involving changes in the number or structure of the chromosomes

cyanobacteria

a group of photosynthetic microorganisms classified as either plants or bacteria because they possess characteristics of both plants and bacteria

environment

an organism's physical and biological surroundings; the conditions under which an organism lives

eon

one of four divisions of the geological time scale: Phanerozoic, Proterozoic, Archaean and Hadean

evolution

the biological changes that have taken place as life changed from simpler to more complex organisms

fossil

the remains of a once living thing, or direct evidence of its presence (e.g. tracks), as preserved in rocks

gene or point mutation

mutation involving a change in the chemical structure of the DNA which makes up the genes on the chromosome

geographical isolation

a term that refers to a population of animals, plants, or other organisms that are separated from exchanging genetic material with other organisms of the same species

half-life

the time it takes for half a sample of radioactive atoms to decay

isotope

any two or more atoms of a chemical element with the same atomic number and nearly identical chemical behaviour but with differing atomic mass

kingdom

the five major groups into which living things are divided e.g. plants, animals, fungi, monera and protista

law of superposition

the idea that, 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

lithosphere

solid mantle and crust of the Earth

megafauna

extinct but giant versions of many reptiles and mammals well known today