

<b>Relative Dating</b>		
<b>Absolute Dating</b>		
Law of superposition	Looking at layers in the ground – lower layers are older	Any Time
Stratigraphic Correlation	The process of matching up strata from several sites through the analysis of chemical, physical, and other properties	Any Time
Biostratigraphic (faunal) dating	Uses associations of fossils in strata to determine each layer's approximate age – draws on the 1 <sup>st</sup> appearance of an organism in the fossil record, its evolutionary development, and extinction	Any Time
Fluorine Dating	Dating method that compares the accumulation of fluorine in animal and human bones	<100,000yBP
Index Fossil	Fossils that are from specified time ranges, are found in multiple locations, and can be used to determine age of associated strata	Any Time
Cultural Dating	Use of material objects to provide date information	2.5 mya
Dendrochronology	Use of tree ring # (1 ring = 1 year) to provide a date	<12,000yBP
Radiocarbon Dating	Looks at the ratio of Carbon-14 to Carbon-12 to provide a date	50,000yBP-AD 1950
Radiopotassium Dating	Looks at the ratio of Potassium-40 to Argon-40, since potassium decays to argon, to provide a date. Only works for igneous rock	>200,000yBP

Argon-Argon Dating	Looks at ratio of Argon-39 to Argon-40	5 millionyBP- 100,000yBP
Fission Track Dating	Based on the radioactive decay of Uranium-238, which leaves lines in rock crystal. More lines = older	<3mya
Amino Acid Dating	Used only with organic material and looks at the ratio of L-isomers to D-isomers (racemization), highly dependent on environmental temperature	<3mya
Paleomagnetic Dating	Dating based on the record of earth's poles reverse, which leaves traces through the orientation of metals in sedimentary rock	<5mya
Electron Spin Resonance Dating	Bones and teeth absorb uranium once buried, this method measures the concentration of that uranium – more uranium = older specimen	1mya-3kya
Thermoluminescence Dating	Heat something up, the amount of light released reveals the amount of time since the material was first heated. More light = more time elapsed since last heated	<800,000yBP