THE AGE OF THE EARTH

The present estimate of the age of the earth at 4.5 billion years is an inference from the rate at which radioactive uranium decays to stable lead (U-238 → Pb-206 with a half-life of 4.46 billion years); there are other radiometric dating methods, but they are invariably calibrated to the uranium-lead chain. But this dating method incorporates a number of assumptions that have not been validated, and some of which are indeed dubious: 1) half-lives of radionuclides have remained constant over billions of years; 2) minerals found today that contain both uranium and lead originally contained no lead at all, or at least no Pb-206; 3) the mineral deposit remained a closed system for billions of years (i.e., no uranium or lead or any of the daughter products in the chain from U to Pb either migrated away from or into the mineral being dated). Despite the well-known problems with radiometric dating methods, they are accepted by the modern scientific community because they produce great ages for the earth. However, radioactive decay is only one of many processes active today that can be used to "date" the age of the earth and/or universe, the vast majority of which give much lower values. Consider a sample of these in the table below.

PROCESS (WITH UNIFORMITARIAN PRESUMPTION)	AGE (YRS)
Decay of C-14 in pre-Cambrian wood	< 4,000
Formation of river deltas	< 5,000
Diffusion of He from pre-Cambrian zircons	< 8,000
Diffusion of Ar from pre-Cambrian feldspar	< 9,000
Decay of Earth's magnetic field	< 10,000
Decay of short period comets	< 10,000
Influx of C-14 into Earth's system	< 10,000
Efflux of subterranean oil from traps by pressure	< 10,000
Influx of certain minerals into the oceans	< 100,000
Efflux of He-4 into Earth's atmosphere	< 175,000
Accumulation of dust on the moon	< 200,000
Instability of Saturn's rings	< 1,000,000
Decay of long period comets	< 1,000,000
Dispersion of galactic arms	< 10,000,000
Escape of methane from Titan	< 20,000,000
Cooling of earth by heat efflux	< 24,000,000
Influx of sediment from rivers to oceans	< 30,000,000
Submarine seepage of oil into oceans	< 50,000,000
Decay of natural plutonium	< 80,000,000
Deceleration of earth by tidal friction	< 500,000,000

Clearly, many of the earth ages indicated in the table are much larger than the approximate 6,000 year age inferred from the genealogies in Genesis 5 and 11. The point is, however, that a whole range of values are generated for the age of the earth when presently active rate processes are used, most of which produce dates much less than the "billions of years" commonly accepted. Why is the method that produces the greatest age advocated by 'modern science'? It is not because it is the 'best' method.

SOURCES:

Henry M. Morris, The Biblical Basis for Modern Science, Baker Book House, Grand Rapids, MI, 1984, Appendix 6.

Henry M. Morris, Scientific Creationism, Master Books, El Cajon, CA, 1985, Chapter VI.

Larry Vardiman, "Both Argon and Helium Diffusion Rates Indicate a Young Earth", **Acts & Facts**, Vol. 40 (8), 2011, pp. 12-13.