$\star 0: 16$ "The age of the earth is about 4.54 billion years old." Is this common statement accurate, precise, both, or neither?
Ł 0:52 Micrometer illustration of accuracy vs. precision
Ł 2:48 Radioactive Decay Process 1. Parent Element 2. Daughter Element 3. Half-life 4. Parent/Daughter Ratio
夫 4:29 Assumptions in Radiometric Dating 1. No daughter element at the start 2. The Rock has been a closed system 3. Constant rate
of decay (half-life)

* 5:03 Common Radiometric Decay Chains Used for Dating Rocks
* 5:46 Calibrating the Dating Methods (See if it gets the right answer for a date you know)
* 6:52 Results Compared with Known Dates
* 8:25 Isochron Dating Method
* 9:08 Assumptions in Isochron Dating
* 10:37 Isochron Dating Examples
* 12:49 Potential Changes in Decay Rate
* 13:58 Radiocarbon Dating
$\star$ 14:15 How Carbon-14 is Produced
$\star$ 15:22 C-14 Dating Method
$\star$ 16:45 Basic Assumption of C-14 to C-12 Ratio
$\star$ 17:40 At about 90,000 years no C-14 should be detectable.
$\star$ 17:58 C-14 Levels in Coal
^ 19:07 Dinosaur Bones with C-14
$\star$ 19:44 C-14 in Diamonds
* 20:15 Australian Crinum Mine
Ł 21:21 Biblical Assumptions on C-14/C-12 Ratio
$\star$ 24:01 A Telling Admission - Dates that don't fit are discarded (confirmation bias and cherry-picking)
$\star$ 24:50 Radiogenic Helium Dating - Zircon crystals
$\star$ 26:32 Fenton Hill, NM Bore Hole
$\star$ 27:28 Helium Diffusion Calculations
$\star$ 28:15 Prediction made on the basis of biblical creation assumptions proves correct
* 29:01 Radiohalos
$\star$ 31:44 Argon Diffusion Dating of Feldspar
$\star$ 34:22 Summary: Radiometric Dating Depends on Assumptions that Have Been Shown to be Incorrect.
Dr. Mason seems to accept plate tectonics. For a critique of plate tectonics from a creationist veiw, see: https://youtu.be/4hhE6tzJR c? $\mathrm{t}=1 \mathrm{~h} 11 \mathrm{~m} 18 \mathrm{~s}$


