



God's Grand Design

Exploring Origins in Science and Scripture

Part 6

**What about
radiometric and
carbon-14
dating?**

Get on the class email list:

josh@trc.life

God's Grand Design class

(these events are subject to change, check here for the latest)

		Topic	Passage	Teaching Notes	Powerpoint	Audio Recording
10/4/23	Class 1	Why does this topic matter?	Gen. 1:1, Jonah 1-2	GGD Class 1 Notes.pdf	GGD Class 1 Slides.pdf	GGD Class 1 Recording.m4a
10/11/23	No Meeting					
10/18/23	Class 2	Where did life come from?	Gen. 1:1-2:3	GGD Class 2 Notes.pdf	GGD Class 2 Slides.pdf	GGD Class 2 Recording.m4a
10/25/23	No Meeting					
11/1/23	Class 3	Is the earth a miracle?	Gen. 1:1-2:3	GGD Class 3 Notes.pdf	GGD Class 3 Slides.pdf	GGD Class 3 Recording.m4a
11/8/23	No Meeting					
11/15/23	Class 4	Did humans evolve from primates?	Gen. 2:4-25	GGD Class 4 Notes.pdf	GGD Class 4 Slides.pdf	GGD Class 4 Recording.m4a
11/22/23	No Meeting (Thanksgiving)					
11/29/23	Class 5	How old is the earth?	Gen. 5 & 11	GGD Class 5 Notes.pdf	GGD Class 5 Slides.pdf	GGD Class 5 Recording.m4a
12/6/23	No Meeting					
12/13/23	Class 6	What about radiometric & carbon-14 dating?	Gen. 5 & 11			
12/20/23	No Meeting					
12/27/23	No Meeting (Christmas)					
1/3/24	No Meeting (New Year's)					
1/10/24	No Meeting					
1/17/24	Class 7					
1/24/24	No Meeting					
1/31/24	Class 8					
2/7/24	No Meeting					
2/14/24	Class 9					
2/21/24	No Meeting					
2/28/24	Class 10					
3/6/24	No Meeting					
3/13/24	Class 11					
3/20/24	No Meeting					
3/27/24	Class 12					

Possible questions to investigate:

~~What is science? What can science teach us about origins?~~

~~How old is the earth? What about radiocarbon/radiometric dating?~~

~~Did people evolve from primates? What about shared DNA?~~

Who did Adam and Eve's children marry?

~~What does Genesis 1 actually teach?~~

Did the flood happen? Do we see any evidence of it?

How did the animals spread over the earth after the flood?

How does plate tectonics fit into all of this?

What about the ice age?

Where are the human fossils?

~~Aren't there examples of evolution happening around us?~~

~~What does the Bible teach about astronomy? Does distant starlight present a problem?~~

How did we get the different races and languages?

How did Noah fit all the animals on the ark?

How do we get fossils? What happened to the dinosaurs?

How was the Grand Canyon formed? How do we explain the geological column?

Did Adam have a belly button?

Two Theories of Origins

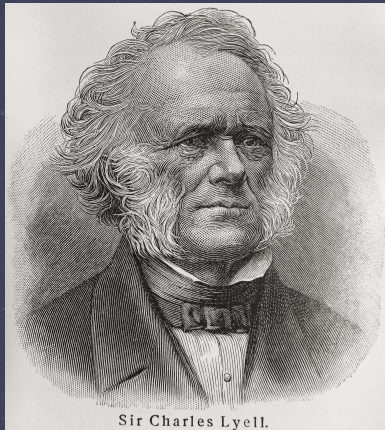
**View #1 – God created the heavens and the earth.
(in six days, thousands of years ago)**

**View #2 – The heavens and earth evolved without
God. (millions and billions of years ago)**

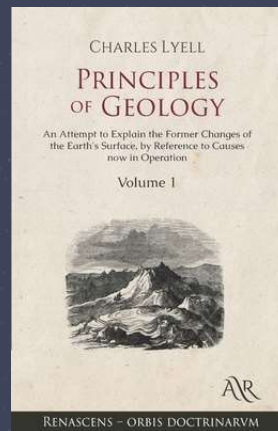
The Big Bang occurred	13,700,000,000 years ago
The Earth formed	4,500,000,000 years ago
The first life arose on the earth	3,700,000,000 years ago
The first early human/hominids appeared	7,000,000 years ago
The first Homo Sapiens appeared	250,000 years ago

I am sure you may get into Quarterly Review what will free the science [of geology] from Moses. If we don't irritate, which I fear that we may, we shall carry all with us.

Charles Lyell



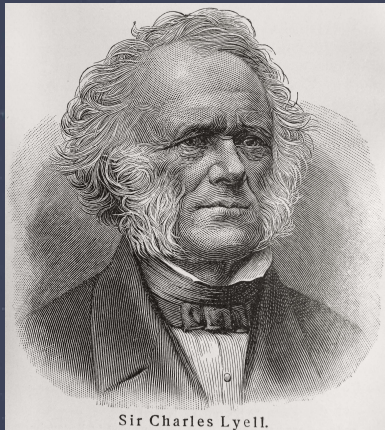
Sir Charles Lyell.



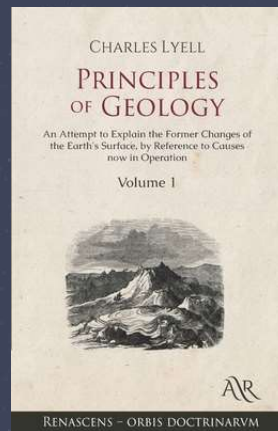
1830s

The Earth is a testament to millions of years of slow, relentless change.

Charles Lyell



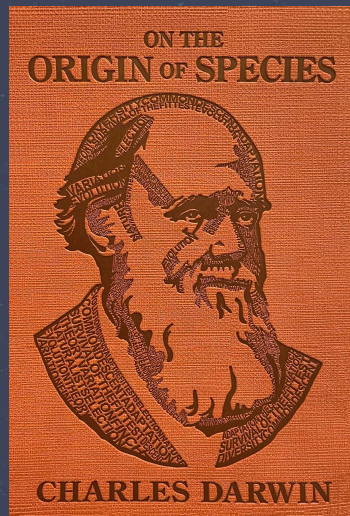
Sir Charles Lyell.



1830s

Spoke of evidence of 'incomprehensibly vast'
periods of geological time.

Charles Darwin



1859

Charles Lyell - 1830s

Charles Darwin - 1850s

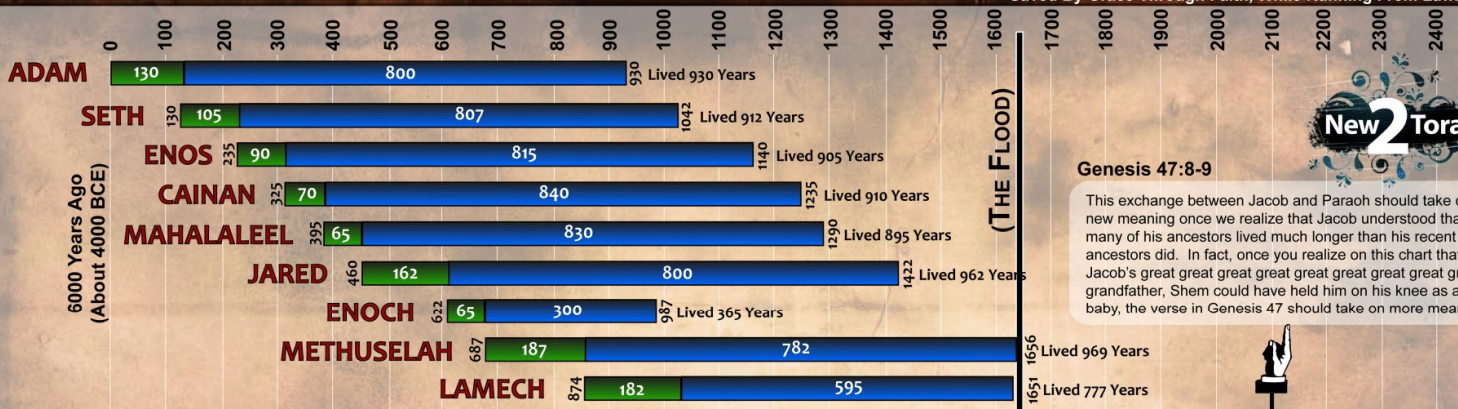
Radiometric Dating - 1905

Carbon 14 Dating - 1946

**The “old age” conclusions
came before the science.**

The Big Bang occurred	13,700,000,000 years ago
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Saved By Grace Through Faith, While Running From Lawlessness



AGE CHART ADAM TO JOSEPH

This chart can be used to help in daily/weekly Torah study efforts when you see the years and dates scriptures give when laid out side by side. It is interesting to note that the first 2158 years of human history are overlapped by the lives of three men (Adam, Lamech and Shem). It is also interesting to note that Abraham could have personally known Noah and that Jacob was a contemporary with Shem.

WHAT IS THE TORAH?

The Torah is the first five books of what most Christians call the Bible. Genesis, Exodus, Leviticus, Numbers, Deuteronomy. The Torah, commonly mistranslated in the Bible as "Law" is simply the "Instructions" that the Father has given for his people to be kept "forever for all generations". Other common misconceptions are that Jesus (Yeshua) came to do away with the Torah (law) and free us from the bondage contained within.

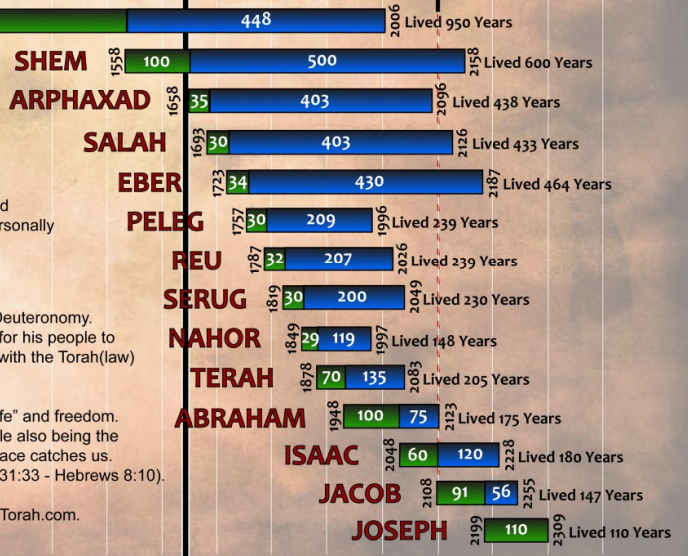
Actually, all throughout the Old Testament we see the authors refer to the Torah as "the way", "the truth", "the life" and freedom. Jesus (Yeshua) in fact was the Messiah who came to do away with our transgressions against God's Torah while also being the perfect example showing us how to follow and keep God's Torah (Matthew 5:17-19). When we fall short, his grace catches us. Yes, a new covenant is in place but for a true believer, the Torah (law) is to be written on our hearts. (Jeremiah 31:33 - Hebrews 8:10).

For a FREE printable digital download of this chart and other amazing Torah teachings, visit us online at New2Torah.com. Search for "Age Chart" on the main page search bar on our website.

(THE FLOOD)

Genesis 47:8-9

This exchange between Jacob and Paroah should take on new meaning once we realize that Jacob understood that many of his ancestors lived much longer than his recent ancestors did. In fact, once you realize on this chart that Jacob's great great great great great great great grandfather, Shem could have held him on his knee as a baby, the verse in Genesis 47 should take on more meaning.



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Creation/Adam to Abraham	~ 2,000 years
Abraham to Jesus	~ 2,000 years
Jesus to You	~ 2,000 years
Total	~ 6,000 years

	Evolution Timeline	Creation Timeline
The Big Bang occurred / Universe Created	13,700,000,000 years ago	6,000 years ago
The Earth formed / Earth created	4,500,000,000 years ago	6,000 years ago
The first life arose on the earth / Life created	3,700,000,000 years ago	6,000 years ago
The first early human/hominids appeared / People Created	7,000,000 years ago	6,000 years ago
The first Homo Sapiens appeared / People created	250,000 years ago	6,000 years ago





5 inches deep at 9:50 a.m.

6 inches deep at 10:00 a.m.

10 minutes to add 1 inch.

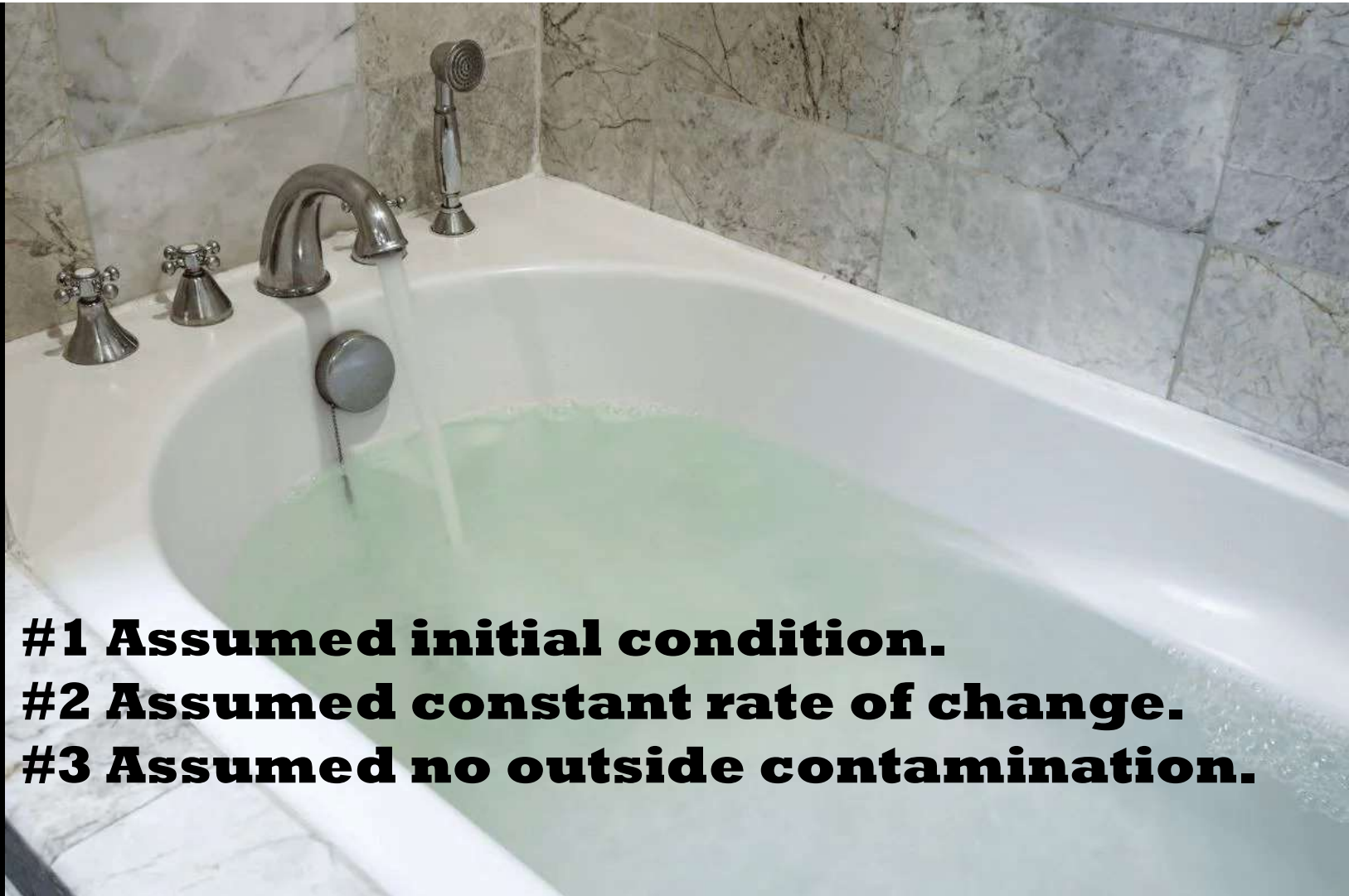
When did the tub start filling?



#1 Assumed initial condition.



**#1 Assumed initial condition.
#2 Assumed constant rate of change.**



#1 Assumed initial condition.

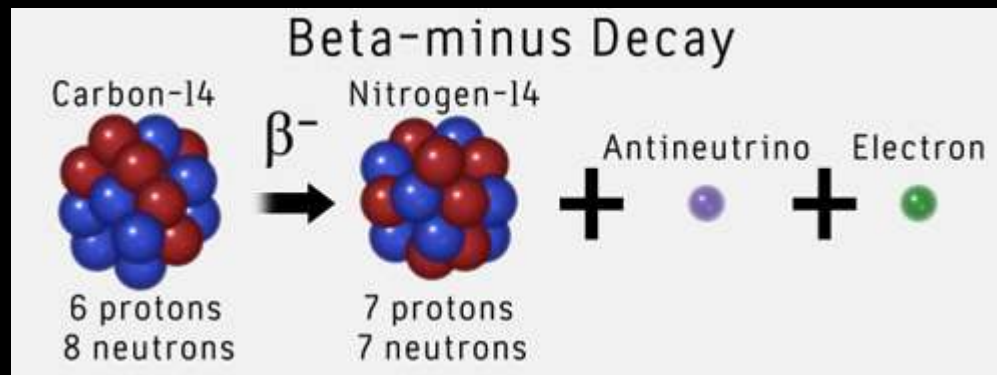
#2 Assumed constant rate of change.

#3 Assumed no outside contamination.

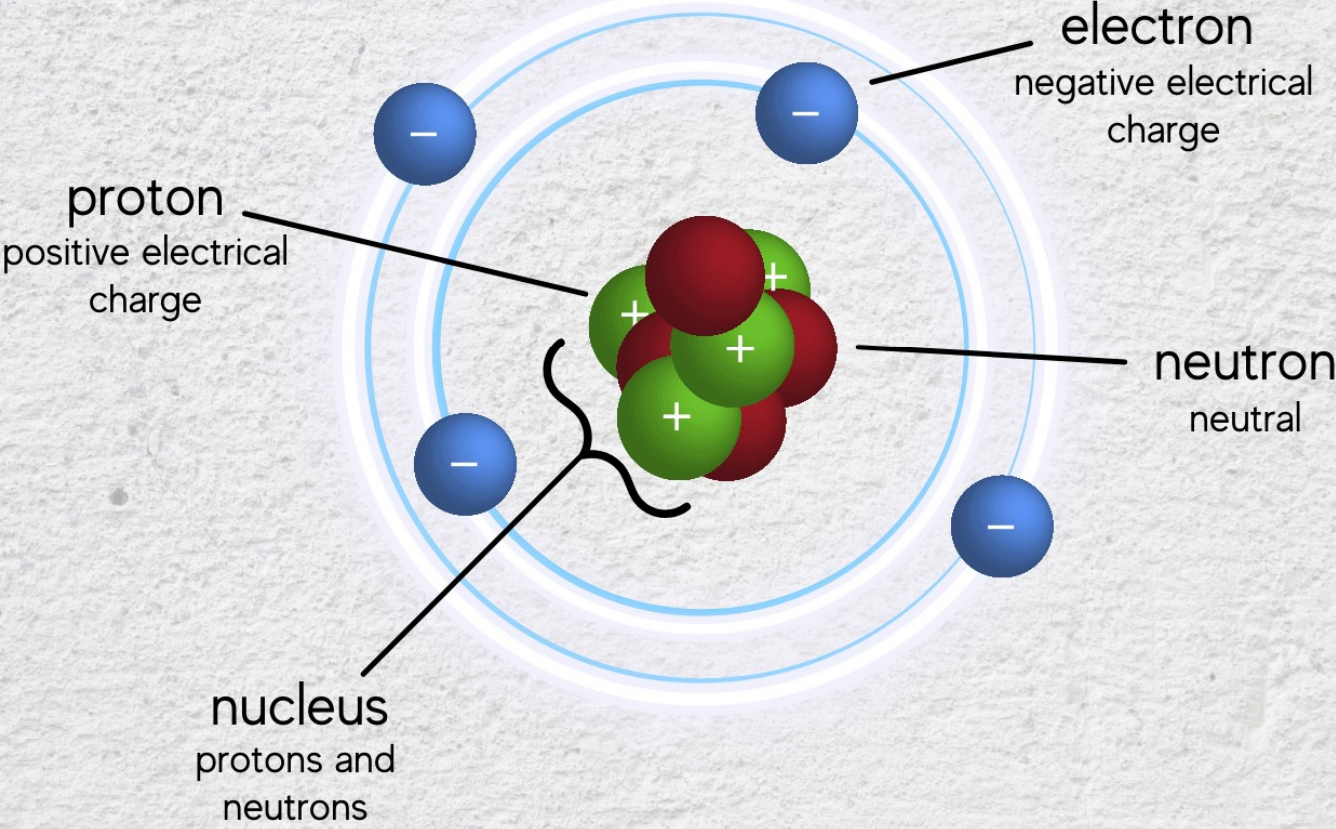
#1 Assumed initial condition.

#2 Assumed constant rate of change.

#3 Assumed no outside contamination.



Parts of an Atom



Periodic Table of Elements

Cite Download

TABLE LIST W/PROPERTIES GAME

1																		18																	
1 1.0080 H Hydrogen Normal																	2 4.00260 He Helium Noble Gas																		
3 7.0 Li Lithium Alkali Metal	4 9.012183 Be Beryllium Alkaline Earth Metal											5 10.81 B Boron Metalloid	6 12.011 C Carbon Normal	7 14.007 N Nitrogen Normal	8 15.999 O Oxygen Normal	9 18.99840316 F Fluorine Normal	10 20.180 Ne Neon Noble Gas																		
11 22.98976928 Na Sodium Alkali Metal	12 24.305 Mg Magnesium Alkaline Earth Metal											13 26.981538 Al Aluminum Post-Transition Metal	14 28.086 Si Silicon Metalloid	15 30.97376200 P Phosphorus Normal	16 32.07 S Sulfur Normal	17 35.45 Cl Chlorine Halogen	18 39.9 Ar Argon Noble Gas																		
19 39.0983 K Potassium Alkali Metal	20 40.08 Ca Calcium Alkaline Earth Metal	21 44.95591 Sc Scandium Transition Metal	22 47.867 Ti Titanium Transition Metal	23 50.9415 V Vanadium Transition Metal	24 51.996 Cr Chromium Transition Metal	25 54.93804 Mn Manganese Transition Metal	26 55.84 Fe Iron Transition Metal	27 58.93319 Co Cobalt Transition Metal	28 58.933 Ni Nickel Transition Metal	29 63.55 Cu Copper Transition Metal	30 65.4 Zn Zinc Transition Metal	31 69.723 Ga Gallium Post-Transition Metal	32 72.63 Ge Germanium Metalloid	33 74.92159 As Arsenic Metalloid	34 78.97 Se Selenium Normal	35 79.90 Br Bromine Halogen	36 83.80 Kr Krypton Noble Gas																		
37 85.468 Rb Rubidium Alkali Metal	38 87.62 Sr Strontium Alkaline Earth Metal	39 88.90584 Y Yttrium Transition Metal	40 91.22 Zr Zirconium Transition Metal	41 92.90637 Nb Niobium Transition Metal	42 95.95 Mo Molybdenum Transition Metal	43 96.90636 Tc Technetium Transition Metal	44 101.1 Ru Ruthenium Transition Metal	45 102.9055 Rh Rhodium Transition Metal	46 106.42 Pd Palladium Transition Metal	47 107.868 Ag Silver Transition Metal	48 112.41 Cd Cadmium Transition Metal	49 114.818 In Indium Post-Transition Metal	50 118.71 Sn Tin Post-Transition Metal	51 121.760 Sb Antimony Metalloid	52 127.6 Te Tellurium Metalloid	53 126.9045 I Iodine Halogen	54 131.29 Xe Xenon Noble Gas																		
55 132.9054520 Cs Cesium Alkali Metal	56 137.33 Ba Barium Alkaline Earth Metal											72 178.49 Hf Hafnium Transition Metal	73 180.9479 Ta Tantalum Transition Metal	74 183.84 W Tungsten Transition Metal	75 186.207 Re Rhenium Transition Metal	76 190.2 Os Osmium Transition Metal	77 192.22 Ir Iridium Transition Metal	78 195.08 Pt Platinum Transition Metal	79 196.96657 Au Gold Transition Metal	80 200.59 Hg Mercury Transition Metal	81 204.383 Tl Thallium Post-Transition Metal	82 207 Pb Lead Post-Transition Metal	83 208.98040 Bi Bismuth Post-Transition Metal	84 208.98043 Po Polonium Metalloid	85 208.98715 At Astatine Halogen	86 222.01758 Rn Radon Noble Gas									
87 223.01973 Fr Francium Alkali Metal	88 226.02541 Ra Radium Alkaline Earth Metal											104 267.122 Rf Rutherfordium Transition Metal	105 268.126 Db Dubnium Transition Metal	106 269.128 Sg Seaborgium Transition Metal	107 270.133 Bh Bohrium Transition Metal	108 269.1336 Hs Hassium Transition Metal	109 277.154 Mt Meitnerium Transition Metal	110 282.166 Ds Darmstadtium Transition Metal	111 282.169 Rg Roentgenium Transition Metal	112 286.179 Cn Copernicium Transition Metal	113 286.182 Nh Nihonium Post-Transition Metal	114 290.192 Fl Flerovium Post-Transition Metal	115 290.196 Mc Moscovium Post-Transition Metal	116 293.205 Lv Livermorium Post-Transition Metal	117 294.211 Ts Tennessine Halogen	118 295.216 Og Oganesson Noble Gas									
		57 138.9055 La Lanthanum Lanthanide	58 140.116 Ce Cerium Lanthanide	59 140.90766 Pr Praseodymium Lanthanide	60 144.24 Nd Neodymium Lanthanide	61 144.91276 Pm Promethium Lanthanide	62 150.4 Sm Samarium Lanthanide	63 151.964 Eu Europium Lanthanide	64 157.2 Gd Gadolinium Lanthanide	65 158.92535 Tb Terbium Lanthanide	66 162.50 Dy Dysprosium Lanthanide	67 164.93033 Ho Holmium Lanthanide	68 167.26 Er Erbium Lanthanide	69 168.93422 Tm Thulium Lanthanide	70 173.05 Yb Ytterbium Lanthanide	71 174.9668 Lu Lutetium Lanthanide																			
		89 227.02775 Ac Actinium Actinide	90 232.038 Th Thorium Actinide	91 231.03688 Pa Protactinium Actinide	92 238.02891 U Uranium Actinide	93 237.048172 Np Neptunium Actinide	94 244.06422 Pu Plutonium Actinide	95 242.061380 Am Americium Actinide	96 247.07035 Cm Curium Actinide	97 247.07031 Bk Berkelium Actinide	98 251.07659 Cf Californium Actinide	99 252.0830 Es Einsteinium Actinide	100 257.09511 Fm Fermium Actinide	101 258.10389 Md Mendelevium Actinide	102 259.10100 No Nobelium Actinide	103 259.10389 Lr Lawrencium Actinide																			

DISPLAY PROPERTY/TREND

Chemical Group Block

Atomic Number 17 35.45 Atomic Mass, u

Name Cl Chlorine Chemical Group Block

Plot Atomic Mass

Periodic Table of Elements

Cite Download

TABLE LIST W/PROPERTIES GAME

The image shows a standard periodic table of elements. The element Chlorine (Cl) is highlighted in yellow. A tooltip for Chlorine is open, displaying its atomic number (17) and atomic mass (35.45). The tooltip also shows the element's name (Chlorine), symbol (Cl), and chemical group block (Halogen). A 'Plot Atomic Mass' button is visible below the tooltip. A blue overlay box contains the definition of an element.

Elements:
Any substance that cannot be broken down into simpler substances by ordinary chemical processes.

1																	18					
1	2											10	11	12	13	14	15	16	17	18		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18					
H Hydrogen Nonmetal	He Helium Noble Gas	Li Lithium Alkali Metal	Be Beryllium Alkali Earth Metal	B Boron Metalloid	C Carbon Nonmetal	N Nitrogen Nonmetal	O Oxygen Nonmetal	F Fluorine Halogen	Ne Neon Noble Gas	Na Sodium Alkali Metal	Mg Magnesium Alkali Earth Metal	Al Aluminum Post-Transition Metal	Si Silicon Metalloid	P Phosphorus Nonmetal	S Sulfur Nonmetal	Cl Chlorine Halogen	Ar Argon Noble Gas					
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36					
K Potassium Alkali Metal	Ca Calcium Alkali Earth Metal	Sc Scandium Transition Metal	Ti Titanium Transition Metal	V Vanadium Transition Metal	Cr Chromium Transition Metal	Mn Manganese Transition Metal	Fe Iron Transition Metal	Co Cobalt Transition Metal	Ni Nickel Transition Metal	Cu Copper Transition Metal	Zn Zinc Transition Metal	Ga Gallium Post-Transition Metal	Ge Germanium Metalloid	As Arsenic Metalloid	Se Selenium Nonmetal	Br Bromine Halogen	Kr Krypton Noble Gas					
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54					
Rb Rubidium Alkali Metal	Sr Strontium Alkali Earth Metal	Y Yttrium Transition Metal	Zr Zirconium Transition Metal	Nb Niobium Transition Metal	Mo Molybdenum Transition Metal	Tc Technetium Transition Metal	Ru Ruthenium Transition Metal	Rh Rhodium Transition Metal	Pd Palladium Transition Metal	Ag Silver Transition Metal	Cd Cadmium Transition Metal	In Indium Post-Transition Metal	Sn Tin Post-Transition Metal	Sb Antimony Metalloid	Te Tellurium Metalloid	I Iodine Halogen	Xe Xenon Noble Gas					
55	56											81	82	83	84	85	86	87	88	89	90	
Cs Cesium Alkali Metal	Ba Barium Alkali Earth Metal	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Lanthanum Series	Rn Radon Noble Gas	
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Periodic Table of Elements

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19 K Potassium Alkali Metal	20 Ca Calcium Alkaline Earth Metal	21 Sc Scandium	22 Ti Titanium	23 V Vanadium	24 Cr Chromium	25 Mn Manganese	26 Fe Iron	27 Co Cobalt	28 Ni Nickel	29 Cu Copper	30 Zn Zinc	31 Ga Gallium	32 Ge Germanium	33 As Arsenic	34 Se Selenium	35 Br Bromine	36 Kr Krypton Noble Gas																														
37 Rb Rubidium Alkali Metal																	38 Sr Strontium Alkaline Earth Metal	39 Y Yttrium	40 Zr Zirconium	41 Nb Niobium	42 Mo Molybdenum	43 Tc Technetium	44 Ru Ruthenium	45 Rh Rhodium	46 Pd Palladium	47 Ag Silver	48 Cd Cadmium	49 In Indium	50 Sn Tin	51 Sb Antimony	52 Te Tellurium	53 I Iodine	54 Xe Xenon Noble Gas														
55 Cs Cesium Alkali Metal																	56 Ba Barium Alkaline Earth Metal	57 La Lanthanum	58 Ce Cerium	59 Pr Praseodymium	60 Nd Neodymium	61 Pm Promethium	62 Sm Samarium	63 Eu Europium	64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium	71 Lu Lutetium	72 Hf Hafnium	73 Ta Tantalum	74 W Tungsten	75 Re Rhenium	76 Os Osmium	77 Ir Iridium	78 Pt Platinum	79 Au Gold	80 Hg Mercury	81 Tl Thallium	82 Pb Lead	83 Bi Bismuth	84 Po Polonium	85 At Astatine	86 Rn Radon Noble Gas
87 Fr Francium Alkali Metal																	88 Ra Radium Alkaline Earth Metal	89 Ac Actinium	90 Th Thorium	91 Pa Protactinium	92 U Uranium	93 Np Neptunium	94 Pu Plutonium	95 Am Americium	96 Cm Curium	97 Bk Berkelium	98 Cf Californium	99 Es Einsteinium	100 Fm Fermium	101 Md Mendelevium	102 No Nobelium	103 Lr Lawrencium	104 Rf Rutherfordium	105 Db Dubnium	106 Sg Seaborgium	107 Bh Bohrium	108 Hs Hassium	109 Mt Meitnerium	110 Ds Darmstadtium	111 Rg Roentgenium	112 Cn Copernicium	113 Nh Nihonium	114 Fl Flerovium	115 Mc Moscovium	116 Lv Livermorium	117 Ts Tennessine	118 Og Oganesson Noble Gas

Atomic Number:
The number of protons in the nucleus of an atom, which determines the chemical properties of an element and its place in the periodic table.

Periodic Table of Elements

Cite Download

TABLE LIST W/PROPERTIES GAME

1																		18																	
1	DISPLAY PROPERTY/TREND Chemical Group Block																2																		
1 H Hydrogen Normal																	2 He Helium Noble Gas																		
3 Li Lithium Alkali Metal	4 Be Beryllium Alkaline Earth Metal	Atomic Number 17 35.45 Atomic Mass, u														19 Ne Neon Noble Gas																			
		Name																10 Ne Neon Noble Gas																	
11 Na Sodium Alkali Metal	12 Mg Magnesium Alkaline Earth Metal	Chemical Group Block																18 Ar Argon Noble Gas																	
		Plot Atomic Mass																18 Ar Argon Noble Gas																	
19 K Potassium Alkali Metal	20 Ca Calcium Alkaline Earth Metal	21 Sc Scandium Transition Metal	22 Ti Titanium Transition Metal	23 V Vanadium Transition Metal	24 Cr Chromium Transition Metal	25 Mn Manganese Transition Metal	26 Fe Iron Transition Metal	27 Co Cobalt Transition Metal	28 Ni Nickel Transition Metal	29 Cu Copper Transition Metal	30 Zn Zinc Transition Metal	31 Ga Gallium Post-Transition Metal	32 Ge Germanium Metalloid	33 As Arsenic Metalloid	34 Se Selenium Nonmetal	35 Br Bromine Halogen	36 Kr Krypton Noble Gas																		
37 Rb Rubidium Alkali Metal	38 Sr Strontium Alkaline Earth Metal	39 Y Yttrium Transition Metal	40 Zr Zirconium Transition Metal	41 Nb Niobium Transition Metal	42 Mo Molybdenum Transition Metal	43 Tc Technetium Transition Metal	44 Ru Ruthenium Transition Metal	45 Rh Rhodium Transition Metal	46 Pd Palladium Transition Metal	47 Ag Silver Transition Metal	48 Cd Cadmium Transition Metal	49 In Indium Post-Transition Metal	50 Sn Tin Post-Transition Metal	51 Sb Antimony Metalloid	52 Te Tellurium Metalloid	53 I Iodine Halogen	54 Xe Xenon Noble Gas																		
55 Cs Cesium Alkali Metal	56 Ba Barium Alkaline Earth Metal																	86 Rn Radon Noble Gas																	
87 Fr Francium Alkali Metal	88 Ra Radium Alkaline Earth Metal	72 Hf Hafnium Transition Metal	73 Ta Tantalum Transition Metal	74 W Tungsten Transition Metal	75 Re Rhenium Transition Metal	76 Os Osmium Transition Metal	77 Ir Iridium Transition Metal	78 Pt Platinum Transition Metal	79 Au Gold Transition Metal	80 Hg Mercury Transition Metal	81 Tl Thallium Post-Transition Metal	82 Pb Lead Post-Transition Metal	83 Bi Bismuth Post-Transition Metal	84 Po Polonium Metalloid	85 At Astatine Halogen	86 Rn Radon Noble Gas																			
		104 Rf Rutherfordium Transition Metal	105 Db Dubnium Transition Metal	106 Sg Seaborgium Transition Metal	107 Bh Bohrium Transition Metal	108 Hs Hassium Transition Metal	109 Mt Meitnerium Transition Metal	110 Ds Darmstadtium Transition Metal	111 Rg Roentgenium Transition Metal	112 Cn Copernicium Transition Metal	113 Nh Nihonium Post-Transition Metal	114 Fl Flerovium Post-Transition Metal	115 Mc Moscovium Post-Transition Metal	116 Lv Livermorium Post-Transition Metal	117 Ts Tennessine Halogen	118 Og Oganesson Noble Gas																			
		57 La Lanthanum Lanthanide	58 Ce Cerium Lanthanide	59 Pr Praseodymium Lanthanide	60 Nd Neodymium Lanthanide	61 Pm Promethium Lanthanide	62 Sm Samarium Lanthanide	63 Eu Europium Lanthanide	64 Gd Gadolinium Lanthanide	65 Tb Terbium Lanthanide	66 Dy Dysprosium Lanthanide	67 Ho Holmium Lanthanide	68 Er Erbium Lanthanide	69 Tm Thulium Lanthanide	70 Yb Ytterbium Lanthanide	71 Lu Lutetium Lanthanide																			
		89 Ac Actinium Actinide	90 Th Thorium Actinide	91 Pa Protactinium Actinide	92 U Uranium Actinide	93 Np Neptunium Actinide	94 Pu Plutonium Actinide	95 Am Americium Actinide	96 Cm Curium Actinide	97 Bk Berkelium Actinide	98 Cf Californium Actinide	99 Es Einsteinium Actinide	100 Fm Fermium Actinide	101 Md Mendelevium Actinide	102 No Nobelium Actinide	103 Lr Lawrencium Actinide																			

Periodic Table of Elements

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TABLE LIST W/PROPERTIES GAME

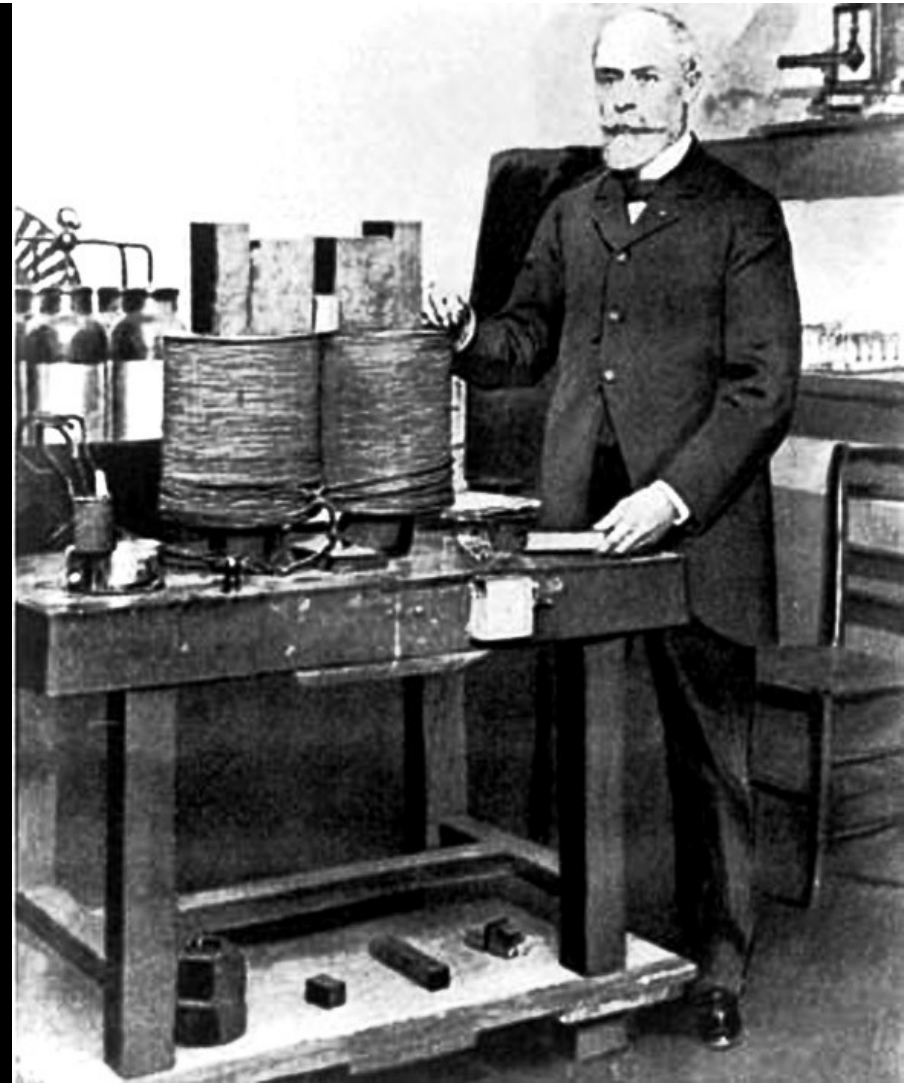
1	DISPLAY PROPERTY/TREND																18																		
1	Chemical Group Block																2																		
1	1.0080															4.00260																			
H																	He																		
Hydrogen																	Helium																		
Normal																	Noble Gas																		
3	7.0	4	9.012183	Atomic Number 17 35.45 Atomic Mass, u												10	20.180																		
Li	Be															Ne																			
Lithium	Beryllium															Neon																			
Alkali Metal	Alkaline Earth Metal															Noble Gas																			
11	22.98976928	12	24.305	Name Cl Chlorine Halogen Chemical Group Block												18	39.9																		
Na	Mg															Ar																			
Sodium	Magnesium															Argon																			
Alkali Metal	Alkaline Earth Metal															Noble Gas																			
Plot Atomic Mass																																			
19	39.0983	20	40.08	21	44.95591	22	47.867	23	50.9415	24	51.996	25	54.93804	26	55.84	27	58.93219	28	58.693	29	63.55	30	65.4	31	69.723	32	72.63	33	74.92159	34	78.97	35	79.90	36	83.80
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr																		
Potassium	Calcium	Scandium	Titanium	Vanadium	Chromium	Manganese	Iron	Cobalt	Nickel	Copper	Zinc	Gallium	Germanium	Arsenic	Selenium	Bromine	Krypton																		
Alkali Metal	Alkaline Earth Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Post-Transition Metal	Metalloid	Metalloid	Nonmetal	Halogen	Noble Gas																		
37	85.468	38	87.62	39	88.90584	40	91.22	41	92.90637	42	95.95	43	96.90636	44	101.1	45	102.9055	46	106.42	47	107.868	48	112.41	49	114.818	50	118.71	51	121.760	52	127.6	53	126.9045	54	131.29
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe																		
Rubidium	Strontium	Yttrium	Zirconium	Niobium	Molybdenum	Technetium	Ruthenium	Rhodium	Palladium	Silver	Cadmium	Indium	Tin	Antimony	Tellurium	Iodine	Xenon																		
Alkali Metal	Alkaline Earth Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Post-Transition Metal	Post-Transition Metal	Metalloid	Metalloid	Halogen	Noble Gas																		
55	132.9054520	56	137.33	72	178.49	73	180.9479	74	183.84	75	186.207	76	190.2	77	192.22	78	195.08	79	196.96657	80	200.59	81	204.383	82	207	83	208.98040	84	208.98043	85	208.98715	86	222.01758		
Cs	Ba	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn																			
Cesium	Barium	Hafnium	Tantalum	Tungsten	Rhenium	Osmium	Iridium	Platinum	Gold	Mercury	Thallium	Lead	Bismuth	Polonium	Astatine	Radon																			
Alkali Metal	Alkaline Earth Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Transition Metal	Post-Transition Metal	Post-Transition Metal	Post-Transition Metal	Post-Transition Metal	Halogen	Noble Gas																			
87	223															295.216																			
Fr																	Og																		
Francium																	Oganesson																		
Alkali Metal																	Noble Gas																		
																174.9668																			
																Lu																			
																Lutetium																			
																175																			
																Lr																			
																Lanthanum																			
																265.120																			
																Ac																			
																Actinium																			
																Actinide																			

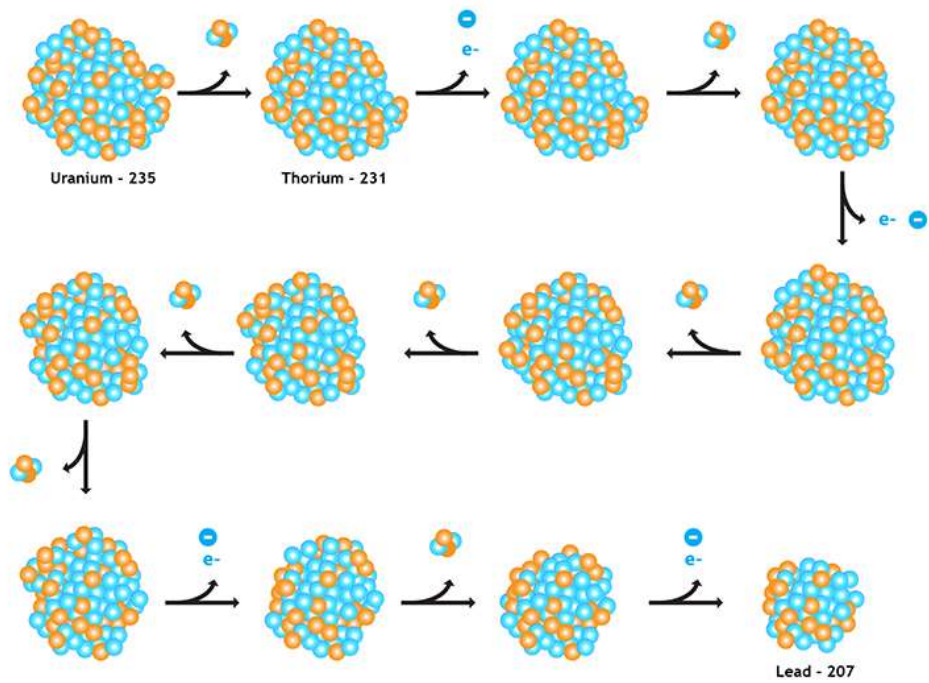
Isotope:
Variations of a chemical element with specific properties.

Radiometric Dating:

a method of dating geological or archeological specimens by determining the relative proportions of particular radioactive isotopes present in a sample.

Discovery of
radioactivity in
uranium by French
physicist Henri
Becquerel in 1896



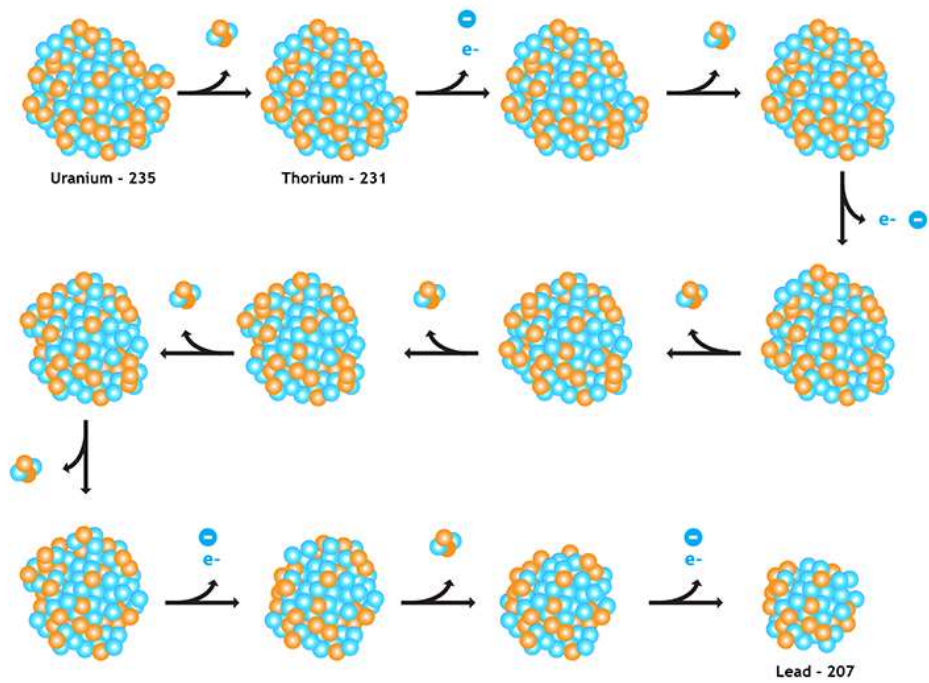


Periodic Table of Elements

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TABLE LIST W/PROPERTIES GAME

1																		18																	
1	DISPLAY PROPERTY/TREND Chemical Group Block																2																		
1 H Hydrogen Normal																	2 He Helium Noble Gas																		
3 Li Lithium Alkali Metal	4 Be Beryllium Alkaline Earth Metal	Atomic Number 17 35.45 Atomic Mass, u														19 Ne Neon Noble Gas																			
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		Chemical Group Block																18 Ar Argon Noble Gas																	
		Plot Atomic Mass																18 Ar Argon Noble Gas																	
11 Na Sodium Alkali Metal	12 Mg Magnesium Alkaline Earth Metal	13 Al Aluminum Post-Transition Metal	14 Si Silicon Metalloid	15 P Phosphorus Nonmetal	16 S Sulfur Nonmetal	17 Cl Chlorine Halogen	18 Ar Argon Noble Gas	19 K Potassium Alkali Metal	20 Ca Calcium Alkaline Earth Metal	21 Sc Scandium Transition Metal	22 Ti Titanium Transition Metal	23 V Vanadium Transition Metal	24 Cr Chromium Transition Metal	25 Mn Manganese Transition Metal	26 Fe Iron Transition Metal	27 Co Cobalt Transition Metal	28 Ni Nickel Transition Metal	29 Cu Copper Transition Metal	30 Zn Zinc Transition Metal	31 Ga Gallium Post-Transition Metal	32 Ge Germanium Metalloid	33 As Arsenic Metalloid	34 Se Selenium Nonmetal	35 Br Bromine Halogen	36 Kr Krypton Noble Gas										
37 Rb Rubidium Alkali Metal	38 Sr Strontium Alkaline Earth Metal	39 Y Yttrium Transition Metal	40 Zr Zirconium Transition Metal	41 Nb Niobium Transition Metal	42 Mo Molybdenum Transition Metal	43 Tc Technetium Transition Metal	44 Ru Ruthenium Transition Metal	45 Rh Rhodium Transition Metal	46 Pd Palladium Transition Metal	47 Ag Silver Transition Metal	48 Cd Cadmium Transition Metal	49 In Indium Post-Transition Metal	50 Sn Tin Post-Transition Metal	51 Sb Antimony Metalloid	52 Te Tellurium Metalloid	53 I Iodine Halogen	54 Xe Xenon Noble Gas	55 Cs Cesium Alkali Metal	56 Ba Barium Alkaline Earth Metal	57 La Lanthanum Lanthanide	58 Ce Cerium Lanthanide	59 Pr Praseodymium Lanthanide	60 Nd Neodymium Lanthanide	61 Pm Promethium Lanthanide	62 Sm Samarium Lanthanide	63 Eu Europium Lanthanide	64 Gd Gadolinium Lanthanide	65 Tb Terbium Lanthanide	66 Dy Dysprosium Lanthanide	67 Ho Holmium Lanthanide	68 Er Erbium Lanthanide	69 Tm Thulium Lanthanide	70 Yb Ytterbium Lanthanide	71 Lu Lutetium Lanthanide	
87 Fr Francium Alkali Metal	88 Ra Radium Alkaline Earth Metal	89 Ac Actinium Actinide	90 Th Thorium Actinide	91 Pa Protactinium Actinide	92 U Uranium Actinide	93 Np Neptunium Actinide	94 Pu Plutonium Actinide	95 Am Americium Actinide	96 Cm Curium Actinide	97 Bk Berkelium Actinide	98 Cf Californium Actinide	99 Es Einsteinium Actinide	100 Fm Fermium Actinide	101 Md Mendelevium Actinide	102 No Nobelium Actinide	103 Lr Lawrencium Actinide	85 At Astatine Halogen	86 Rn Radon Noble Gas	112 Cn Copernicium Transition Metal	113 Nh Nihonium Post-Transition Metal	114 Fl Flerovium Post-Transition Metal	115 Mc Moscovium Post-Transition Metal	116 Lv Livermorium Post-Transition Metal	117 Ts Tennessine Halogen	118 Og Oganesson Noble Gas										



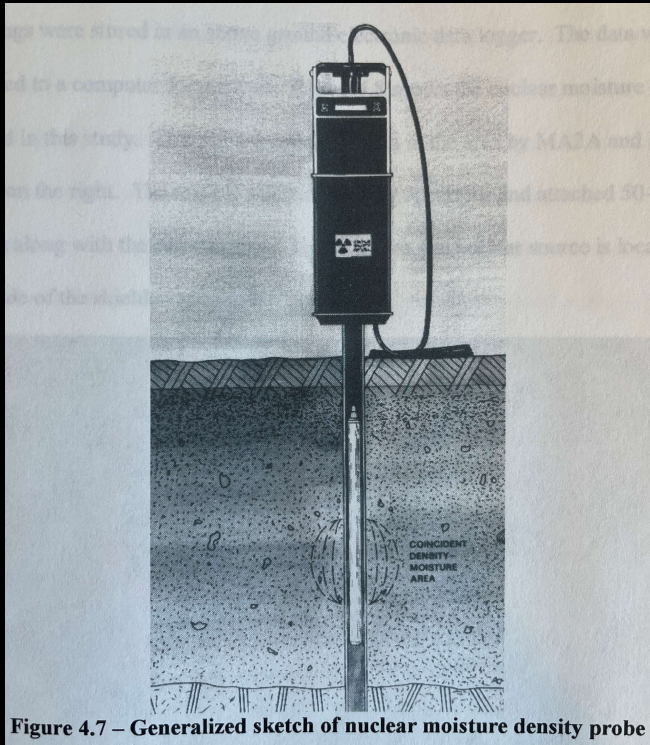


Figure 4.7 – Generalized sketch of nuclear moisture density probe

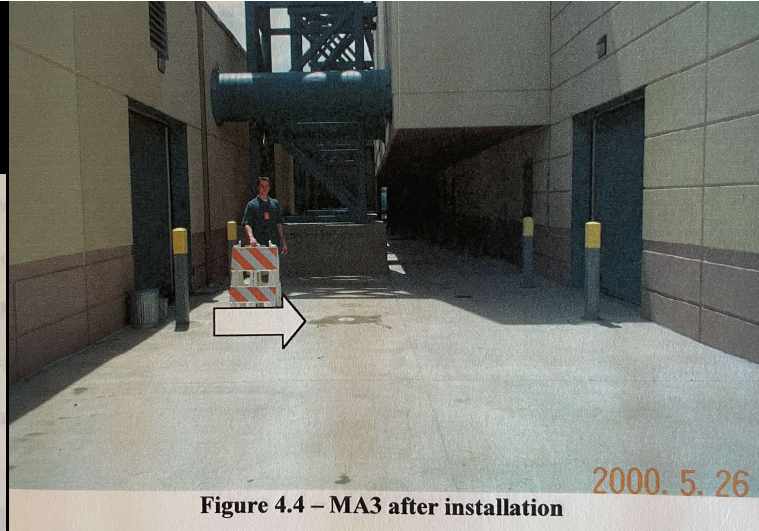


Figure 4.4 – MA3 after installation

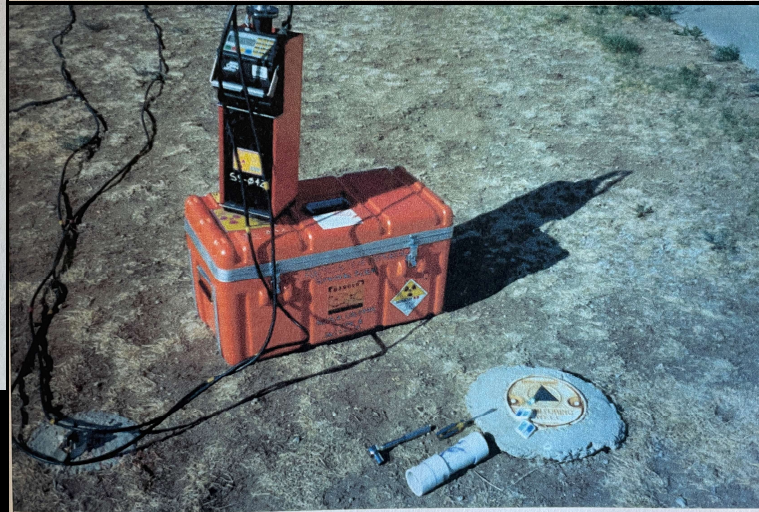
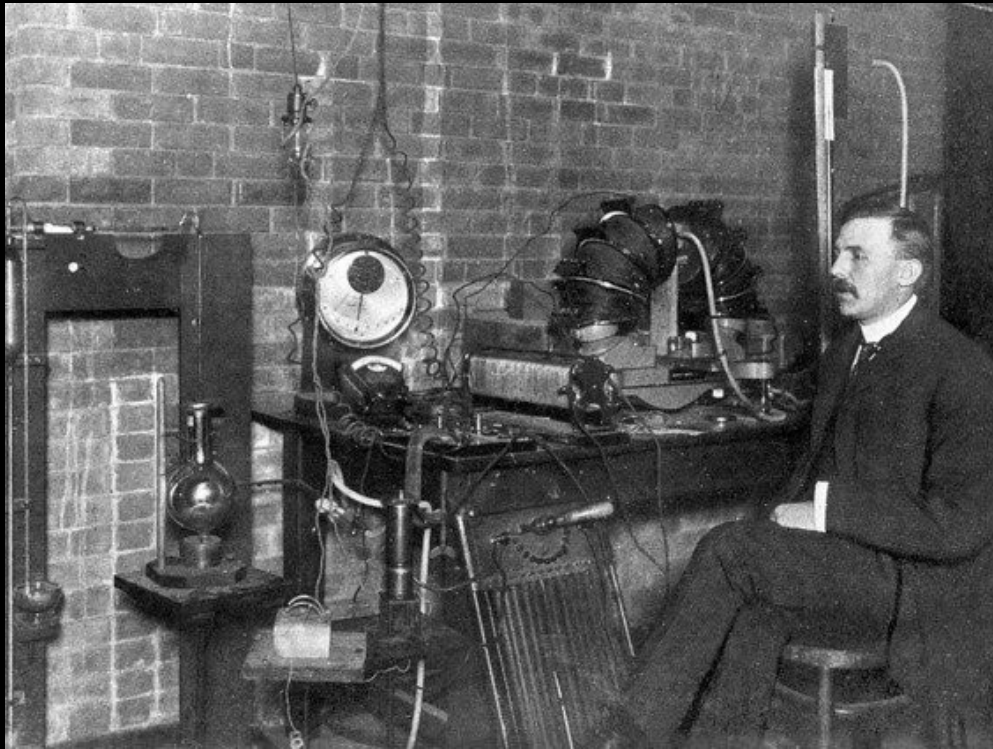
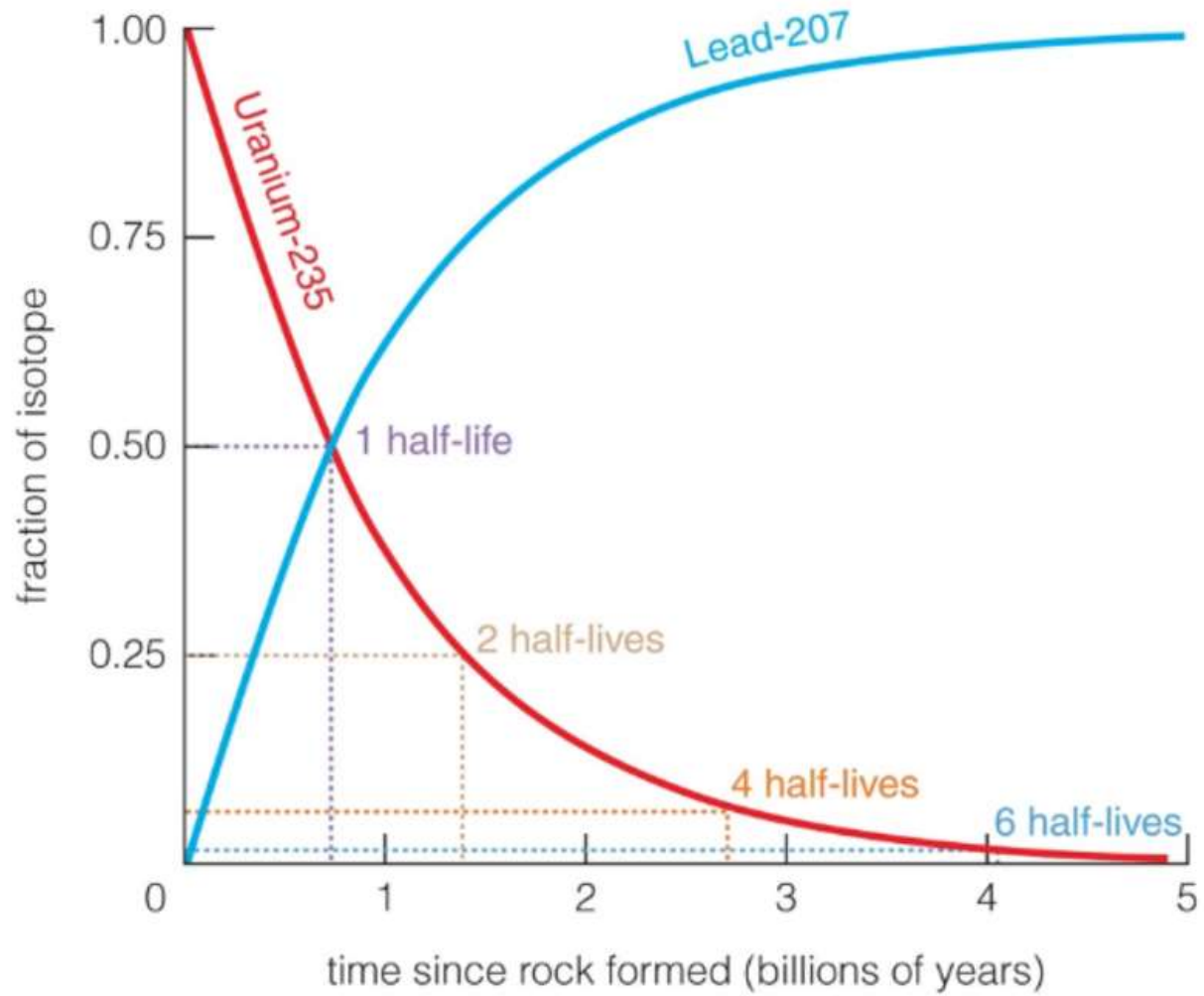


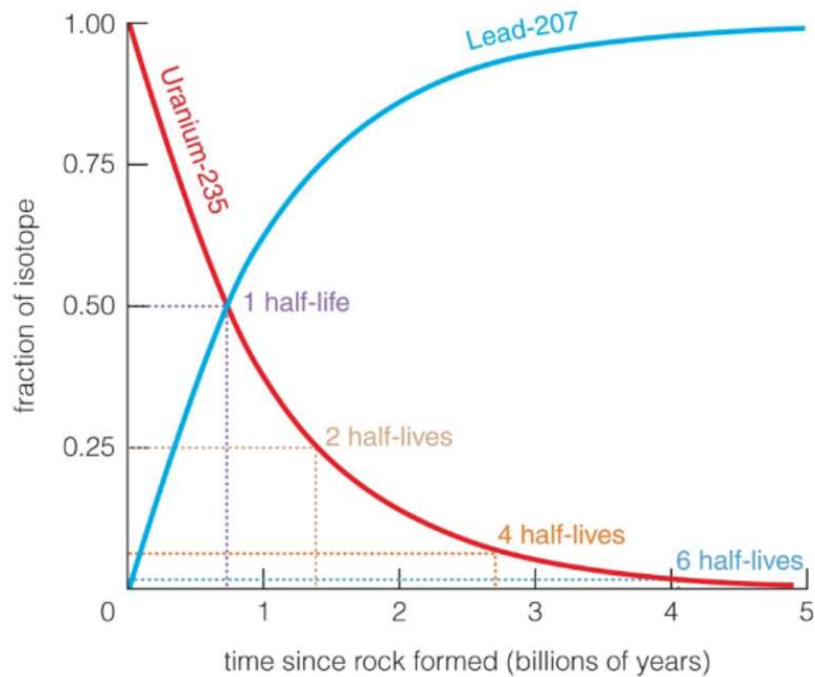
Figure 4.8 – Moisture density probe

1905 Ernest Rutherford Radiometric Dating



Old age
conclusions came
before the science.





$$t = \frac{1}{\lambda} \ln \left(1 + \frac{D}{N} \right)$$

λ = Decay constant

D = Daughter Product

N = Parent Remaining

#1 Assumed initial condition.

#2 Assumed constant rate of change.

#3 Assumed no outside contamination.

Examples of Radioactive Isotopes that Change into Stable Elements

Radioactive Parent Element	Stable Daughter Element	Half-Life
Carbon-14 (^{14}C)	Nitrogen-14 (^{14}N)	5,730 Years
Potassium-40 (^{40}K)	Argon-40 (^{40}Ar)	1.3 Billion Years
Uranium-238 (^{238}U)	Lead-206 (^{206}Pb)	4.5 Billion Years
Rubidium-87 (^{87}Rb)	Strontium-87 (^{87}Sr)	48.6 Billion Years

Periodic Table of Elements

TABLE LIST W/PROPERTIES GAME

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DISPLAY PROPERTY/TREND
Chemical Group Block

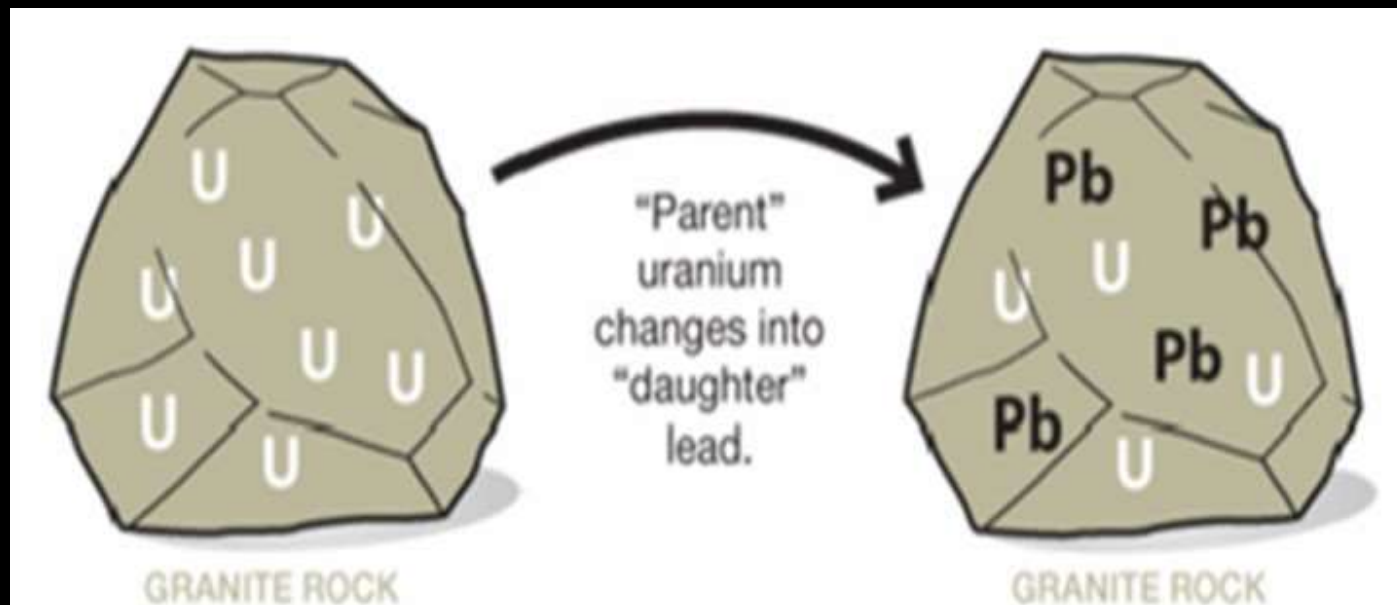
Atomic Number 17 35.45 Atomic Mass, u...
Name Chlorine Symbol Cl
Chemical Group Block Halogen
Plot Atomic Mass

The periodic table displays elements in a grid format. Each element cell contains its atomic number, symbol, name, and atomic mass. The elements are color-coded by groups. A callout box for Chlorine (Cl) shows its atomic number (17) and atomic mass (35.45). The table includes all elements from Hydrogen (1) to Oganesson (118).

#1 Assumed initial condition.

#2 Assumed constant rate of change.

#3 Assumed no outside contamination.



Dr. Andrew Snelling

How Radiometric Dating Works: Relative not Absolute Ages



23:17 – 25:37

https://www.youtube.com/watch?v=z1lBdLVyzzo&t=1397s&ab_channel=IsGenesisHistory%3F

<https://answersresearchjournal.org/radiometric-dates/>



Problems with the U-Pb Radioisotope Dating Methods—1. Common Pb

Dr. Andrew A. Snelling • July 26, 2017

Problems remain in the interpretation of the measured Pb isotopic ratios to transform them into ages.



Revisiting an Iconic Argument for Milankovitch Climate Forcing: Should the "Pacemaker of the Ice Ages" Paper Be Retracted? Part 3

Dr. Jake Hebert • Sept. 14, 2016

Despite its popularity, the Milankovitch hypothesis has



Determination of the Decay Constants and Half-Lives of Uranium-238 (^{238}U) and Uranium-235 (^{235}U), and the Implications for U-Pb and Pb-Pb Radioisotope Dating Methodologies

Dr. Andrew A. Snelling • Jan. 18, 2017

Without accurately known decay half-lives, all radioisotope ages cannot be accurately determined or be considered absolute ages.



Determination of the Radioisotope Decay Constants and Half-Lives: Potassium-40 (^{40}K)

Dr. Andrew A. Snelling • Aug. 3, 2016

Dr. Snelling documents the methodology and history of



Do Varves, Tree-Rings, and Radiocarbon Measurements Prove an Old Earth?

Dr. Jake Hebert, et al. • Dec. 7, 2016

The BioLogos Foundation published a popular-level article by old-earth geologists Gregg Davidson and Ken Wolgemuth presenting arguments for an old earth.



Big Gaps and Short Bridges: A Model for Solving the Discontinuity Problem

Change Laura Tan • July 6, 2016

This paper argues that the issue with the origin of life and the origin of biodiversity is not an



Discrepancies Between Geological Field Relationships and Radiometric Isotope Ages

Herman Dorland • Dec. 8, 2021

If the Radioisotope Age (Dolerite) > Radioisotope Age (intruded succession) then there is a violation of the relative age inequality.



Fossil Grove and other Paleozoic Forests as Allochthonous Flood Deposits

Kurt P. Wise • Nov. 7, 2018

Fossil Grove offers multiple evidences in support of a huge forest biome floating atop the world's pre-Flood oceans.



The Petrology of the Tapeats Sandstone, Tonto Group, Grand Canyon, Arizona

Dr. Andrew A. Snelling • June 23, 2021

The petrology of the Tapeats Sandstone is consistent with the global Genesis flood.



Problems with the U-Pb Radioisotope Dating Methods—2. U and Pb Mobility

Dr. Andrew A. Snelling • June 13, 2018

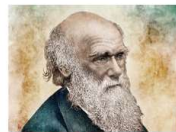
Since the amount of U and Pb mobility in most cases has been small, then the determinations can be used to provide useful relative ages.



Problems with the U-Pb Radioisotope Dating Methods—3. Mass Fractionation

Dr. Andrew A. Snelling • Nov. 13, 2019

The evidence for grossly accelerated radioisotope decay during a past cataclysmic event such as the Genesis Flood has been well established.



Response to "No Replacement of Darwin: A Review of Replacing Darwin—The New Origin of Species"

Dr. Nathaniel T. Jeanson • April 25, 2018

Ironically, Frello has actually done me a great favor; his review ends up bolstering my original claims.



Revisiting an Iconic Argument for Milankovitch Climate Forcing: Should the "Pacemaker of the Ice Ages" Paper Be Retracted? Part 2

Dr. Jake Hebert • May 25, 2016

Part 1 of this series presented a number of serious problems with the Pacemaker paper. It is necessary to also understand the Blackman-Tukey (B-T) method.



Determination of the Radioisotope Decay Constants and Half-Lives: Samarium-147 (^{147}Sm)

Dr. Andrew A. Snelling • June 10, 2015

Over the last 80 years numerous determinations have



On the Origin of Human Mitochondrial DNA Differences, New Generation Time Data Both Suggest a Unified Young-Earth Creation Model and Challenge the Evolutionary Out-of-Africa Model

Dr. Nathaniel T. Jeanson • April 27, 2016

These results underscore the biblical model of human origins and simultaneously undercut the validity of the evolutionary out-of-Africa model.



Radioisotope Dating of Meteorites: IV. The Primitive and Other Achondrites

Dr. Andrew A. Snelling • May 6, 2015

This paper documents radioisotope dating for meteorites, achondrites,



Radioisotope Dating of Meteorites: V. Isochron Ages of Groups of Meteorites

Dr. Andrew A. Snelling • Dec. 16, 2015

This contribution is designed to document the radioisotope dating data for groups of chondrites, stony achondrites, pallasites and mesosiderites, and irons.



Determination of the Radioisotope Decay Constants and Half-Lives: Rhenium-187 (^{187}Re)

Dr. Andrew A. Snelling • Feb. 25, 2015

If the Re-Os dating method is calibrated against an uncertain

Is Genesis History on Youtube Search “radiometric dating”

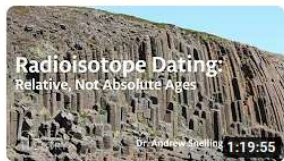


What is Radioisotope Dating? And Can We Trust It? - Dr. Andrew Snelling

Is Genesis History? • 69K views • 3 years ago

Taken from "Beyond Is Genesis History? Vol 1 : Rocks & Fossils." Check it out on our website: <http://bit.ly/BIGH-1> After you've watched the documentary film and want to learn more, this...

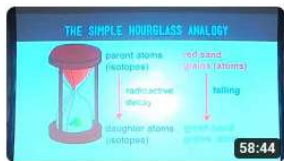
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How Radiometric Dating Works: Relative not Absolute Ages - Dr. Andrew Snelling (Conf Lecture)

Is Genesis History? • 71K views • 6 years ago

We're currently filming the sequel to *Is Genesis History?* Learn more and sign up for updates here - <https://bit.ly/mountains-update> This...



A Summary of Radiometric Dating - Dr. Andrew Snelling (Conf Lecture)

Is Genesis History? • 14K views • 3 years ago

This lecture is from our 2017 'Is Genesis History?' conference. We invited a number of scientists and scholars to teach in-depth on the Creation/Flood model. Here, Dr. Andrew Snelling introduces...

CC



What is Radiocarbon Dating and is it reliable? - Dr. Andrew Snelling (Conf Lecture)

Is Genesis History? • 29K views • 4 years ago

If you like this lecture from the 2017 IGH Conference, you can get it and over 70 more at: <https://isgenesishistory.com/conference/> Dr. Snelling completed a BS in applied geology at the Universit...

Redding, California #1 - Three different ages (mudstone)



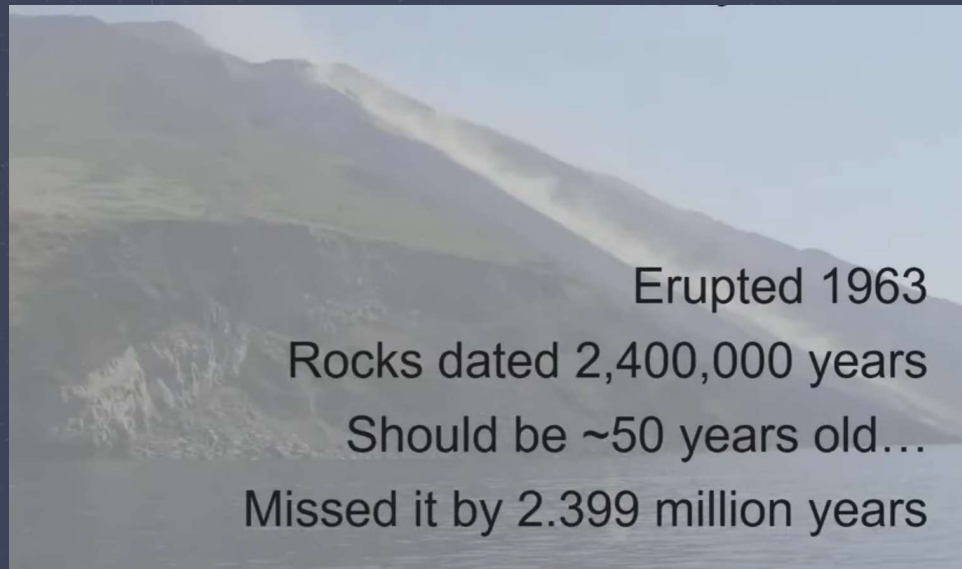
Dating Results from Ammonites and Wood Fossils in the Ono Formation (Snelling, 2008)

Specimen	Rock layers	Ammonites	Wood
Dating	112 to 120 Million (conventional age)	36,400 to 48,710 carbon years	32,780 to 42,390 carbon years



Mt. Stromboli, Italy

#2 - different age than known age (basalt)



Mt. Stromboli, Italy

#2 - different age than known age (basalt)

Table 1. Young rocks from recent eruptions (<1,000 years old) yield greatly exaggerated apparent ages. The data used in this table was retrieved from mainstream scientific journals.^{7,8,9,10,11,12}

Location	When Lava Extruded	Measured Age
Hualalai basalt	1800-1801 A.D.	1.6 million years
Mount Etna basalt	122 B.C.	0.25 million years
Mount Etna basalt	1792 A.D.	0.35 million years
Mount Lassen basalt	1915 A.D.	0.11 million years
Sunset Crater basalt	1064-1065 A.D.	0.27 million year
Kilauea basalt	<200 years ago	21 million years
Kilauea basalt	<1,000 years ago	42.9 million years
Kilauea basalt	<1,000 years ago	30.3 million years
Kilauea Iki basalt	1959 A.D.	8.5 million years
Mount Stromboli	1963 A.D.	2.4 million years
Hualalai basalt	1800-1801 A.D.	22.8 million years
Rangitoto basalt	<800 years ago	0.15 million years
Mount Erebus	1984 A.D.	0.64 million years
Mount Etna basalt	1964 A.D.	0.7 million years
Medicine Lake obsidian	<500 years ago	12.6 million years

*Literature review and compilation of listed data credited to Dr. Andrew Snelling.¹³

Things to Consider about Radiometric Dating...

Samples of
Known Age



Radiometric
Dating
DOESN'T WORK



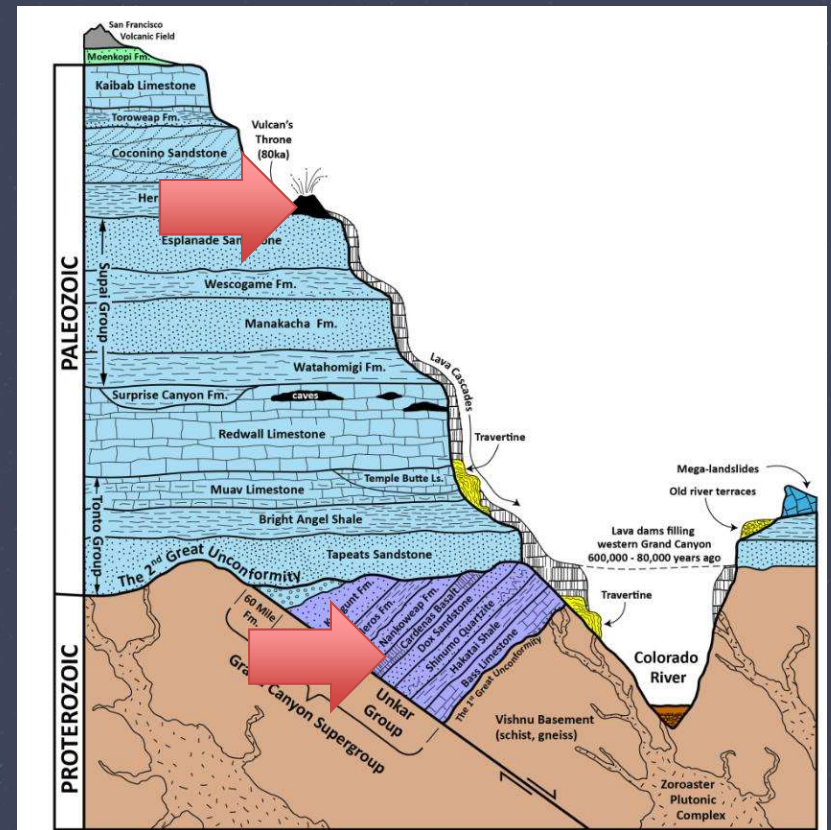
Samples of
Unknown Age



Radiometric
Dating **ASSUMED
TO WORK**

Grand Canyon, Arizona

#3 - Same age, should be different. (basalt)

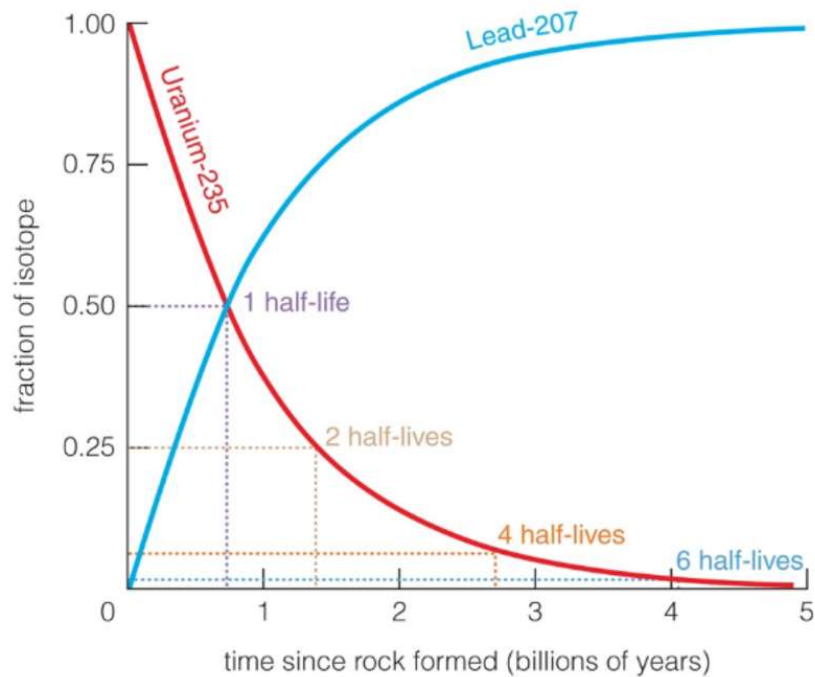


South African granitic rock #4 - Same sample yields different ages (granite)

CONTAMINATION

- A granitic rock in South Africa yielded a **Pb-Pb and Sm-Nd** isochron "age" of **2,915 million years**
- But a **Rb-Sr** isochron for the minerals within the rock yielded an "age" of **2,023 million years**
- And an albite grain in the rock yielded Rb-Sr "ages" of **5,852 million years** at its outer edge and **3,067 million years** in its core





$$t = \frac{1}{\lambda} \ln \left(1 + \frac{D}{N} \right)$$

λ = Decay constant

D = Daughter Product

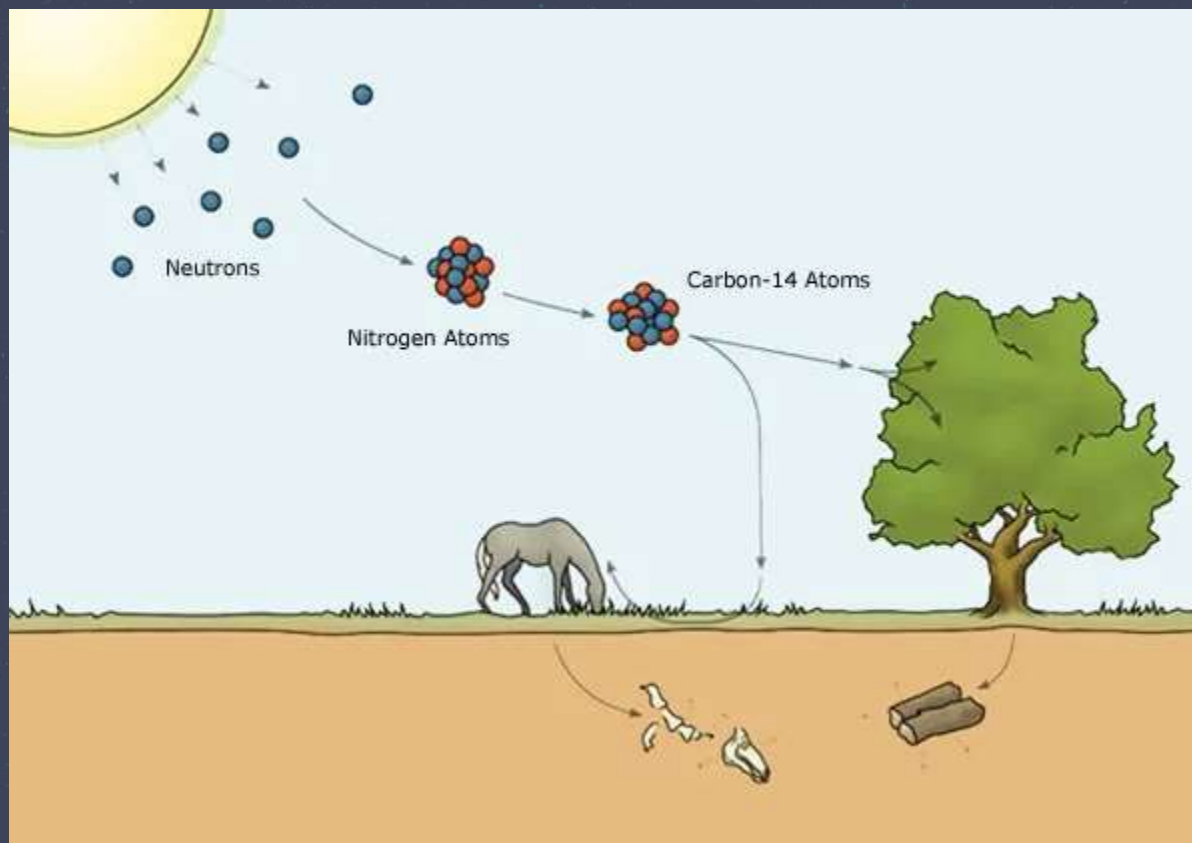
N = Parent Remaining

#1 Assumed initial condition.

#2 Assumed constant rate of change.

#3 Assumed no outside contamination.

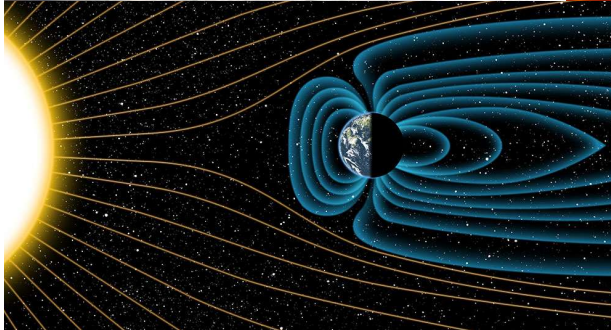
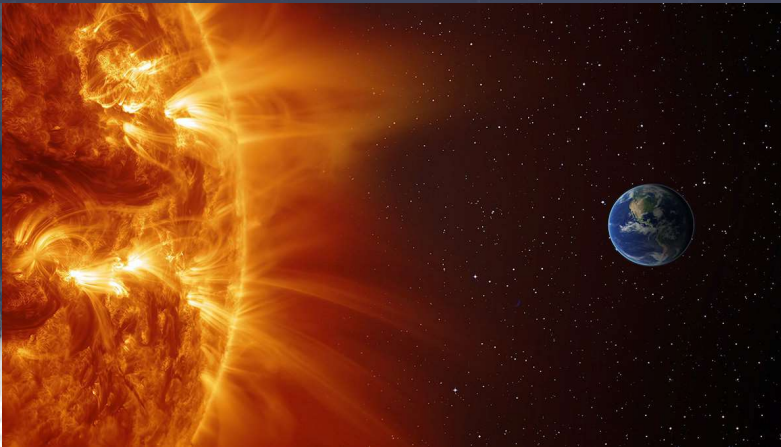
Carbon-14 dating (Developed in 1946)



https://www.youtube.com/watch?v=phZeE7Att_s&ab_channel=ScientificAmerican

0:00- 2:00

Carbon-14 dating - No Contamination?



British Carbon-14 Validation Tests at 38 different labs.

 **PASS**

- ✓ C14 LAB #1
- ✓ C14 LAB #10
- ✓ C14 LAB #22
- ✓ C14 LAB #2
- ✓ C14 LAB #9
- ✓ C14 LAB #17
- ✓ C14 LAB #12

18%

- ✗ C14 LAB #5
- ✗ C14 LAB #38
- ✗ C14 LAB #4
- ✗ C14 LAB #37
- ✗ C14 LAB #15
- ✗ C14 LAB #27
- ✗ C14 LAB #8
- ✗ C14 LAB #25
- ✗ C14 LAB #13
- ✗ C14 LAB #31
- ✗ C14 LAB #36
- ✗ C14 LAB #34
- ✗ C14 LAB #7
- ✗ C14 LAB #26
- ✗ C14 LAB #21
- ✗ C14 LAB #28
- ✗ C14 LAB #35
- ✗ C14 LAB #30
- ✗ C14 LAB #11
- ✗ C14 LAB #33
- ✗ C14 LAB #24
- ✗ C14 LAB #32
- ✗ C14 LAB #14
- ✗ C14 LAB #19
- ✗ C14 LAB #29
- ✗ C14 LAB #6
- ✗ C14 LAB #16
- ✗ C14 LAB #20
- ✗ C14 LAB #18
- ✗ C14 LAB #3



Examples of Radioactive Isotopes that Change into Stable Elements

Radioactive Parent Element	Stable Daughter Element	Half-Life
Carbon-14 (^{14}C)	Nitrogen-14 (^{14}N)	5,730 Years
Potassium-40 (^{40}K)	Argon-40 (^{40}Ar)	1.3 Billion Years
Uranium-238 (^{238}U)	Lead-206 (^{206}Pb)	4.5 Billion Years
Rubidium-87 (^{87}Rb)	Strontium-87 (^{87}Sr)	48.6 Billion Years

Half Life Cycles	Percentage of Remaining Carbon 14	Years Ago
0	100.0	0
1	50.0	5,730
2	25.0	11,460
3	12.5	17,190
4	6.3	22,920
5	3.1	28,650
6	1.6	34,380
7	0.8	40,110
8	0.4	45,840
9	0.2	51,570
10	0.1	57,300
11	0.05	63,030
12	0.02	68,760
13	0.01	74,490
14	0.01	80,220
15	0.003	85,950
16	0.002	91,680
17	0.001	97,410
18	0.0004	103,140
19	0.0002	108,870
20	0.0001	114,600

Carbon-14 in Coal

Carbon 14 is found in coal layers in rock sequences dated to 34,000,000 to 318,000,000 years old.



Carbon-14 in Diamonds

Carbon 14 is found in diamonds which are supposedly 1.0 – 3.5 billion years old.



Carbon-14 in Dinosaur fossils

Carbon 14 is found in dinosaur fossils which are supposedly 66,000,000 to 245,000,000 years old.



12 evidences for a “young earth.”

#1 Assumed initial condition.

#2 Assumed constant rate of change.

#3 Assumed no outside contamination.

#1 - Human Population

Exponential Growth Formula

$$x_t = x_0 \times (1 + r)^t$$

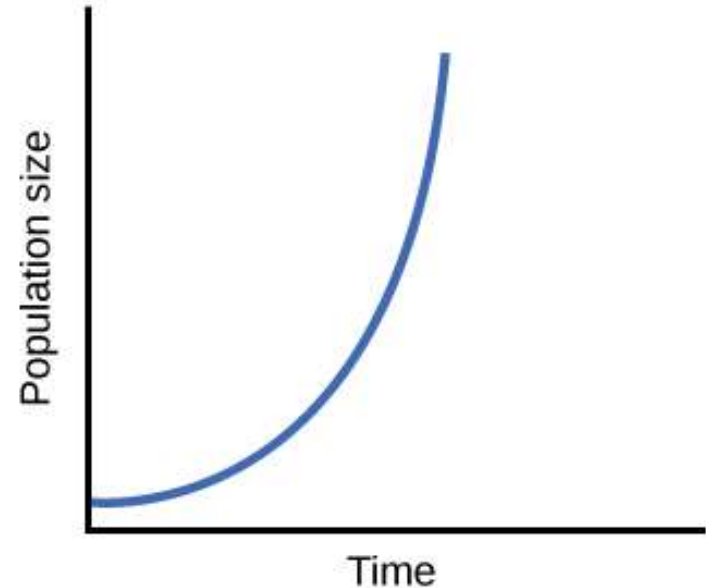


www.inchcalculator.com

t	250,000 years ago
X₀	2 people
r	0.468% growth rate
X_t	<u>Infinity</u> people now

4,500 years ago
6 people
0.468% growth rate
<u>8 billion</u> people now

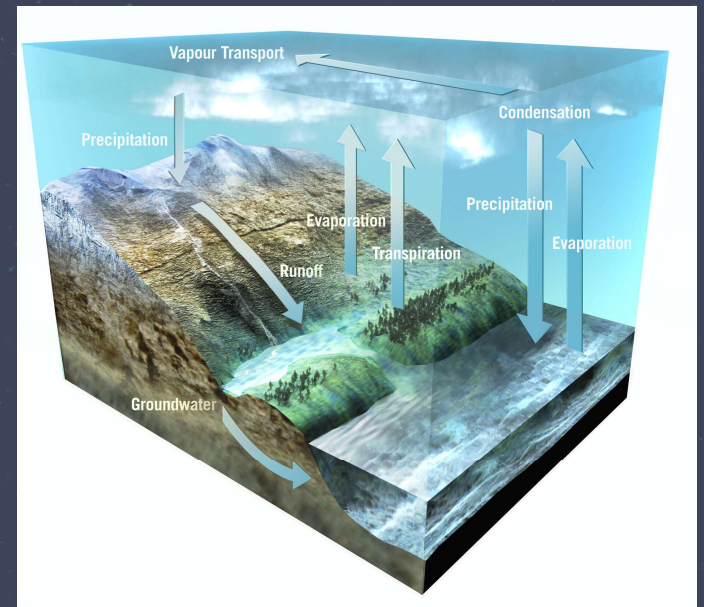
Exponential Growth



#2 The amount of salt in the oceans

The oceans are thought to be 3,800,000,000 years old.

But based on salt input the max age is 62,000,000 years old.



#3 The continental erosion

The continents are thought to be 2,500,000,000 years old.

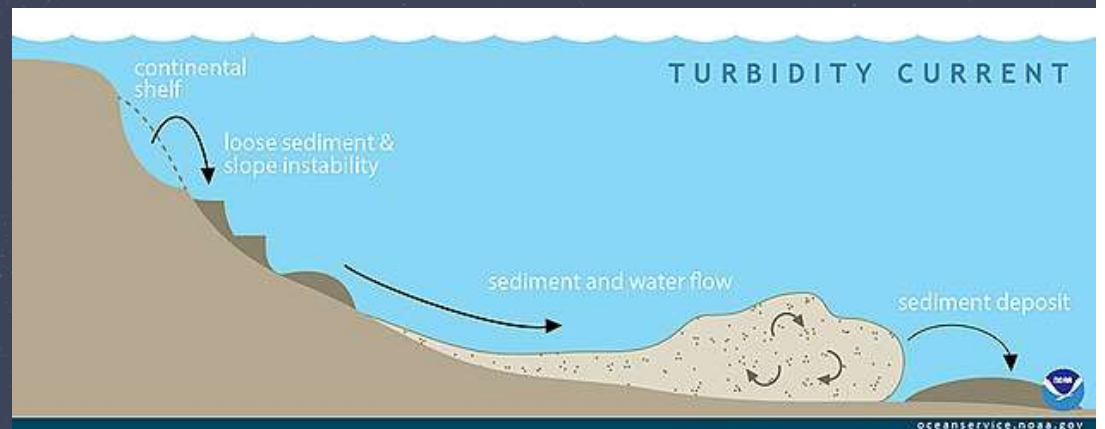
But a number of geologists have calculated that North America should have been levelled in 10,000,000 years if erosion has continued at the current rate.



#4 The ocean sediment

The ocean floor is thought to be 3,000,000,000 years old.

The amount of sediment on the sea floors at current rates of erosion would accumulate in just 12,000,000 years.



#5 The faint young sun paradox

The sun is getting brighter.

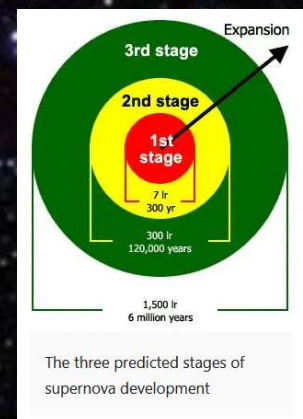
The current average temperature is 60 °F, so the earth should have had a temperature below freezing (28 °F) when life appeared.



#6 Supernova remnants

The number of type I supernova remnants (SNRs) observable in our galaxy is consistent with an age of thousands of years, not millions or billions.

Supernova Remnant Stage	Number of observable SNRs predicted if our galaxy were...		Number of SNRs actually observed
	... billions of years old	... 7000 years old	
First	2	2	5
Second	2260	125	200
Third	5000	0	0



#7 The recession of the moon from the earth

The moon and earth would have been in catastrophic proximity at less than a quarter of their supposed age.



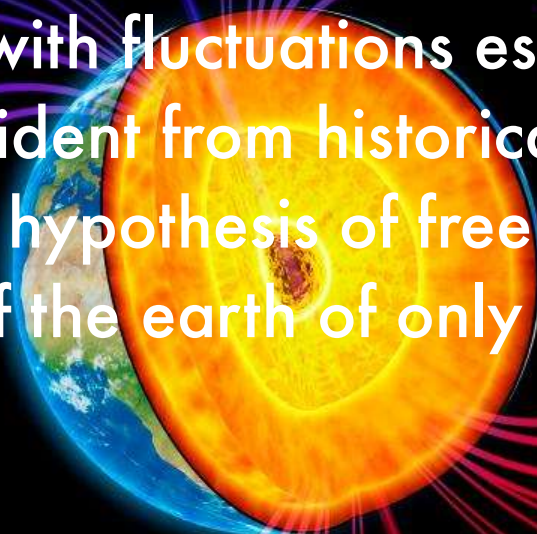
#8 Existence of long-period comets

Their existence is consistent with a young age for the solar system.



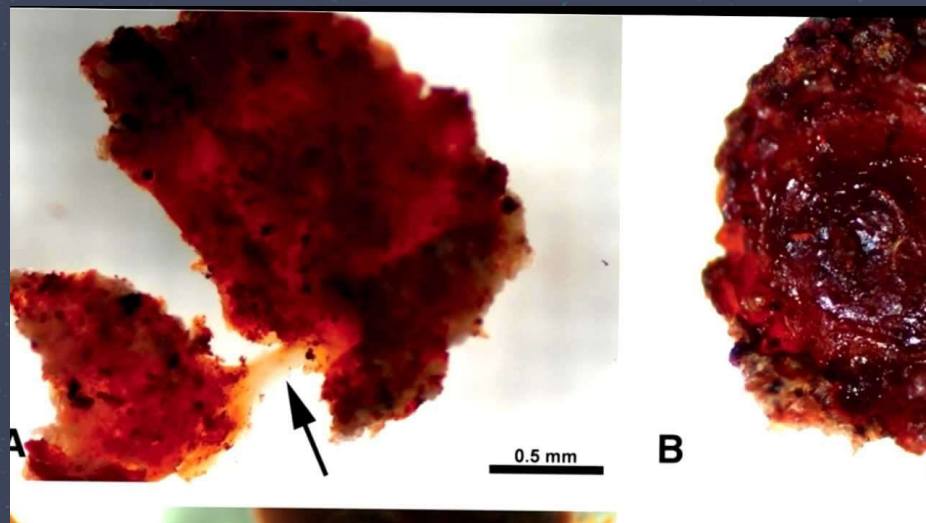
#9 Decay of earth's magnetic field

Exponential decay, with fluctuations especially during and after the Flood, is evident from historical measurements and is consistent with the hypothesis of free decay since creation, suggesting an age of the earth of only thousands of years



#10 Dinosaur soft tissue

Dinosaur blood cells, blood vessels, proteins and DNA are not consistent with their supposed more than 65,000,000 year age, but make more sense if the remains are thousands of years old.



#11 Oldest tree on the planet

The ages of the world's oldest living organisms, trees, are consistent with an age of the earth of thousands of years.
(Great Basin Bristlecone Pine – 5,000 years old)



#12 Arches National Park

One collapse per year means that all would be gone in 2,000 years.



#1 Assumed initial condition.

#2 Assumed constant rate of change.

#3 Assumed no outside contamination.

ISAIAH 40:28

Do you not know? Have you not heard? The LORD is the everlasting God, the Creator of the ends of the earth. He will not grow tired or weary, and his understanding no one can fathom.

**Maybe we
should take
the word of the
One who was
there?**

Discussion Questions:

1. What did you learn tonight? Any observations on the ideas and thoughts presented?
2. Any comments on Charles Lyell's quote about wanting to remove the Bible from geology before the invention of modern radiometric dating methods?
3. Why would people continue to utilize dating methods with inconsistent results?
4. Which of the 12 evidences for a young earth did you find the most compelling and why?
5. Have a few people pray.



God's Grand Design

Exploring Origins in Science and Scripture