# Young Earth Creationism -The Scientific Evidence-

-Jason Mullett

#### Carbon 14

- What is Carbon 14?
- What is C14 (Radiocarbon) dating?
- Atmospheric C14 equilibrium

# Carbon 14 (Radio Carbon) Creation N14 C14

#### Carbon 14 half-life (t<sub>1/2</sub>)

$${}^{14}_{6}\text{C} \rightarrow {}^{14}_{7}\text{N} + e^{-} + \overline{v}_{e}$$

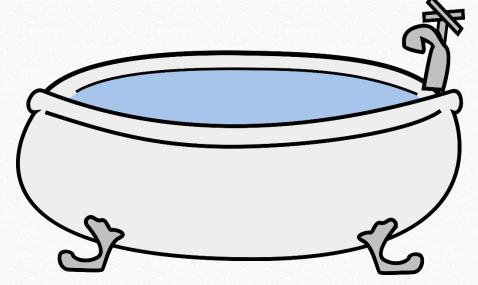
	5730			5730 Years		5730 Years		190 ears	
8	<sup>14</sup> C		<sup>14</sup> N	6	<sup>14</sup> N	7	<sup>14</sup> N	8	<sup>14</sup> N
7	<sup>14</sup> C		<sup>14</sup> N	5	<sup>14</sup> N	6	<sup>14</sup> N	7	<sup>14</sup> N
6	<sup>14</sup> C	2	<sup>14</sup> N	4	<sup>14</sup> N	5	<sup>14</sup> N	6	<sup>14</sup> N
5	<sup>14</sup> C	1	<sup>14</sup> N	3	<sup>14</sup> N		<sup>14</sup> N	5	<sup>14</sup> N
4	<sup>14</sup> C	4	<sup>14</sup> C	2	<sup>14</sup> N		<sup>14</sup> N	4	<sup>14</sup> N
3	<sup>14</sup> C		<sup>14</sup> C	1	<sup>14</sup> N		<sup>14</sup> N	3	<sup>14</sup> N
2	<sup>14</sup> C		<sup>14</sup> C		<sup>14</sup> C	1	<sup>14</sup> N	2	<sup>14</sup> N
1	<sup>14</sup> C	1	<sup>14</sup> C	1	<sup>14</sup> C	1	<sup>14</sup> C	1	<sup>14</sup> N

# Radio Carbon Dating

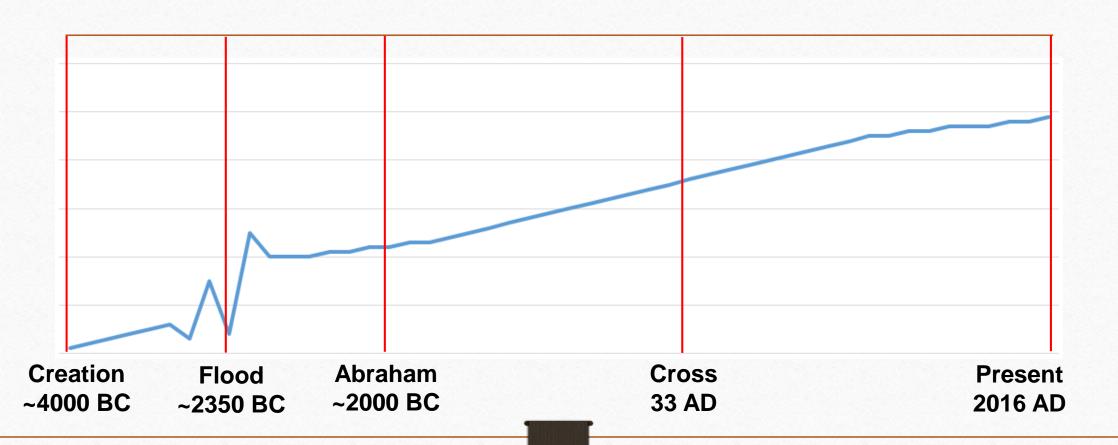
- 1 or 1.5 C14 atoms per 10<sup>12</sup> C12 atoms
- Animals and plants develop an equilibrium with Exchange Reservoir
- Equilibrium is assumed (Pre-industrial Revolution)
- Accelerator mass spectrometry
- ~55,000 years back using present day C14 levels

### Experiment

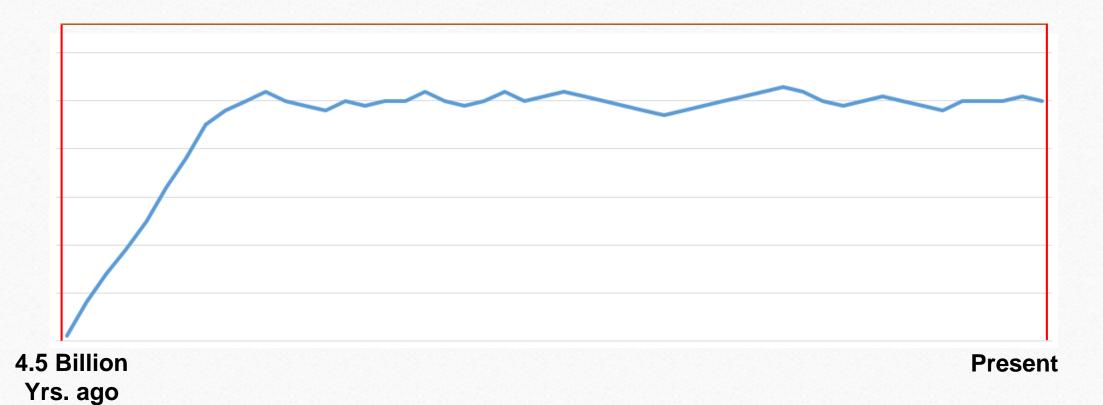
- 5 gallons per/minute
- The tub currently has 20 gallons
- How long ago did the tub begin to fill?
- Answer 4 min ago
- WRONG!
- I failed to mention that the tub started with 10 gallons already in the tub



#### Creation Timeline

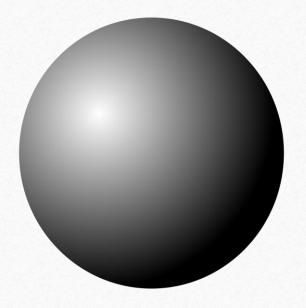


# Evolutionary Timeline



# Earth was entirely made up of C14

- $1.33*10^{50}$  atoms in the world
- After 168 half-lifes (t<sub>1/2</sub>) there is none left
- No C14 remains after 962,640 years
- The earth would be a ball of nitrogen



#### Fossils and coal contain C14

• Fossils and coal yield ages between 20,000 and 50,000 years using carbon-14 dating





#### Diamonds contain C14

- Hardest substance on earth.
- Impervious to contamination
- Evolutionists claim are 1-3 billion years old
- Radiocarbon labs report over 10 times the detection limit
- Diamonds are dated to be around than  $\sim$ 50,000 yrs. old



### Atmospheric C14 Equilibrium

- Dr. Willard Libby, the founder of the carbon-14 dating method
- If the cosmic radiation has remained at its present intensity for 20,000 or 30,000 years, and if the carbon reservoir has not changed appreciably in this time, then there exists at the present time a complete balance between the rate of disintegration of radiocarbon atoms and the rate of assimilation of new radiocarbon atoms for all material in the life-cycle. \*W. Libby, Radiocarbon Dating, Univ. of Chicago Press, Chicago, Illinois, 1952, 8
- Specific Production Rate (SPR) of C-14 is known to be 18.8 atoms per gram of total carbon per minute vs. the Specific Decay Rate (SDR) is known to be only 16.1 disintegrations per gram per minute. \*C. Sewell, "Carbon-14 and the Age of the Earth," 1999
- The ratio of C14:C12 is not constant but increases till it reaches equilibrium (SPR and SDR are 1:1) in 30,000 years.

# Atmospheric C14 Equilibrium

