

Name: _____ Date: _____



Question 1: WHEN IN THE WORLD?

Due: Friday in class

Geologic time is a very complicated concept to wrap our brains around. To help us visualize the great age of our planet and the significant events that have occurred throughout its history you are now creating your own time line analogy. "If time were a roll of toilet paper humans would be less than the last square." In this analogy, one end will represent the present time, and the other will represent the birth of our planet.

- 1- What will your analogy be?
- 2- How many parts should your time line have?
Hint: don't just count how many rows- there are fifteen billion years how will you do this?
- 3- Set up your ratio: How long is your object? Call this "L"
Time to cross multiply... to find your distance
- 4- Calculate each distance
- 5- Build your visual

$\frac{\text{G. Time}}{15 \text{ mill}} = \frac{\text{D}}{\text{L}}$
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Timeline rubric	
Used all dates <p style="text-align: right;">Pts 10</p>	
The visual successfully depicted the time <p style="text-align: right;">Pts 10</p>	
Creativity added and did not distract from content <p style="text-align: right;">Pt 5</p>	
Project was handed in on time <p style="text-align: right;">Pts 5</p>	
Successfully worked with partner and you used class time wisely <p style="text-align: right;">Pts 5</p>	
Comments	
Pts total 35	

Geologic Time	Your distance
15 billion y.a. BIG BANG	
14.7 billion y.a. atoms form (hydrogen and helium)	
14 billion y.a. stars begin to ignite—earliest galaxies form—supernovae begin to produce heavier elements	
8 billion y.a. Milky Way galaxy forms	
4.6 billion y.a. our sun and planets, including earth, condense	
4 billion y.a. amino acids form in earth's primordial seas	
3.5 billion y.a. microbes evolve	
1.5 billion y.a. modern (eukaryotic) cells evolve	
700 million y.a. multicellular organisms develop	
543 million y.a. "explosion" of fossil animals	
490 million y.a. first vertebrates (jawless fish), first land plants	
438 million y.a. first insects	
408 million y.a. jawed fish	
360 million y.a. amphibians, seed plants	
320 million y.a. reptiles	
250 million y.a. dinosaurs	
205 million y.a. mammals, birds, flowering plants	
65 million y.a. dinosaurs extinct, rise of birds and mammals	
1.8 million y.a. first humans	
10 thousand y.a. agriculture, civilization	
150 y.a. industrial revolution	