

Deep Time Project

I. Introduction

Your task in this investigative project is to work in pairs to create an analogy that helps us (and you) wrap our brains around the nearly incomprehensible span of time that represents the entire history of the Earth.

You will map out significant Geological and Biological events in your project to convey a sense of how long ago these events happened relative to other events. You may be surprised by how "recently" certain events happened relative to the entire history of the planet.

Grading Rubric: Total points possible = 30

F = 0 points: No product submitted.

D = 18 – 20 points

A project was attempted but does not accurately depict the events of Earth's 4600 million-year history AND the project was submitted without the required information and/or structure

C = 21 – 23 points

A project was attempted but does not accurately depict the events of Earth's 4600 million-year history.

Or, a "B" project was attempted but is inaccurate or has poor workmanship.

B = 24-26 points

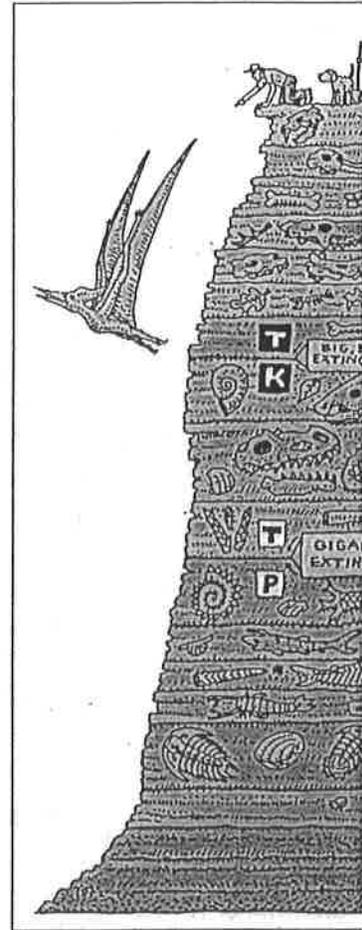
An analogy of 1 meter was selected to depict the 4600 million years of Earth's history and completed on a length of paper. The placement of events is accurate and complete and the final product shows good workmanship.

Or, an "A" project was attempted but is inaccurate or has poor workmanship.

A = 27 – 30 points

An analogy was selected to depict the 4600 million years of Earth's history. High quality illustrations (which do not have to be hand-drawn) of selected events are added to make the project interesting and attractive. The placement of events is accurate and complete and the final product shows good workmanship.

(Note: you may also choose to use a model other than one meter)



II. Procedure

1. Choose groups of 2
2. Select a timeline model to represent the time the Earth has existed (ex: 1 meter)
3. Make a list of 10 geological and 10 biological events. Write the event, and how long ago it occurred, in your Results section (see below). Feel free to look up other events in various resources, but always cite those sources. The first geologic event must be the origin of the Earth. You may choose any other events to complete your list.
•(see Appendix 3, pp.722-723, BSCS Green text).

Carl Sagan's Cosmic calendar:

<http://www.youtube.com/watch?v=Ln8UwPd1z20>

Also: new Cosmos series (on Netflix) Episode 1, starting around minute 27.

