

Name: _____ Period: _____

Geologic Time Scale

The Earth is approximately 4.55 billion years old. The geologic time scale on the back of this paper shows the major divisions of geologic time, but they are not to scale. If you look at the times (most measured in Ma or millions of years ago) you will see that the length of the area on the timeline does not necessarily correspond to the amount of time that the particular portion of the timeline lasted. In this activity you are going to make a true scale geologic timeline to get a better idea of the amount of time we will be discussing in the geology unit.

Procedure

- 1.) Use a ruler to draw a straight line down the middle of the graph paper (held vertically, not horizontally)

- 2.) Your timeline will need to fit on a single sheet of graph paper so you will need to determine a scale for your it. Your scale should be set up as *x amount of distance = y million years*. Write this scale on your timeline.

- 3.) Using your scale determine the locations of the following events on your timeline and label them accordingly. Make sure to provide units for distances. Label each eon and era.

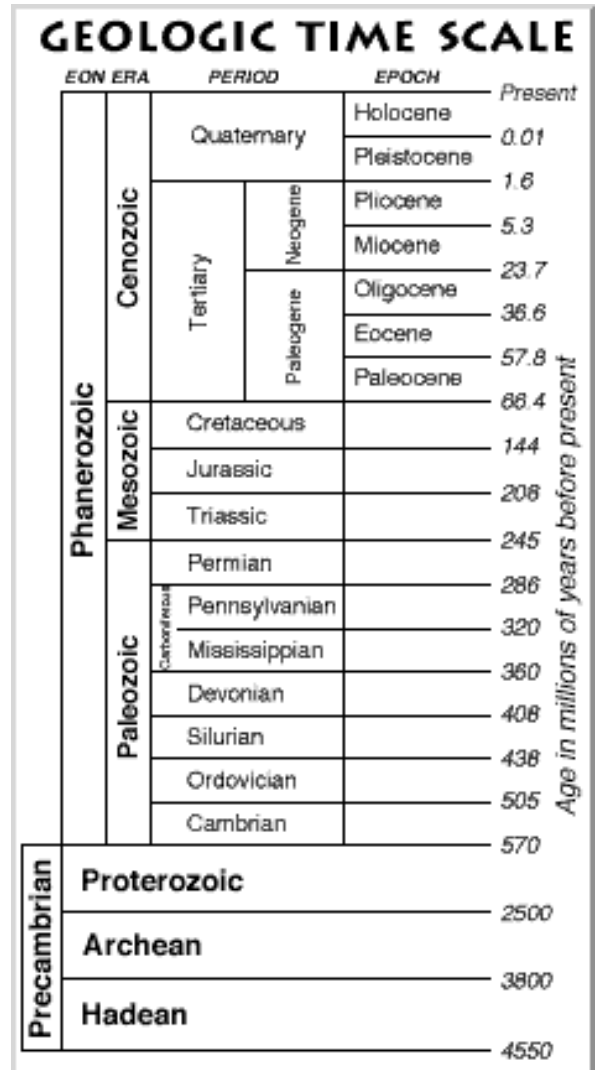
Event	Approximate Age	Distance on timeline
Rocky Mountains Formed	80 Million Years	
First Known Fish	510 Million Years	
Earliest Humans	2 Million Years	
First Known Mammal	200 Million years	
First Single-Celled Organism	1.2 Billion Years	
Columbus Discovers "New World"	506 Years	
Oldest rock	3.8 Billion Years	
Extinction of the Dinosaurs	65 Million Years	
First Plant	498 Million Years	
First Bird	160 Million Years	
First Multi-Celled Organism	700 Million Years	

Lab Questions

1. Find where your birth date would be on the graph paper. Why is it almost impossible to show a human's life on this scale? Would it be easier if we changed the number of years that 1 mm represents?

2. In what **periods** did fish, mammals, reptiles, amphibians, and plants appear on Earth? (You will need to use the geologic timescale provided to get the period names.)

3. Look at the geologic time scale. Why do you think the Phanerozoic Eon has many more divisions and dates associated with it than the Archean Eon?



4. How many years does the first 10 millimeters represent? What events are within the first 10 mm of the present time end of the timeline?