

Geologic Timeline Lab

Introduction:

The history of the earth runs for a very long time. So long in fact that, for most of us, it becomes a very difficult thing to conceptualize since comparing the magnitude of geologic time with spans of time in a person's lifetime is very difficult for many people. And yet, in examining the history of the earth we get a better picture of our influences we have and our place on the planet as a species. To help us understand more about our planets past we will map out the earths history for the last 5 billion years.

Objective: In this activity, you will use a long paper strip and a reasonable scale to represent virtually all of geologic time on Earth, including significant events in the development of life on earth as well as recent human events.

Materials:

5 meters of adding machine tape
meter stick

colored pencils

Procedure:

1. Measure as accurately as possible 5 meters of three inch wide cash register tape.
2. Using a meter stick, draw a line through across the middle of the paper from left to right.
3. In the top left corner, make a scale. Label the scale 1 cm= 10 million years.
4. Starting on the left side of the paper measure 5 cm to the right on the line and make a vertical mark. Label this mark with the word – **Present**.
5. From this mark, measure 1 meter to the right on this line and make a vertical mark. Label this mark 1 billion years. Measure and mark each meter after that up to 4 meters of 4 billion years from present.
6. Now measure 60 cm to make the total length of the time line 4.6 meters. Mark and label this distance 4.6 billion years- **The Beginning of Time on Earth**.
7. Label the year and name of each geologic era on your geologic time scale. Using the 1cm = 10 million years, measure the distance to each era from Today by using the following information.

Eras

Cenozoic Era = 65 million years ago = _____ cm from Present

Mesozoic Era = 245 million years ago = _____ cm from Present

Paleozoic Era = 545 million years ago = _____ cm from Present

Precambrian Era = 4.6 billion years ago = _____ cm from Present

8. There is a list of and events in Earth's history listed below. Using the list, your textbook, and the Internet, place these events in the proper place on the timeline. Illustrate each of these with a small drawing or symbol representative of the event using the colored pencils available to you.
9. You may also wish to use colored pencils to depict the geologic eras.

Single-celled life first appears

Earliest land plants

Tyranosaurus Rex!

First amphibians

First birds

Pangea forms

Dinosaurs appear

Mammals appear

First amphibians

Flowering plants appear

Insects appear

Modern humans