

CREATE A TIMELINE OF THE EARTH

Our planet Earth formed about 4.5 billion years ago. That's a really, really long time ago! To help picture it, imagine the entire history of the Earth squeezed into just twelve hours, from noon to midnight. When we think of time in this way, humans have only been around for about a minute!



Dinosaurs did not all live during the same geologic period. *Stegosaurus* became extinct 66 million years before *Tyrannosaurus rex* walked the Earth.



12:00 PM
4.5 billion years ago the Earth formed



11:23 PM
230 million years ago the first dinosaurs appeared



11:59 PM
150,000 years ago modern humans appeared

To describe Earth's vast history, scientists use a geologic timescale. They divide it into long segments of time called eras. Each era is further divided into periods.

Earth events and organisms characterize each era and period. For example, the Mesozoic Era starts after an extinction event that wiped out almost 90% of species on Earth. Dinosaurs then flourished until the end of the Mesozoic Era, which is marked by another major extinction event. Most dinosaurs went extinct but one group of dinosaurs—birds—survived.

Working in a small team, you will create a poster presentation about one of the periods. You can use classroom and library resources, as well as the Internet to research the following information:

1. Landmasses

What did the surface of the Earth look like? Illustrate the arrangement of landmasses and/or continents.

2. Climate

What was the climate like? Was there an ice age? Was it very warm?

3. Earth Events

What major Earth events occurred during the period? Was there widely distributed volcanic activity, an asteroid impact, or the formation of large mountain belts?

4. Organisms

What plant and animal groups lived during the period? What organisms became extinct?

Tips

- As a part of your presentation, illustrate a 12-hour clock and mark the span of the period on the clock. Hint: Each hour corresponds to 375 million years.
- Include photographs of plant and animal fossils or artist renditions of organisms that lived during the period.

ERAS	PERIODS
Cenozoic	Quaternary 2 mya to present
	Tertiary 65-2 mya
Mesozoic	Cretaceous 145-65 mya
	Jurassic 200-145 mya
	Triassic 250-200 mya
Paleozoic	Permian 300-250 mya
	Carboniferous 360-300 mya
	Devonian 420-360 mya
	Silurian 445-420 mya
	Ordovician 490-445 mya
	Cambrian 540-490 mya
Precambrian	Precambrian 4,500-540 mya