



Archean 4,600–2,500 m.y.a.

Earth's formation

The geological time scale

The Earth was formed from a cloud of gas and dust around 4,600 million years ago.

What was the Earth like after it formed?

The Earth's surface was probably molten (hot and liquid) for many millions of years after its formation. The oldest known rocks are about 3,960 million years old.

Why is the Cambrian period important?

During the Precambrian, most living creatures were soft-bodied and they left few fossils. During the Cambrian period, many creatures had hard parts, which were preserved as fossils in layers of rock.

When did living things first appear on Earth?

The oldest known fossils (of microscopic bacteria) are around 3,500 million years old. Primitive life forms may have first appeared on Earth about 3,850 million years ago.

What were the first animals with backbones?

Jawless fishes were the first animals with backbones. They appeared during the Ordovician period. Fishes with skeletons of cartilage, such as sharks, first appeared in the Devonian period.

Proterozoic 2,500–590 m.y.a.

The Archean and Proterozoic eons together occupied 87% of Earth history.

When did plants start to grow on land?

The first land plants appeared in the Silurian period. Plants produced oxygen and provided food for the first land animals, amphibians. Amphibians first appeared in the Devonian period.

When did mammals first appear?

Mammals lived on Earth from at least the start of the Jurassic period. But they did not become common until after the extinction of the dinosaurs.

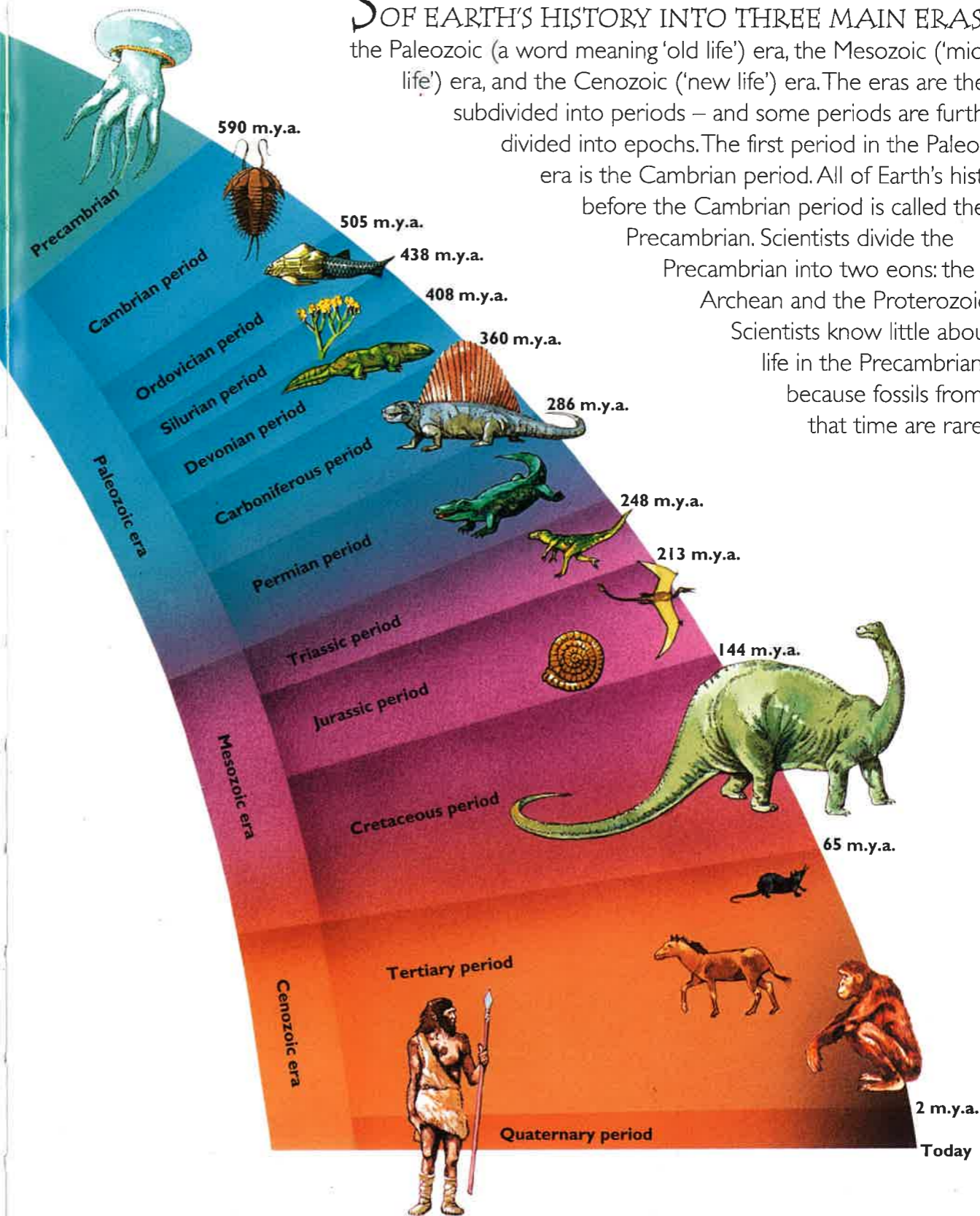
When did people first live on Earth?

Hominids (ape-like creatures that walked upright) first appeared on Earth more than four million years ago. But modern humans appeared only around 100,000 years ago.

The last 590 million years of Earth history are divided into eras and periods. 'M.y.a.' on the diagram means 'millions of years ago'.

How is Earth's history divided up?

SCIENTISTS DIVIDE THE LAST 590 MILLION YEARS OF EARTH'S HISTORY INTO THREE MAIN ERAS: the Paleozoic (a word meaning 'old life') era, the Mesozoic ('middle life') era, and the Cenozoic ('new life') era. The eras are then subdivided into periods – and some periods are further divided into epochs. The first period in the Paleozoic era is the Cambrian period. All of Earth's history before the Cambrian period is called the Precambrian. Scientists divide the Precambrian into two eons: the Archean and the Proterozoic. Scientists know little about life in the Precambrian, because fossils from that time are rare.



Why did the dinosaurs become extinct?

THE DINOSAURS FIRST APPEARED ON EARTH DURING THE TRIASSIC PERIOD. They became the dominant animals during the Jurassic period, but at the end of the Cretaceous period, 65 million years ago, they became extinct. Scientists still argue about why they disappeared. But many experts now believe that around 65 million years ago an enormous asteroid struck the Earth. The impact threw up a huge cloud of dust, which blocked out the sunlight for a long time. Land plants died and so the dinosaurs starved to death.