Prehistoric Times

Grades 4-6

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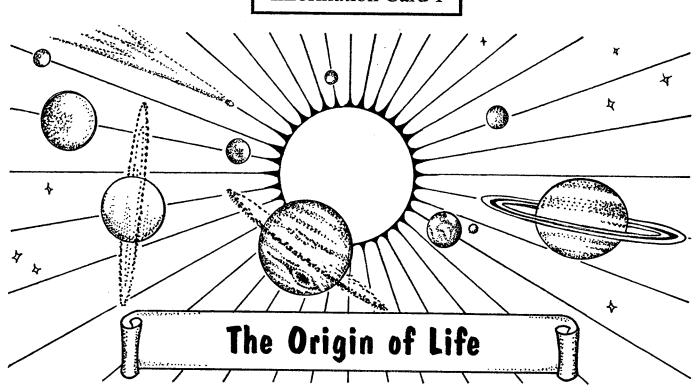




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Information Card 1

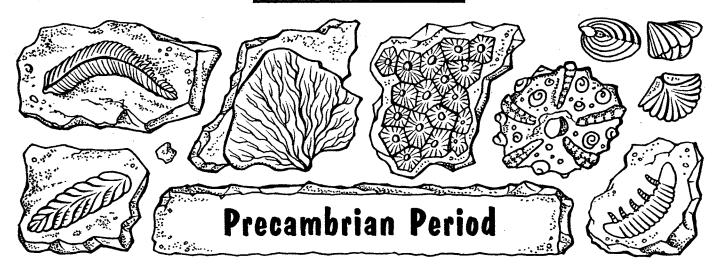


The solar system was formed nearly **one billion** years ago. Our planet, Earth, is the only planet in the solar system that is known to have life on it. Life as we know it must have water and oxygen. At first, there was only simple life forms, such as bacteria and algae. Gradually, more varied and complex life **evolved**.

We learn about past forms of life from *fossils*. Fossils are the remains of plants and animals that died millions of years ago. These are usually found in rocks that have been buried under other layers of rock, or in the sea.

When a fossil is found, *radio-active dating* is used to determine the age of the rock or fossil. This complicated process is very useful to scientists.

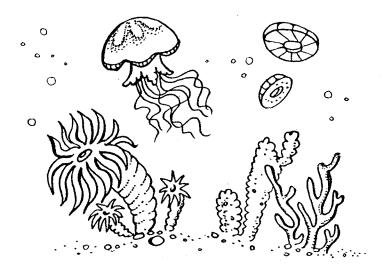
Information Card 2



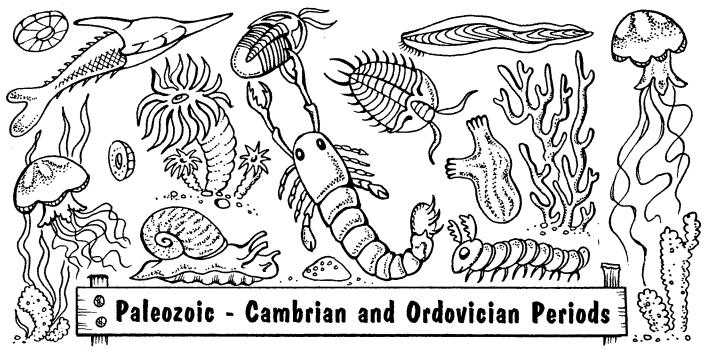
The first fossils from the Precambrian period are 600 million years old. These fossils indicate that the earliest life forms had **soft bodies** without skeletons.

Stromatolites were mounds of single-celled plants that lived together in colonies in the water. Later, simple life forms evolved and swam freely in the seas.

Some of the first, more, complex *animals* were: jellyfish, sponges, worms, sea anemones, sea urchins, sea pens and dickinsonia. Most of these soft bodied creatures had a thin layer of harder tissue acting as support for its body.



Information Card 3



During the Cambrian era, there were floods that raised the water level of the seas. New varieties of sea life were created. For the first time, animals with hard, protective shells swam in the seas.

There were snails, brachiopods, lamp shells, lancelets, coral and worms. **Trilobites**, an important group of animals from this period, had tough **skeletons** on the outside (like lobsters) of their bodies. They had many legs and could run along the bottom of the sea or swim quickly.

During the Ordovician period, the seas continued to be filled with a variety of crawlers and swimmers. The most notable life forms from this period were the **nautiloids**. This shelled animal is related to todays octopus. Other forms of life were: sea lily, seaweed, brachipods, coral, trilobites, snails, crabs, plankton, nektons, and benthos,

Information Card 4



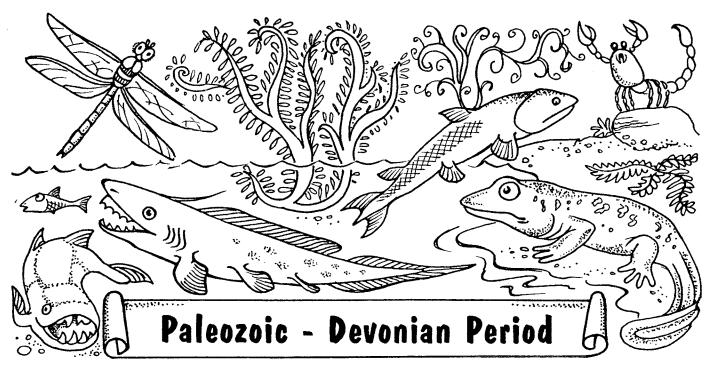
The most significant development during the Silurian period was that creatures ventured out of the water and onto the land. Some scientists theorize that the sea may have been getting too crowded for the growing number of life forms. As a result, certain plants and animals *adapted* to life on land.

One adaptation was *tougher waterproof skin* to protect them from drying out under the Sun's bright rays.

Another adaptation was the development of *lungs* instead of gills. This allowed the animals to take oxygen from the air.

Among the first animals to leave the water were the millipedes and scorpions. The first land plants were rhynia and asteroxylon. All of these stayed close to the water's edge.

Information Card 5



The Devonian period, known as the "*Age of Fishes*", was 345 to 395 million years ago. Some of the fish had jaws, armored heads, fins or skeletons of bone or cartilage. The first sharks appeared during this time.

Some fish had strong enough fins to support their weight. When fish developed lungs they were able to survive in the mud when their ponds dried up. The first amphibians, ichthyostegas, crawled through the mud with the help of their strong backbone (vertebrate).

The first tree-sized plants appeared during this time.

