



# The Archaean

By

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The Archaean time followed the Hadean. The earth continued to cool. The crust got thicker. Volcanoes continued to erupt, but not as much. The earth had land, water, and a sky filled with an atmosphere. But we would not recognize any of these things! There were no living things anywhere on earth. And none of the plants or animals that we know today could have survived at that time, The land was all rock. The oceans were probably more like pea soup than like the oceans of today. The air would have been poisonous to most living things that we know.

There were things happening during this time that set the stage for life to develop. There was weather. Rain and wind beat against the rock. Slowly over millions of years the forces of weather broke up parts of the rock. Some elements of the earth's crust were dissolved by the water and carried into the oceans.

In the oceans were many chemicals. They were elements that could be dissolved by water. They were washed from the skies and the rocks and carried into the oceans. Some of these elements liked to be together. They created new chemicals when they mixed. Some elements did not like each other and would not mix together.

The oceans of this time were filled with chemical experiments. The elements were combining to create new chemicals and those chemicals mixed with others to create still more combinations. This of course went on for millions and millions of years.

These chemical experiments eventually created the things that living things are made from. Nobody knows how but during the Archaean time there were living things. Not anything you would recognize. In fact you would need a microscope to see them at all. They are called bacteria. You would know them as germs. Not all bacteria make us sick. During the Archaean a very special bacteria grew. It is called cyanobacteria.

The thing that was so special about cyanobacteria was that it could make its food from sunlight, like plants do today. When cyanobacteria made its food it had some stuff left over that it couldn't use. It had to get rid of this stuff and just kind of squeezed it out of their bodies. The stuff that was waste for the cyanobacteria was oxygen. As you probably know oxygen is what we must breathe to stay alive!

The cyanobacteria were very successful living in the arcane time. There got to be more and more of them.

They continued to create oxygen that would eventually fill the atmosphere.