



The earth is very old, but like all of us there was a time when it wasn't here.

Scientists believe that one hundred billion years ago, the solar system we live in was nothing but cold dust particles swirling around in space.

Gravity, the same thing that keeps our feet on the ground, reacted these particles to each other, and they clumped together to form large masses of gas and rock that eventually became the planets and the sun. When these particles came together they became white-hot from rubbing against each other and the rock particles melted together.

When the earth was young, it was a large mass of molten rock and gasses. The rocks eventually cooled down, but for a very long time the Earth was a red-hot planet bursting with volcanoes and lava. It wasn't until about 3.8 billion years ago that the Earth cooled down enough for oceans and an atmosphere to form, and these were the first steps toward life beginning on our planet.

All of that molten rock is still with us underneath many miles of cool and stable crust, but it still occasionally comes to the surface. This is what is happening when volcanoes erupt.

In the box below, draw an idea of what you think the Earth might have looked like when it was still very young.

