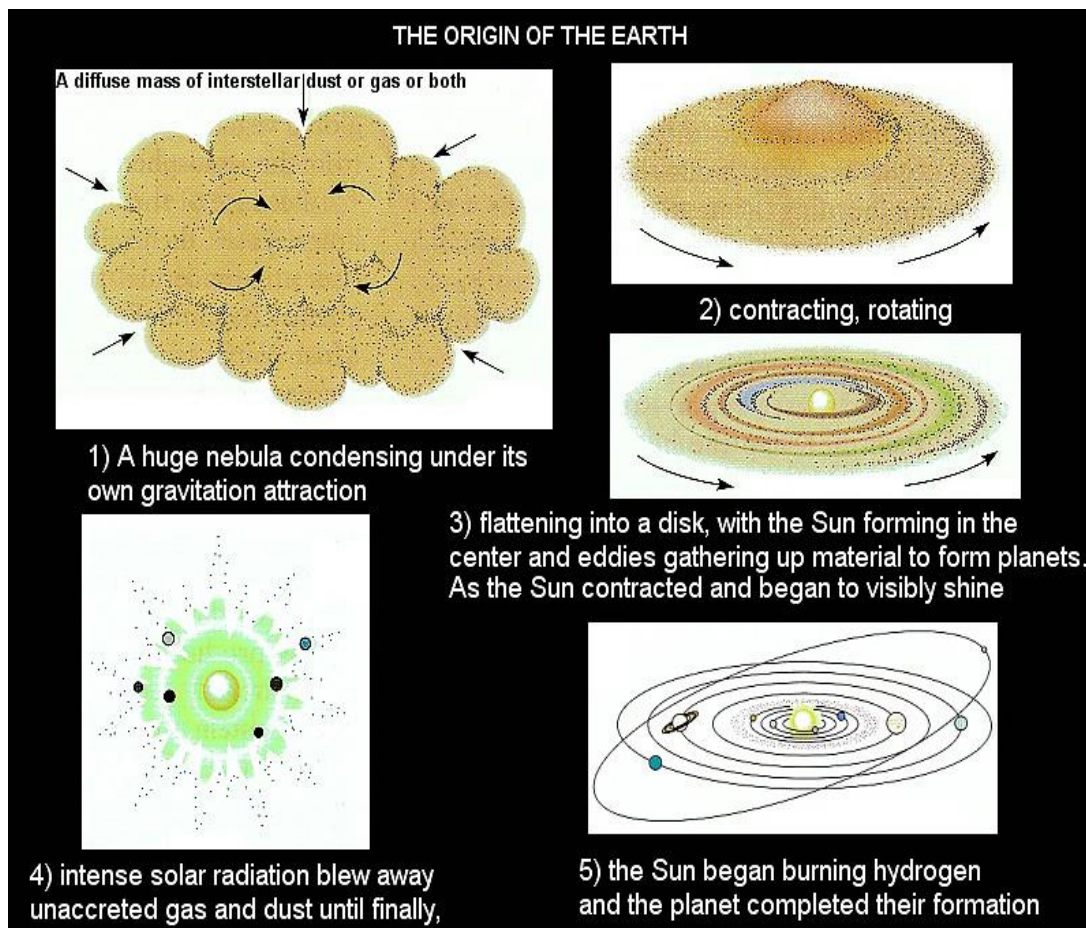


The origins of the Earth - WHY? - Jean Baptiste – 1S

The origins of the Earth

Our planet is very old: it was formed about 4.54 billion years ago and life appeared one billion years ago. But how did our Earth form? If you have interest in history or if you just want to develop your culture, then you can discover the origins of the blue planet by reading this article.

Our universe was created by the Big-Bang, fourteen billion years ago. The Big-Bang was an explosion which resulted in formation of rocks, dust and gas: it formed dust clouds. Then, these clouds, with gravity gave birth to the Earth. The picture below illustrates this explanation:



Its composition

Earth is a terrestrial planet; it means that it's a rocky body, which is primarily made of rocks and metals. In general, the terrestrial planets have three concentric casings: a core, a mantle and an earth's crust. First of all, **the core**. There are two types of core: the inner core and the outer core. The inner core is essentially made up of iron (80%) and nickel. The temperature is very high: 5100 degrees C!!! It's incredible, but the inner is a solid!!! For the outer core, it contains the same materials: iron and nickel. However, iron and nickel metals are liquid! The outer core is very important to earth because it creates a magnetic field (a protective barrier around the earth that shields us from the sun's damaging solar wind)..

Secondly, **the mantle** is the layer between the crust and the outer core. The mantle represents 80% of the volume of the Earth and 65% of its mass.

The last layer is called **the crust** which is the superficial and solid part of the Earth. The crust varies from around 5km thick (in the ocean floor) to around 70km thick (the land where we live is called the continental crust). Silica and alumina are the main elements of the continental crust's rocks.

