Volcanoes

Hot molten rock and gases escape from the inside of the planet through cracks in the Earth's surface. We call these places volcanoes.

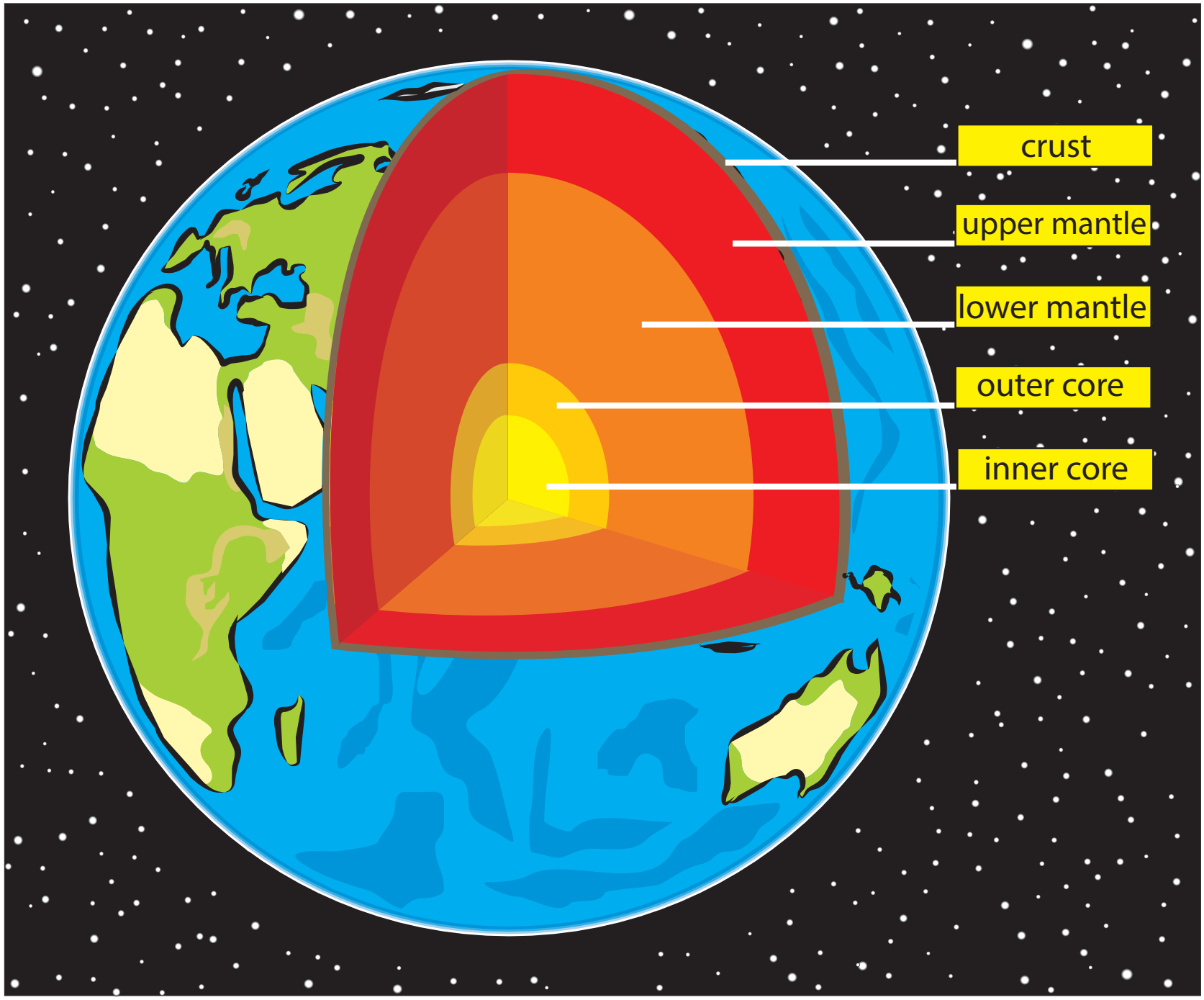
The Earth's surface is made up of rocky 'plates' that fit together like a jigsaw. The pieces are constantly moving at a slow rate. Some plates are pushing together, some are pulling apart. The edges where plates meet are often under a great deal of pressure. These are the places where volcanoes form.

Volcanoes can stay quiet for hundreds of years before erupting violently. Some volcanoes are constantly erupting. Others are active for many thousands of years then eventually stop erupting altogether.

Volcanoes shape the surface of the planet. They can create new islands of land in the ocean. They can build mountains. They can even blow the top off a mountain!

Cross-Section of the Earth

Where does lava come from?



Magma is molten rock, contained in large chambers, deep under the ground. When it reaches the surface it is called lava. The lava of this volcano flows quickly, like a red hot river.

Lava flow in Hawaii. The red-hot lava of this volcano is thick and moves slowly, edging its way across the land. The lava turns a dark colour as it cools. Eventually it will solidify into a hard wall of rock.

Some volcanoes spew out clouds of toxic volcanic ash. The ash clouds from large eruptions can fill the atmosphere for many weeks, causing disruption to flight schedules in the area.

In some parts of the world lava flows directly into the sea. There are many volcanoes that are located on the ocean floor. Sometimes new islands form from these volcanoes. This picture shows lava flowing into the sea from a volcano in Hawaii.

A crater lake forms when the caldera of a volcano fills with water. This is the crater lake of the Irazu volcano in Costa Rica. The water looks green because it is infused with volcanic gases like sulphur.