

IGNEOUS ROCK

There are hundreds of different kinds of rocks on the Earth, but they all can be classified into three main groups: igneous, sedimentary and metamorphic rocks. Rocks form in different ways, which causes them to have a different look, feel and composition. **Igneous rocks** are the most common on Earth.

Igneous rock is a type of rock that has formed from **lava**. The word igneous comes from the Latin word *igneus*, which means 'of fire'.

When a volcano erupts, melted rock spews to the surface as lava. The red-hot lava cools quickly on the surface of the Earth and solidifies into rock. These are called **extrusive igneous rocks**. Basalt is a common type of extrusive igneous rock. Igneous rock can also form beneath the Earth's surface. This happens when **magma** (molten rock) cools and solidifies over millions of years, before being pushed to the surface or being uncovered by erosion. These are called **intrusive igneous rocks**. Granite is a common type of intrusive igneous rock.

Igneous rocks are the most common type of rock, making up almost two-thirds of the Earth's crust. Geologists have discovered more than 700 types of igneous rock.



Cradle Mountain in Tasmania is composed of delorite, an intrusive igneous rock. The rock has been exposed after the surface material has eroded away.

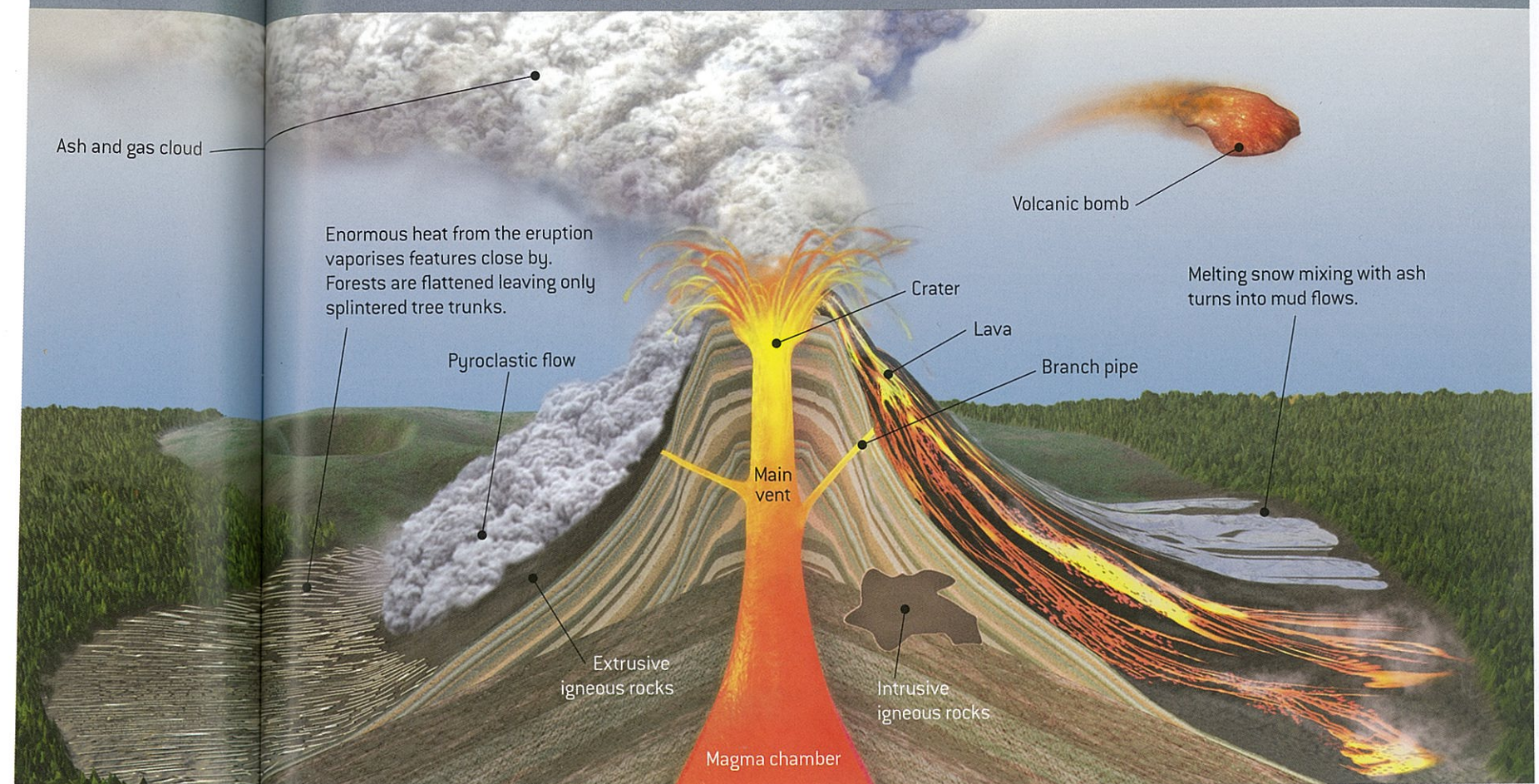


Basalt is the most common type of extrusive igneous rock. Large crystals don't form in basalt because the lava cools so quickly.



Granite is an intrusive igneous rock. These very hard rocks are good for use in building, such as kitchen benchtops.

CROSS-SECTION OF A VOLCANIC ERUPTION



LOOK IT UP

extrusive igneous rock rock formed when lava from a volcanic eruption cools quickly on the Earth's surface

igneous rock a type of rock formed from lava on the surface or magma beneath the ground

intrusive igneous rock rock formed when magma cools and solidifies slowly beneath the Earth's surface

lava melted rock (magma) that has reached the surface when a volcano erupts

magma molten rock beneath the Earth's surface

CHECK IT OUT

- 1 List the three main types of rock.
- 2 How are igneous rocks formed?
- 3 Which igneous rocks form on the surface of the Earth and why are they different to those that form under the Earth?
- 4 How does magma escape onto the Earth's surface?
- 5 Pumice forms when gas-filled lava cools very quickly. How does it get its holes and what special properties does it have?
- 6 Look at the photograph of granite opposite.
 - a What special properties does granite have that makes it useful?
 - b Why is granite formed from magma and not lava?

Pumice is an extrusive igneous rock. It is filled with so many tiny holes (formed by escaping hot gases) that it is very light and floats on water.

