

Violent Earth

Introduction

Our planet is always on the move, not just in space, but also in terms of the bit that we live on!

The Earth beneath our feet is constantly shifting and moving – sometimes ever so slowly, but ever so surely, sometimes swiftly and violently with catastrophic and immediate results.

The movement of the Earth's surface, imperceptible to most of us most of the time, continues today as it has continued for millions of years. As the planet's surface shifts, at the same time it creates and destroys, forming majestic mountains and seemingly bottomless crevasses. Humankind can wonder at these 'creations' the movement of the Earth has brought about, and yet the same process can cause appalling destruction and decimate populations.

This unit examines in three separate lessons the processes of plate tectonics, earthquakes and volcanoes. The last lesson of the unit investigates how our violent earth impacts upon the lives of humans both negatively and, perhaps surprisingly, in a positive way.

Lesson 1 *Plate tectonics* – The Earth is made up of distinct layers, the uppermost of which, the crust, is not one solid piece of land.

Lesson 2 *Volcanoes* – How volcanoes are formed and where they are likely to be found.

Lesson 3 *Earthquakes* – Why do earthquakes occur and how are they measured?

Lesson 4 *Impact* – The environmental and human impact of volcanoes and earthquakes and how populations have adapted to cope with them.

This unit can be taught as a stand-alone unit or as part of the larger package incorporating some of or all of the remaining units – Planet Earth, Dynamic Earth and Future Earth.