

Future Earth

Introduction

The Earth has existed for billions of years and has served humankind more than adequately throughout our history. But what of the future?

Can we assume that the planet is an endless provider of all of our material needs? If our resources are finite, how long will it be before we can expect them to disappear? What can be done to slow or even stop the decline of the planet's resources? Can human ingenuity harness 'new' energy technologies to replace the old?

This unit attempts to find the answers to some of these questions and to raise the awareness of the generation who are most likely to be affected by the Earth's dwindling supplies of fossil fuels, rocks and fresh, drinkable water.

It is this generation of schoolchildren who have been allocated a resources problem that they will have to deal with as adults and, crucially, find real and achievable answers to for the sake of future generations.

This unit examines the issues of how dependent humans are on rocks, finite supplies of fossil fuels and how renewable resources need to be developed to meet our energy needs. All of these are examined from a Northern Ireland perspective. Finally, water supply is studied as resource threatened by pollution and expanding populations.

- Lesson 1** *Rocks in our lives* – Developing an understanding of just how much of our material world is derived from the rocks under our feet.
- Lesson 2** *Fossil fuels* – Our reliance upon fossil fuels cannot continue indefinitely. Appreciate the difference between renewable and non-renewable resources.
- Lesson 3** *Renewables* – Become aware of the variety of renewable energy resources but also understand that they are not always without environmental penalties.
- Lesson 4** *Water, water* – The challenge in making sure that everyone has enough clean water now and also in the future.

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, Violent Earth and Dynamic Earth.