

# Draft National Unit Specification



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**Unit title:** Environmental Science: Earth's Resources (National 4)

**SCQF:** level 4 (6 SCQF credit points)

**Unit code:** to be advised

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## Unit outline

The general aim of this Unit is to develop skills of scientific inquiry, investigation, analytical thinking, and knowledge and understanding in the context of the Earth's resources. Learners will use a variety of approaches and will consider applications of the Earth's resources on our lives, as well as the wider implications. Learners will research issues, apply scientific skills and communicate information related to their findings, which will develop skills of scientific literacy.

Learners who complete this Unit will be able to:

- 1 Draw on knowledge, understanding and skills to investigate a topic/process related to the Earth's resources
- 2 Draw on knowledge, understanding and skills to explore an aspect of the Earth's resources in real-life situations
- 3 Use knowledge and understanding of the Earth's resources

This Unit is a mandatory Unit of the Environmental Science (National 4) Course and is also available as a free-standing Unit. The Unit Specification should be read in conjunction with the *Unit Support Notes* which provides advice and guidance on delivery, assessment approaches and development of skills for learning, skills for life and skills for work. Exemplification of the standards in this Unit is given in the *National Assessment Resource*.

The Added Value Unit Specification for the Environmental Science (National 4) Course gives further mandatory information on Course coverage for learners taking this Unit as part of the Environmental Science (National 4) Course.

## Recommended entry

Entry to this Unit is at the discretion of the centre. However, learners would normally be expected to have attained the skills, knowledge and understanding required by one or more of the following or equivalent qualifications and/or experience:

- ◆ Access 3 Biology Course or relevant component Units
- ◆ Access 3 Environmental Science Course or relevant component Units
- ◆ Access 3 Geography Course or relevant component Units
- ◆ Access 3 Science Course or relevant component Units

In terms of prior learning and experience, relevant experiences and outcomes may also provide an appropriate basis for doing this Unit. Further information on relevant experiences and outcomes will be given in the *Unit Support Notes*.

## **Equality and inclusion**

This Unit Specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence. For further information please refer to the *Unit Support Notes*.

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# Standards

## Outcomes and assessment standards

### Outcome 1

The learner will:

- 1 Draw on knowledge, understanding and skills to investigate a topic/process related to the Earth's resources, by:**
  - 1.1 Identifying, with support, an aim for an investigation/experiment
  - 1.2 Describing the key features of the topic/process
  - 1.3 Planning and designing an investigation/experiment to test an aim/purpose
  - 1.4 Carrying out an investigation/experiment to test an aim/purpose
  - 1.5 Recording measurements and observations appropriately
  - 1.6 Processing the results
  - 1.7 Drawing a simple, valid conclusion
  - 1.8 Commenting on the aim/purpose/approach and suggesting an improvement

### Outcome 2

The learner will:

- 2 Draw on knowledge, understanding and skills to explore an aspect of the Earth's resources in real-life situations, by:**
  - 2.1 Gathering information from at least two sources to describe an aspect of the Earth's resources
  - 2.2 Describing the application of this aspect of the Earth's resources in a real-life situation

### Outcome 3

The learner will:

- 3 Use knowledge and understanding of the Earth's resources, by:**
  - 3.1 Giving straightforward descriptions of the processes, systems and concepts related to the Earth's resources
  - 3.2 Solving straightforward, given problems in the Earth's resources

## Evidence Requirements for the Unit

Assessors should use their professional judgement, subject knowledge and experience, and understanding of their learners, to determine the most appropriate ways to generate evidence and the conditions and contexts in which they are used.

Evidence can be drawn from a variety of sources and presented in a variety of formats.

Evidence may be presented for individual Outcomes or gathered for the Unit as a whole, through combining assessment holistically in a single activity. If the latter approach is used, it must be clear how the evidence covers each Outcome.

The Unit will cover an understanding of concepts including:

- ◆ Earth's systems and their interactions, including the geosphere, the hydrosphere, the biosphere and the atmosphere
- ◆ substances that make up the Earth's surface

Exemplification of assessment will be provided in the *National Assessment Resource*. Advice and guidance on possible approaches to assessment is provided in the *Unit Support Notes*.

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# Development of skills for learning, skills for life and skills for work

It is expected that learners will develop broad, generic skills through this Unit. The skills that learners will be expected to improve on and develop through the Unit are based on SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work* and drawn from the main skills areas listed below. These must be built into the Unit where there are appropriate opportunities.

## 1 Literacy

1.1 Reading

## 2 Numeracy

2.1 Number processes

2.2 Money, time and measurement

2.3 Information handling

## 4 Employability, enterprise and citizenship

4.6 Citizenship

## 5 Thinking skills

5.3 Applying

5.4 Analysing and evaluating

Amplification of these is given in SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work*. The level of these skills should be at the same SCQF level of the Unit and be consistent with the SCQF level descriptor. Further information on building in skills for learning, skills for life and skills for work is given in the *Unit Support Notes*.

## Administrative information



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**Published:** August 2011 (draft version 1.0)

**Superclass:** to be advised

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### History of changes

Version	Description of change	Authorised by	Date

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Note: readers are advised to check SQA's website: [www.sqa.org.uk](http://www.sqa.org.uk) to ensure they are using the most up-to-date version of the Unit Specification.