

Draft National Unit Specification



Unit title: Resources, Forces and Energy (Access 2)

SCQF: level 2 (6 SCQF credit points)

Unit code: to be advised

Unit outline

The general aim of this Unit is to develop the learner's awareness, through practical activities, of Earth's resources, simple forces, and the energy used to make things work. Through practical activities, learners will explore the properties and use of Earth's resources, such as air, water, oil and wood. Learners will also develop their awareness of forces, including pushing and pulling, and the energy used to make everyday objects work. Wind, electrical and battery power might be studied. By exploring science through practical activities, learners will begin to develop their scientific literacy.

Learners who complete this Unit will be able to:

- 1 Carry out practical activities to explore Earth's resources
- 2 Carry out practical activities to explore forces and energy

This Unit is a mandatory Unit of the Access 2 Science in the Environment Course and is also available as a free-standing Unit. The Unit Specification should be read in conjunction with the *Unit Support Notes* which provide 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*.

Recommended entry

Entry to this Unit is at the discretion of the centre. 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*.

Standards

Outcomes and assessment standards

Outcome 1

The learner will:

1 Carry out practical activities to explore Earth's resources by:

- 1.1 Observing and recording the properties of Earth's resources
- 1.2 Identifying how Earth's resources are used in everyday life

Outcome 2

The learner will:

2 Carry out practical activities to explore forces and energy by:

- 2.1 Observing and recording how forces can affect everyday objects
- 2.2 Identifying how everyday objects work and the type of energy they use

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 is expected to be generated from practical activities provided by the teacher/lecturer. Evidence can be presented in a variety of formats, such as written, oral, or pictorial, and may be gathered using the learner's usual means of communication.

For Outcome 1, evidence will include:

- ◆ recorded observations of the properties of at least one Earth resource, such as: water, oil, air, wood, or metal. Observations could be done using one or more of the senses and may include, for example: strength, texture, smell, colour, and weight
- ◆ identifying how at least one Earth resource can be used in different ways in everyday life. This could include, for example: fuel, furniture, buildings, equipment, and cooking

For Outcome 2, evidence will include:

- ◆ recorded observations of how two simple forces, such as pushing, pulling, squashing, and stretching, can affect everyday objects
- ◆ identifying how everyday objects work, such as watches, bicycles, toys, household appliances, etc, and the forms of energy they use, for example chemical, electrical, mechanical, and radiant

It is expected that learners will receive support throughout the delivery of this Unit.

There are many ways in which the requirements of the Unit can be generated. Evidence may be gathered using different assessments and more than one context for each Outcome.

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*.

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.

2 Numeracy

2.3 Information handling

5 Thinking skills

5.1 Remembering

5.3 Applying

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



Published: December 2011 (draft version 1.0)

Superclass: to be advised

History of changes

Version	Description of change	Authorised by	Date

© Scottish Qualifications Authority 2011

This specification may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged. Additional copies of this Unit can be downloaded from SQA's website at www.sqa.org.uk.

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