

National Unit Specification: general information

UNIT	Geology, People and Environment (Access 3)
NUMBER	D245 09
CLUSTER	Geology (Access 3)

SUMMARY

This unit seeks to allow candidates to develop awareness of the uses of geology. Candidates will acquire knowledge and understanding of: how useful materials are formed, found, extracted and used; the use and misuse of water; how geological studies help in civil engineering; problems caused by mining and quarrying; and conservation and proper use of resources. Skills of problem solving, observation, recording and communication will be developed. The unit has a strong environmental bias which will enhance the development of caring and thoughtful attitudes towards problems of resource usage.

OUTCOMES

- 1 Demonstrate knowledge and understanding related to the uses of geology.
- 2 Solve problems related to the uses of geology.

RECOMMENDED ENTRY

Entry is at the discretion of the centre.

CREDIT VALUE

1 credit at Access 3.

Administrative Information

Superclass:	RF
Publication date:	November 1999
Source:	Scottish Qualifications Authority
Version:	04

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National Unit Specification: general information (cont)

UNIT Geology, People and Environment (Access 3)

CORE SKILLS

This unit gives automatic certification of the following:

Complete core skills for the unit	None	
Core skills components for the unit	Critical Thinking	Acc 3
	Using Graphical Information	Acc 3

Additional information about core skills is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, 1999).

National Unit Specification: statement of standards

UNIT Geology, People and Environment (Access 3)

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Demonstrate knowledge and understanding related to the uses of geology.

Performance criteria

- (a) The ways in which ores, fossil fuels and construction materials are formed, found and extracted are accurately described.
- (b) The processes involved in the water cycle are accurately described.
- (c) The major sources of water are accurately described.
- (d) The environmental effects of resource extraction and waste disposal are accurately described.
- (e) The ways in which geological studies can help in civil engineering are accurately described.
- (f) The use, misuse and conservation of physical resources are correctly explained.

Evidence requirements

Evidence should be produced which demonstrates successful achievement of all of the above performance criteria. Such evidence may be generated by any appropriate means, for example, written tests, oral tests or observation by the teacher/lecturer.

OUTCOME 2

Solve problems related to the uses of geology.

Performance criteria

- (a) Relevant information is selected, presented and processed in an appropriate way.
- (b) Valid conclusions are drawn and explanations given are supported by evidence.

Evidence requirements

Evidence should be produced which demonstrates successful achievement of all of the above performance criteria, including the interpretation and communication of graphical information at the appropriate level. With reference to PC (b), the candidates' answers must show that the main features of the situation have been recognised and a suitable approach used to deal with it. Such evidence may be generated by any appropriate means, for example, written tests, oral tests, or observation by the teacher/lecturer.

National Unit Specification: support notes

UNIT Geology, People and Environment (Access 3)

This part of the unit specification is offered as guidance. The support notes are not mandatory.

While the time allocated to this unit is at the discretion of the centre, the notional design length is 40 hours.

Information on the content and context for this unit, and guidance on learning and teaching approaches, is given in the tables in the cluster details.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Outcomes 1 and 2 may be assessed by any appropriate means (eg, continuous assessment, end of unit test). Whatever style of assessment is adopted, the following approximate percentage mark allocations would be appropriate. (Note that the numbers given express a ratio of marks allocated. Candidates would not be expected to undertake test items with the actual mark allocations shown.)

Outcome 1	(knowledge and understanding)	60%
PC		
(a)	Ores, fossil fuels and construction materials.	
	Ores.	(8)
	Fossil fuels.	(8)
	Construction materials.	(8)
(b)	Water cycle.	(4)
(c)	Sources of water.	(6)
(d)	Environmental effects of resource extraction and waste disposal.	(6)
(e)	Geology and civil engineering.	(8)
(f)	Use, misuse and conservation of resources.	(12)
Outcome 2	(problem solving)	40%
PC		
(a)	Selecting, presenting and processing information.	(20)
(b)	Drawing conclusions and giving explanations.	(20)

Test items should be constructed to allow candidates to generate evidence relating to the performance criteria as follows:

- (a) Selecting, presenting and processing information
 - Sources of information include text; simple tables, diagrams, charts and graphs; numerical information
 - Formats of presentation include written or oral responses; simple tables, diagrams, charts and graphs
 - Calculations include totals, differences, averages and simple percentages.
- (b) From information given, candidates should be able to draw simple conclusions with explanations supported by the evidence.

National Unit Specification: support notes (cont)

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SPECIAL NEEDS

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment and Certification Arrangements for Candidates with Special Needs/Candidates whose First Language is not English* (SQA, 1998).