

National Unit Specification: general information

UNIT Minerals and Rocks (Intermediate 2)

NUMBER D8XK 11

COURSE Geology (Intermediate 2)

SUMMARY

This unit seeks to allow candidates to acquire detailed knowledge and understanding of minerals, rocks, and rock-forming processes. Problem solving skills will be enhanced. Through the use of practical work, candidates' skills of observation, manipulation, recording and communication will be developed. The study of rocks in the field would enable candidates to develop a caring attitude towards the local environment.

OUTCOMES

- 1 Demonstrate knowledge and understanding related to rocks and minerals.
- 2 Solve problems related to rocks and minerals.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained the Intermediate 1 Geology course or its component units. It would, however, be possible for able candidates to enter the course with no prior knowledge of geology. Previous experience of a science or Geography at Intermediate 1 or Intermediate 2 or equivalent would be advantageous.

CREDIT VALUE

1 credit at Intermediate 2.

Administrative Information

Superclass: RF

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National Unit Specification: general information (cont)

UNIT Minerals and Rocks (Intermediate 2)

CORE SKILLS

This unit gives automatic certification of the following:

Complete core skills for the unit	None	
Additional core skills components for the unit	Critical Thinking	Intermediate 2
	Using Graphical Information	Intermediate 2

Additional information about core skills is published in the *Catalogue of Core Skills in National Qualifications* (SQA, 2001).

National Unit Specification: statement of standards

UNIT Minerals and Rocks (Intermediate 2)

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 rocks and minerals.

Performance criteria

- (a) Rocks are correctly classified with respect to mineralogy, texture and mode of formation.
- (b) The description of the modes of formation of igneous, sedimentary and metamorphic rocks is correct.
- (c) The description of the modes of formation of rock structures is correct.

Evidence requirements

Evidence is produced from a closed book test which demonstrates successful achievement of all of the above performance criteria.

OUTCOME 2

Solve problems related to rocks and minerals.

Performance criteria

- (a) Relevant information is selected and presented in an appropriate format.
- (b) Information is accurately processed using calculations where appropriate.
- (c) Valid conclusions are drawn and explanations given are supported by evidence.
- (d) Predictions and generalisations are made based on the available evidence.
- (e) The sequence of formation of geological structures is correctly established from cross-cutting and superposed relationships.

Evidence requirements

Evidence is produced from a closed book test 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 PCs (c) and (d), the candidate's answers must include valid conclusions and explanations based on an evaluation of the supporting evidence.

National Unit Specification: support notes

UNIT Minerals and Rocks (Intermediate 2)

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.

Guidance on the content and context for this unit, and on learning and teaching approaches, is given in the table in the Content section of the course details.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Outcomes 1 and 2 will be assessed by means of an integrated end of unit assessment. The end of unit assessment has no specified mark allocation. However, the following approximate percentage mark allocations are recommended. (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)	Classification of rocks.	(8)
(b)	Formation of igneous, sedimentary and metamorphic rocks.	
	Igneous rocks.	(10)
	Sedimentary rocks.	(10)
	Metamorphic rocks.	(8)
(c)	Formation of rock structures.	(24)
Outcome 2	(problem solving)	40%
PC:		
(a)	Selecting and presenting information.	(4)
(b)	Processing information.	(8)
(c)	Drawing conclusions and giving explanations.	(14)
(d)	Making predictions and generalisations.	(6)
(e)	Establishing the sequence of formation of geological structures.	(8)

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; tables, diagrams, charts and graphs; numerical information.
 - Formats of presentation include written responses; tables, diagrams, charts and graphs.
- (b) Calculations include averages, ratios and percentages.
- (c) From information given, candidates should be able to draw conclusions with explanations supported by using relevant evidence and developing an appropriate approach.
- (d) From given situations, candidates should be able to make predictions and generalisations eg by predicting viscosity of a lava from the type of volcano.
- (e) From information given, usually in graphical form, candidates should be able to determine the sequence of the formation of various geological structures.

National Unit Specification: support notes

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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 Arrangements* (SQA, 2001).