

National Unit Specification: general information

UNIT Investigating Volume in Familiar Situations (Access 1)

CODE DM56 07

SUMMARY

This unit is designed principally for candidates developing skills in a supported learning environment. This unit provides opportunities for candidates to use and understand vocabulary in volume and in measuring and ordering activities.

OUTCOMES

Investigate volume in familiar situations

RECOMMENDED ENTRY

Entry to this unit is at the discretion of the centre, and as this is intended as an introductory unit, no prior knowledge or experience is required.

CREDIT VALUE

1 credit at Access 1 (6 SCQF credit points at SCQF level 1*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Administrative Information

Superclass: HD

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National Unit Specification: statement of standards

UNIT Investigating Volume in Familiar Situations (Access 1)

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

Investigate volume in familiar situations.

Performance Criteria

- a) Describe familiar containers correctly using (full/empty, more/less)
- b) Order familiar containers accurately in relation to volume
- c) Classify familiar containers correctly as holding more or less

EVIDENCE REQUIREMENTS FOR THIS UNIT

Written and/or oral and/or performance evidence to show that the candidate can:

- a) from two possibilities, select the correct word full/empty to describe familiar containers
- b) order three containers accurately in relation to their capacity
- c) classify familiar containers as holding more/less

National Unit Specification: support notes

UNIT Investigating Volume in Familiar Situations (Access 1)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact 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

In order to provide a meaningful learning experience, this Unit should be integrated into everyday situations wherever possible where the candidate is exposed to a variety of contexts for using measurement. These can be within the classroom but learning can be further enhanced through educational visits in the community to the supermarket, petrol station, swimming pool, park and the hairdressing salon. These may provide stimulating settings to explore measurement and to consolidate the vocabulary used for measurement..

A candidate who successfully completes this unit may progress to one or more of the Access 1 Mathematics units:

DM58 07 Recognising Number

DM59 07 Using Mathematics to Handle Information

DM57 07 Problem Solving in Mathematics

DM54 07 Investigating Length in Familiar Situations

DM55 07 Investigating Weight in Familiar Situations

D9EV 07 Recognising Time

D9ET 07 Handling Money

or to the Derived Access 1 Mathematics units:

D3K2 07 Using Mathematics in Everyday Situations 1

For further information on progression see Appendix 1.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Candidates should have the opportunity to work individually, in pairs or in small groups depending on the activity. In order to fully explore the concept of measurement, opportunities should be created for experiential learning, where candidates work practically, in real life situations, with concrete objects and use measurement vocabulary to describe everyday things. The ordering of familiar objects can be carried out as a group activity where pupils are encouraged in decision making, using measurement vocabulary in peer discussion.

National Unit Specification: support notes (cont)

UNIT Investigating Volume in Familiar Situations (Access 1)

Volume: The concept of volume, and knowledge of volume vocabulary, may be explored through water activities, pouring juice, filling measuring jugs up to the 1 litre mark. Familiar containers can be described as full/empty and contents compared using more/less, most/least. A labelled (full/empty) table top display could be arranged with common containers. Cans, individual small plastic bottles, cartons for soft drinks, plastic bottles for soft drinks and mineral water, milk cartons, bleach, washing up liquid, fabric conditioner, cleaning fluid, shampoo, conditioner, nail polish, and eye drop containers, can all be handled and discussed in terms of holding more or less, or most/least.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Candidates should be allowed to use their normal mode of communication while undertaking this assessment. This Unit can be assessed in a variety of ways in order to cater for individual candidate's needs. Written and/or oral responses and/or performance evidence could be used to gather evidence for all the performance criteria. Non verbal indication of selection would be acceptable in the case of speech and language impairment or physical challenge.

Assessments may be carried out, on the assessment sheets, using the dual choice format, by ticking the correct box. Assessment may also be completed by providing candidates with a practical assessment situation, with concrete materials, where candidates could select, from a choice of two, the correct measurement word. The word could then be placed beside the real life object or picture. Evidence could be provided by simply giving the teacher or lecturer the correct oral response, from an *or* question, or by simply indicating the response by pointing, nodding or shaking the head.

Teachers/lecturers should provide adequate opportunities for formative assessment to take place prior to candidates undertaking the required unit assessment which is recorded for assessment purposes. Teachers/lecturers may give candidates advice and support during formative assessment in order to prepare them for the formal assessment.

For PC (b) when ordering objects in terms of their volume, it would be helpful to provide candidates with everyday containers. Ordering tasks is much simpler when the actual objects are used.

Records of all assessment instruments used and evidence produced by each candidate should be retained for moderation purposes. As candidate evidence may be generated by written and/or oral and/or performance evidence for this unit, records should be kept of candidate performance. These could be in the form of checklists completed by a responsible person observing the performance or recording the answers to questions, or they may also be in the form of video or audio recordings of candidate performance. All checklists must be signed and dated by the teacher/lecturer who assesses the evidence and authenticates the record as an accurate record of the work of the named candidate.

All printed evidence should be signed and dated and video or photographic evidence stored for moderation purposes.

National Unit Specification: support notes (cont)

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CANDIDATES WITH ADDITIONAL SUPPORT NEEDS

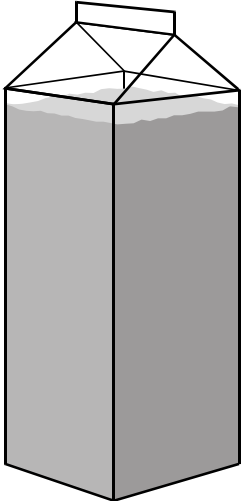
This Unit Specification is intended to ensure that there are no artificial barriers to learning or assessment. The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative Outcomes for Units. For information on these, please refer to the document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (SQA, 2004).


| | |
|--|--|
| Curriculum Descriptors (not certificated) | <p>Curriculum Descriptors provide a framework for describing the learning process for candidates for whom an Access 1 unit is not appropriate. They use performance criteria from Access 1 units as <i>Learning Targets</i>. Progress within the Curriculum Descriptor framework may be recorded by means of Progress File or by a centre's own systems for recording achievement. Curriculum Descriptors belong to Learning and Teaching Scotland and are not certificated by SQA.</p> <p>Some candidates may progress from Curriculum Descriptors to free-standing Access 1 units.</p> |
| Independent Access 1 units | <p>Independent Access 1 units are designed principally for candidates who are developing basic skills in a supported learning environment. Candidates are not required to have completed any other units prior to undertaking these units. Independent Access 1 units are not derived from the outcomes of Access 2 units. They may provide progression from Curriculum Descriptors for some candidates or be delivered within an integrated programme comprising a mixture of units and Curriculum Descriptors according to the needs of the candidate. On completion of an independent Access 1 unit, candidates may progress to other independent units at Access 1, such as:</p> <p>D9ER 07 Sampling Work: An Introduction D9EV 07 Recognising Time D9EW 07 Basic Communication in a Familiar Setting D9EX 07 Using Basic Computer Skills D9EY 07 Personal Profiling: An Introduction D9F0 07 Working with Others on a Group Activity</p> <p>Alternatively, progression may be to Access 1 units which are derived from Access 2 outcomes or to Access 2 units.</p> |
| Access 1 units derived from Access 2 outcomes | <p>These Access 1 units are based on outcomes of Access 2 units. This allows candidates to build up to an Access 2 unit in a step by step approach as they achieve the appropriate component outcomes. Access 1 units derived from Access 2 outcomes may be a starting point for some candidates or may provide progression from the above independent Access 1 units.</p> |
| Access 2 units | <p>Access 2 units enable progression from Access 1 units although for some candidates, they may be a starting point. Candidates who have achieved an Access 2 unit may progress to other Access 2 units or to Access 3 units. They may also progress laterally to a Scottish Group Award at Access 2 (single, double or triple) or to the more vocational Skillstart Group Award at Access 2.</p> |

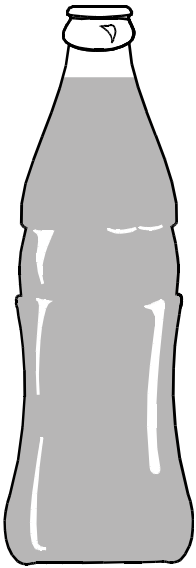
Investigating Volume — Assessment Exemplar

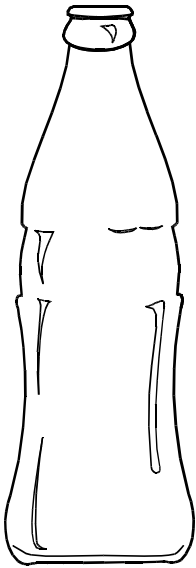
These pictures are given as examples. Centres are free to choose other pictures or to use everyday objects as appropriate.

(i) Look at the following pictures and tick the box.

| Carton | |
|--|-------|
|  | |
| Full | Empty |

| Tea Cup | |
|---|-------|
|  | |
| Full | Empty |

| Bottle | |
|---|-------|
|  | |
| Full | Empty |


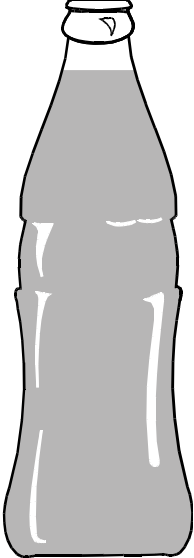
| Bottle | |
|---|-------|
|  | |
| Full | Empty |

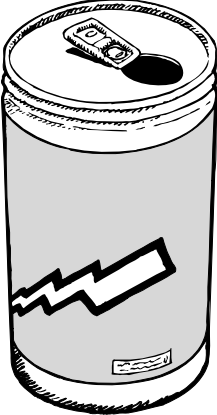
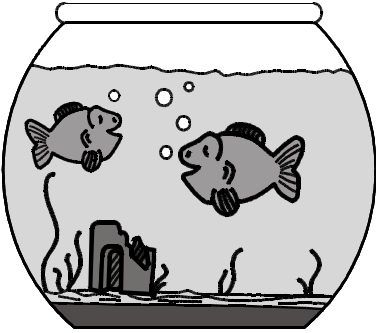
(ii) Place the objects in order of volume (least to most)

LARGE BOTTLE OF WATER
SHAMPOO BOTTLE

NAIL POLISH BOTTLE
(real containers)

(iii) Look at the following pictures and tick the correct box.

| | | |
|--|--------------------|---|
| <p style="text-align: center;">Swimming Pool</p>  | <p>More</p> | <p style="text-align: center;">Bottle</p>  |
| | <p>Less</p> | |

| | | |
|---|--------------------|---|
| <p style="text-align: center;">Soft Drinks can</p>  | <p>More</p> | <p style="text-align: center;">Fish bowl</p>  |
| | <p>Less</p> | |