-SQA- SCOTTISH QUALIFICATIONS AUTHORITY

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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number-	**7180060**	**-Session-1990-91**
-Superclass-	**RB**	
-Title-	**SMALL SCALE PLANNING, ESTIMATING AND COSTING**	

-DESCRIPTION-

Purpose	The purpose of this module is to develop skills and confidence in planning, estimating and costing small scale projects.

Preferred Entry Level	7180020	Using Arithmetic Skills
	7180050	Using Measurement Skills Within Everyday Activities

Outcomes

The student should:

1. make a scale drawing to plan a layout;
2. calculate the amount of material required for a task;
3. cost a task.

Assessment Procedures

Acceptable performance in the module will be satisfactory achievement of all the Performance Criteria specified for each Outcome.

The following abbreviations are used below:

PC Performance Criteria
IA Instrument of Assessment

Note: The Outcomes and PCs are mandatory and cannot be altered. The IA may be altered by arrangement with SQA. (Where a range of performance is indicated, this should be regarded as an extension of the PCs and is therefore mandatory.)

OUTCOME 1 **MAKE A SCALE DRAWING TO PLAN A LAYOUT**

PCs

(a) All elements in the planned layout are indicated accurately within the drawing.
(b) Representation of dimensions within the drawing is accurate.
(c) Accuracy of the drawing is appropriate to its purpose.
(d) Labelling of elements of the layout is clear.
(e) Units of measurement are appropriate to purpose.

IA Graphical Exercise

The student will be required to produce a diagram of a situation on size A4 paper. The diagram should include essential features and should contain between six and eight elements.

Satisfactory performance will be achievement of all the Performance Criteria.

OUTCOME 2 **CALCULATE THE AMOUNT OF MATERIAL REQUIRED FOR A TASK**

PCs

(a) Procedure selected is correct in terms of the task.
(b) Procedure employed is implemented correctly.
(c) Calculations are correct in terms of the procedures employed and the numerical answers obtained.
(d) Adjustment to accommodate wastage is correct.
(e) Calculation of batch quantity required is correct.

IA Assignment

The student will be required to undertake 3 assignments:

(i) The first assignment will require the student to calculate a quantity where determination of an area is the procedure to be employed.
(ii) In the second assignment the determination of a volume is the appropriate procedure. It should also involve the calculation of the constituent parts of a mixture consisting of at least three different materials.

(iii) In the third assignment the student will be required to estimate the numbers of at least three different items which will be needed in one specified task.

Satisfactory performance will be achievement of all the Performance Criteria.

OUTCOME 3 COST A TASK

PCs

(a) Selection of correct materials from an information source is accurate.
(b) Selection of batch size is correct in terms of minimising costs.
(c) Totalling of net cost is correct.
(d) Documentation is correct and clear.

IA Assignment

The student will undertake one costing task.

Satisfactory performance will be achievement of all of the Performance Criteria.

The following section of the descriptor are offered as guidance.
They are not mandatory.

CONTENT/CONTEXT

Corresponding to Outcomes 1-3:

Use of calculators is strongly recommended in this module.

Three small projects will be planned by the student. These should relate to the student's own interests or hobbies. They should be chosen to ensure that one requires an area to be estimated, the second a volume and the third, quantities of different items.

1. The drawing could be a furniture layout in a room, an exhibition stand etc. It would be preferable if the drawing related to one of the projects.

2. The student is required to select a procedure to perform a task. For example, if the task was to estimate the amount of wallpaper needed for a room, then the selected procedure would be to determine the area of the room. This procedure would be implemented by the student making a set of measurements on suitable sections of the walls.

   The student would be required to:

   (i) carry out a multiplication operation to determine area and
   (ii) produce the correct numerical answer to the multiplication.

   The student would require to allow for matching of patterns, overlaps etc.

   On the basis of the total area calculated, the student would then be required to determine how many rolls of wallpaper would be required for the task. In this example the batch quantity would be the number of rolls of wallpaper.

3. The materials for one of the projects will then need to be costed. While it is not necessary to employ a catalogue to obtain prices, nor complete an order form, a list should be constructed which contains the necessary data on materials, prices, VAT and discount modifications, and total cost.

A typical form which could be used is:

Cat.No.	Name of Item	Number Required	Batch Cost	Number x	Batch Cost
			Total		
			VAT		
			Discount		
			Net Total		

SUGGESTED LEARNING AND TEACHING APPROACHES

This module should be activity based with opportunities to develop planning, problem solving, measurement and numerical skills in real and simulated situations.

Activities chosen should be based upon the students' personal interests and hobbies.

Appropriate measuring equipment, catalogues, order forms, price lists and DIY magazines should be available to cover the range of interests present among the student group.

Learning and teaching approaches could include individual/small group work, discussion, measurement exercises, simulation exercises and participation in real-life situations wherever possible.

The student should be encouraged to maintain a folio/log of completed work in which relevant information is included.