



PROBLEM SOLVING
SCQF Level 5
40 Hour Unit (F3GD 11)

CORE SKILLS UNIT

What are Core Skills?

Core Skills are skills and abilities that everyone uses in their family and personal life, at work, in public, in the community, and in education and training.

The Core Skills are:

- ◆ Communication
- ◆ Numeracy
- ◆ Information and Communication Technology
- ◆ Problem Solving
- ◆ Working with Others

They are important because they help you to be effective in almost everything you do. That's also why employers value them.

Improving your Core Skills helps you cope with today's quickly changing world. It will make you more confident, help you to learn more easily, and improve your career prospects.

What is this Core Skills Unit about?

This Unit is about solving problems in everyday settings.

What should I know or be able to do before I start?

You may have achieved the Core Skills Unit in Problem Solving at SCQF level 4. Alternatively, you may be able to show that you have similar experience of solving problems, for example planning to redecorate a room in your house, researching study courses, or improving an ordering system.

What do I need to do?

You will:

- ◆ identify the main factors affecting a non-routine situation or issue (for example, what are the causes of the problem and who is involved)
- ◆ assess the importance of these factors
- ◆ consider what could be done and justify an approach to address the problem
- ◆ work out an action plan to deal with the problem (for example, work out the steps involved and the order to do them in; decide which steps can be done at the same time; decide who should carry out each step; think about working within limitations, managing time, and managing people)
- ◆ choose and obtain the resources you will need to carry out the action plan (for example, equipment, information, money, or input from other people). You might have to think about the procedures for obtaining these.
- ◆ carry out the action plan and then check whether or not it is complete
- ◆ work out how to judge how effective each stage of your problem solving activity has been (for example, did you identify the correct causes of the problem, did your action plan address these causes, did the action plan keep to the specified timescale, did everyone carry out their allotted steps, did you identify the correct resources and the best ways of getting them, and did you use resources effectively)
- ◆ gather evidence and use your chosen criteria to judge the effectiveness of all aspects of your problem solving activity
- ◆ draw conclusions from your problem solving activity, justifying these based on the evidence you gathered, and, if it's appropriate, devise alternative ways of solving similar problems in the future

How do I get this Unit?

You will need to show that you have all the skills in the Unit.

You will investigate a problem, draw up and carry out an action plan to try to solve the problem, and finally review how effective your problem solving activity has been, based on the evidence you have.

You may have written evidence, such as notes of discussions with others, the action plan itself, records of steps you undertook and your thoughts on how well things went. Your tutor may ask you questions and make notes or a recording of what you have said.

What might this involve?

Here are some examples of problems you might solve:

- ◆ Investigate the reasons why membership is down at a club you attend. Devise and put a plan in place to attract more members.
- ◆ Draw up, follow, and review a personal revision and study plan for an exam.
- ◆ Find out why your team's wastage level in production has risen over the past months. Propose and implement a solution.

What can I do next?

You could move on to the Problem Solving Core Skills Unit at SCQF level 6.

You could think about doing other Core Skills Units in:

- ◆ Communication
- ◆ Information and Communication Technology
- ◆ Numeracy
- ◆ Working with Others.

Your tutor can advise you about this.

Guidance for tutors

At SCQF level 5 learners should be dealing with a situation or issue in a context that is non-routine. If the situation is familiar to the learner, the relationship between the factors affecting the situation will need to be clarified. If the learner is examining an unfamiliar situation, the relationship between the factors must be clear.

There are three stages to the problem solving process that are assessed by this Unit: the critical thinking stage, the planning and organising stage, and the reviewing and evaluating stage.

Critical thinking

Learners will recognise and analyse the main factors affecting a situation or issue. The problem requiring a solution should be non-routine. Learners will identify the factors affecting the issue and then decide on the relative importance of each of these. They may have to make a decision on competing demands, for example time, quality, and cost. The learners will then evaluate the situation and devise an approach to deal with it.

Planning and organising

Learners will develop an action plan that deals with the factors affecting the situation or issue. The learners will firstly identify the steps involved and then devise the action plan, making clear the order in which steps need to be carried out and relationships between them. The action plan may include steps that can be carried out simultaneously and the learners will identify who is to carry out the steps. Learners will identify resources to be used; these may include equipment, information, people, and money. Obtaining resources may also involve implementing procedures and input from others. Once the action plan has been devised the learners will carry out the steps as planned, monitor the steps allocated to others, and check the action plan is complete. They may need to adjust their action plan to take account of changing circumstances.

Reviewing and evaluating

On completion of the action plan, the learners will decide on criteria to judge how effective each stage of the problem solving activity has been. Examples of criteria include the correct identification of the causes of the problem,

correct identification and sequencing of steps making up the action plan, and supporting resources and monitoring of the implementation of the action plan.

Learners must use only one problem solving activity to prove that they meet all of the requirements of the Unit. They should not gather evidence from different problem solving activities.

Further guidance is available in the accompanying Assessment Support Pack.

Disabled learners and/or those with additional support needs

The additional support needs of individual learners should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website

www.sqa.org.uk/assessmentarrangements.

ADMINISTRATIVE INFORMATION

Credit value

6 SCQF credit points (1 SQA credit) at SCQF level 5



Unit code: F3GD 11
Superclass: HB
Publication date: August 2009
Source: Scottish Qualifications Authority
Version: 02

Helpdesk: 0845 279 1000
Fax: 0845 213 5000
E-mail: customer@sqa.org.uk
Website: www.sqa.org.uk

Optima Building	Ironmills Road
58 Robertson Street	Dalkeith
Glasgow	Midlothian
G2 8DQ	EH22 1LE

© Scottish Qualifications Authority 2009