



Assessor's Guidelines SVQ2 Thermal Insulation (Construction) SCQF level 5

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About this guide

This guide provides some practical examples of how to assess your candidates for the **SVQ2 Thermal Insulation (Construction) SCQF level 5**. You may be able to think of other ways of assessing your candidates and recording your decisions about their competence.

Using assessments based on these examples does not guarantee successful verification — it is still your responsibility to ensure that internal quality assurance procedures are followed.

Introduction

This introduction provides a brief overview of SVQs and how they are assessed in the workplace. If you are already familiar with the concept of SVQs, you may wish to go to the next section.

About SVQs and the SCQF

Scottish Vocational Qualifications (SVQs) are work-based qualifications which set the level of occupational competence for each sector of the economy and are usually delivered in the workplace or in partnership with a college or other training provider. The qualifications have been designed by standards-setting bodies made up of experienced practitioners who represent employers, professional bodies, trade unions, education and voluntary organisations.

Each standards-setting body is responsible for developing national standards which define *what* employees (or potential employees) must be able to do, *how well*, and *in what circumstances*, to show that they are competent in their work.

Each SVQ which a standards-setting body develops has to fit into a broad framework which allows qualifications in the UK and throughout Europe to be compared.

There are SVQs for nearly all occupations in Scotland and they are available at SVQ levels 1–5. SVQs are currently notionally placed in the SCQF as the individual SVQs may be at differing SCQF levels and have differing amount of credit points, depending on the structure and context of the SVQ. SVQs are a means of recognising the skills and knowledge people need in employment, ie job competence. Successful completion of an SVQ provides clear evidence that the learner works to nationally recognised occupational standards.

Each Unit defines one aspect of a job or work-role, and says what it is to be competent in that aspect of the job. To be awarded a full SVQ, learners must achieve each of the SVQ Units which make it up by demonstrating that they are competent in that aspect of the job. The Units which make up the SVQ can also be taken as freestanding awards. Some SVQs or SVQ Units are incorporated into other awards or programmes including HNCs and Modern Apprenticeships.

Explanation of levels

SVQ1 (SCQF level 4)	Competence involves the application of knowledge and skills in the performance of a range of varied work activities, most of which may be routine or predictable.
SVQ2 (SCQF level 5)	Competence involves the application of knowledge and skills in a significant range of varied work activities, performed in a variety of contexts. At this level, there will be activities, which are complex or non-routine and there is some individual responsibility and autonomy. Collaboration with others, perhaps through membership of a work group or team, may often be a requirement.
SVQ3 (either SCQF level 6 or 7)	Competence involves the application of knowledge and skills in a broad range of varied work activities, most of which are complex and non-routine. There is considerable responsibility and autonomy, and control or guidance of others is often present.
SVQ4 (either SCQF level 8 or 9)	Competence involves the application of knowledge and skills in a broad range of complex technical or professional work activities, performed in a wide variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources is often present.
SVQ5 (SCQF level 11)	Competence involves the application of skills and a significant range of fundamental principles across a wide and often unpredictable variety of contexts. Very substantial personal autonomy and often significant responsibility for the work of others and for the allocation of substantial resources feature strongly, as do personal accountability.

For further information on SCQF go to www.scqf.org.uk.

How are standards defined in SVQs?

All SVQs consist of standards which can be broken down into various parts.

Units define the broad functions carried out in the sector, and are made up of a number of **Elements**. These **Elements** describe the activities which employees have to perform, and will require candidates to demonstrate certain skills or Knowledge and Understanding.

The quality of performance in what people must be able to do — how well they have to perform — is described by **Performance Criteria**. These may also be called **statements of competence** or **what candidates should do**.

The section on **Knowledge and Understanding** says what candidates must know and understand, and how this knowledge applies to their jobs.

You may also come across standards containing statements on **scope**. These statements could, for example, list the equipment that candidates are expected to be familiar with and use in their occupational area.

Increasingly, you may see changes to this format as standards become more user-friendly and are written in plain English. For example, there may be some standards containing **Range Statements** or **Evidence Requirements**, but over time these should disappear. You may, however, find that information on the context, nature and amount of evidence which is required to prove competence (which used to be given in Range Statements and Evidence Requirements) is now defined in the **assessment guidance** for the qualification. Assessment guidance is drawn up by the awarding body and is packaged along with the standards to form the SVQ.

Who is involved in SVQs?

There are several roles:

- ◆ **the candidate:** the person who wants to achieve the SVQ (eg an employee)
- ◆ **the assessor*:** the person who assesses the candidates and decides if they are competent (eg supervisor)
- ◆ **the internal verifier*:** an individual nominated by the centre (eg a company) who ensures that assessors apply the standards uniformly and consistently (eg supervisor's line manager)
- ◆ **the External Verifier *:** an individual appointed by SQA who ensures that standards are being applied uniformly and consistently across all centres offering the SVQ

*Assessors and verifiers in centres will be asked by SQA to prove they have the appropriate occupational competence to assess and verify the SVQ. Occupational competence has been defined by the standards-setting body in the Assessment Strategy for this SVQ(s) — see SQA’s website: www.sqa.org.uk.

Assessors and verifiers are also expected to obtain an appropriate qualification in assessment and verification — this can be the Learning and Development Units (the national standards for assessment and verification), or an alternative qualification which SQA also recognises.

The steps involved in assessing a candidate for an SVQ

In deciding whether a candidate should achieve an SVQ, you will go through these stages:

- ◆ planning for assessment
- ◆ generating and collecting evidence of the candidate’s competence in the Units
- ◆ judging the evidence of the candidate’s ability and making an assessment decision based on the evidence
- ◆ recording the assessment decision and the candidate’s achievement

1 The SVQ2 Thermal Insulation (Construction) SCQF level 5

The SVQs in Thermal Insulation have been developed by Sector Skills Council-ConstructionSkills and The Thermal Insulation Contracting Industry (TICI) and are intended for people in the craft sector of the construction industry and related sectors.

These people may be working as Time Served Thermal Insulators, Apprentice Thermal Insulators or Foreman Thermal Insulators/Supervisors. They will require skills and knowledge in erecting and dismantling mobile working platforms, identifying insulation and its uses and purposes, installing insulation to hot and cold process and service pipe-work, vessels and ducting systems, fabricating protection from existing templates for insulated systems and fitting sheet metal and non-metallic protection for insulated systems. They will also be required to operate within set timescales, work safely at all times, work as part of a team, work in an organised and effective manner, take care of tools, stack and store materials and in general conduct themselves in an appropriate manner during a variety of working situations.

The SVQs are designed to be assessed in the workplace, or in conditions of the workplace. Examples of the settings or centres in which the SVQs are likely to be delivered include: construction sites, industrial & petro-chemical sites, marine-ship – building & repair, training providers and further education colleges.

Structure of the SVQs

This section lists the Units which form the SVQ in Thermal Insulation (Construction).

SVQ2 Thermal Insulation (Construction) SCQF level 5 (GE7N 22)

Mandatory Units

SQA ref	SCQF level	SCQF credit points	SSC ref	Title
H0HR 04	5	92	VR322	Apply Insulation and Finishes to Cylindrical and Flat Surfaces
FN2J 04	5	12	VR641	Conform to General Workplace Health, Safety and Welfare
FW0J 04	5	5	VR642	Conform to Productive Work Practices
FN2V 04	5	5	VR643	Move, Handle or Store Resources

Plus one of the following optional routes

Fabricate Protection Option Route (Total 5)

SQA ref	SCQF level	SCQF credit points	SSC ref	Title
H0HS 04	5	92	VR323	Fabricate Sheet Metal Insulation Protection from Existing Templates

Fit Protection Option Route (Total 5)

SQA ref	SCQF level	SCQF credit points	SSC ref	Title
H0HT 04	5	62	VR324	Fit Sheet Metal Insulation Protection

Additional for all options — not compulsory

SQA ref	SCQF level	SCQF credit points	SSC ref	Title
DX8Y 04	5	11	VR250	Erect and Dismantle Access/Working Platforms
FW1M 04	5	12	VR392	Operate Plant or Machinery for Accessing

An Assessment Strategy for the SVQ

As part of their review of the SVQ, the standards-setting body ConstructionSkills has developed an Assessment Strategy which defines a range of requirements:

- ◆ the occupational expertise of assessors and verifiers
- ◆ a definition of simulation
- ◆ definition of the workplace
- ◆ information on a model of independent assessment or external quality control

The relevant parts of the Assessment Strategy are published on SQA's website (www.sqa.org.uk), and both SQA and centres must comply with these requirements.

Why would people be interested in the SVQ?

People will take SVQs for a variety of reasons: to gain promotion, to prove their job competence, or for personal development. There will be other reasons too. One of the first things to do is to find out why your candidates want to do the SVQ, and to advise them of the appropriateness of the qualification. If anyone is acting as a coach or mentor to your candidates, they might help you to do this.

How do candidates begin?

Choosing the SVQ

You should make sure that candidates get guidance before starting out on an SVQ — they need advice to ensure that their existing job remit, skills, experience, and their plans for progression, are matched to the SVQ selected. It does not have to be you as the assessor, who carried out the matching process, but whoever has responsibility for this should ensure that the assessment opportunities available to the candidate are also considered.

New entrant

Candidates must be employed in the construction industry as an apprentice Thermal Insulation Engineer. They will attend a college of further education or an approved Thermal Insulation Construction Industry (TICI) training centre for a prescribed period of time during their apprenticeship.

Whilst in attendance at one of these approved centres, candidates will work towards generating all the necessary evidence to meet the requirements of the SVQ Units in their chosen occupational area.

In addition to this, candidates will be required to sit and pass a health and safety test and practical skills test, both administered by ConstructionSkills.

Example

John has just left school and was deciding which career path to follow. He had taken qualifications at school but felt he was more of a practical type of person. This was confirmed when he contacted The Insulation and Environmental Agency (IETA) who sent him out their application pack and invited him in for a skill scan and an initial assessment in numeracy and literacy which he passed at a level suitable for him to be accepted onto their database. The Insulation and Environmental Training Agency (IETA) assisted John in securing a Modern Apprenticeship through their networking links with member companies of Thermal Insulation Contractors Association (TICA).

The Insulation and Environmental Training Agency (IETA) oversaw John's application and progress. He had to attend a local further education college on a block release basis to complete his off the job training whilst also gaining relevant work experience in his trade with his company. During his 3 year apprenticeship John also sat and passed his Health and Safety test and practical skills test which allowed him to successfully complete his SVQ2 Thermal Insulation (Construction).

Experienced worker

This route is available to candidates who have been employed as a Thermal Insulator for over five years but hold no formal qualifications which would give them national recognition for their existing skills. A skills matching exercise would be undertaken, recording the candidate's skills, knowledge and expertise against the SVQ Units. The candidate would then, under guidance from the assessor, take part in a professional discussion and be observed conducting daily work activities.

Where candidates are unable to generate sufficient evidence to meet the requirements of the Units, some planning would be required to provide the candidates with the opportunity to demonstrate competence in these areas.

All these arrangements would be agreed by everyone involved and written up into an assessment plan for the candidate.

Example

Scott is 38 years old. On leaving school at 16 he served an apprenticeship with a small Thermal Insulation Company but did not gain any formal qualifications. After serving his time, he was employed as a Thermal Insulator in the Construction Industry. He has gained wide experience in the Industrial Heating and Ventilating section of the Construction Industry and has held his place in his current insulation squad for about four years.

With the prospect of the Construction Skills Certification Scheme (CSCS) card becoming a pre-requisite to hold down employment in the construction industry, Scott found himself in the position of requiring to be registered for an SVQ2 Thermal Insulation (Construction) to qualify for his CSCS card.

Scott was registered by his company as a candidate for this award which was to be delivered by the On-Site Assessment and Training (OSAT) method. Scott was quite worried about this as he had not been in any formal training or education for over 20 years.

Scott attended an initial meeting with his appointed assessor from the Insulation and Environmental Training Agency (IETA). This meeting was conducted on a one-to-one basis and Scott completed the skill and knowledge scan for the following Units:

- ◆ Conform to General Workplace Health, Safety and Welfare
- ◆ Conform to Productive Work Practices
- ◆ Move, Handle or Store Resources
- ◆ Apply Insulation and Finishes to Cylindrical and Flat Surfaces

The skill scan also identified Scott should be able to generate evidence for the following Units:

- ◆ Fabricate Sheet Metal Insulation Protection from Existing Templates
- ◆ Fit Sheet Metal Insulation Protection
- ◆ Erect and Dismantle Access/Working Platforms

The assessor gave Scott some initial guidance and advice on how to collect evidence and construct a portfolio to achieve the four mandatory Units. Providing opportunities to demonstrate competence for the three optional Units would require some planning, and there was the possibility that training might be required.

The assessor arranged to visit Scott at his current construction site to carry out some initial observations and assessment as appropriate depending on which site activity Scott was undertaking.

The assessor acknowledged that it would be very difficult to predict exactly what activity would be occurring on any particular site visit and that assessment plans would have to be modified to accommodate this.

Scott was working on a new build school, applying thermal insulation to pipe-work and ductwork utilising thermal insulation methods which would provide opportunities to generate evidence for the initial four Units identified in the skill scan.

The remaining Units were reviewed, and it was acknowledged that, owing to the nature of the insulation work he would most likely be doing, it was unlikely that Scott would get the opportunity to generate evidence for every aspect of these Units in the foreseeable future.

It was therefore agreed to draft an assessment and training plan which would include, where necessary, Scott's attendance at a local FE college and/or in-house training centre in order to provide coverage of the full scope of Performance and Knowledge Evidence for the outstanding Units. This plan was agreed by all parties and formally written up for Scott.

2 Preparing to assess the SVQ

This section offers practical advice on how to begin to go about assessing your candidates for the SVQ. This advice is offered as examples of good practice — you may develop your own approaches to assessing your candidates which also work well.

Your role and your candidate's role

Assessing the SVQ will involve several stages. Both you and the candidate should be clear on your roles in the assessment process before you begin.

Your role

- ◆ ensure candidates understand what is to be assessed and how it is to be assessed
- ◆ ensure the conditions and resources required for assessment are available
- ◆ help candidates to identify and gather evidence
- ◆ observe and record candidates carrying out the activities described in the standards — records should say what has been observed, how it was carried out, and what it demonstrates
- ◆ assess products of the candidate's own work
- ◆ question candidates and record results
- ◆ help candidates to present evidence
- ◆ authenticate the evidence candidates provide
- ◆ judge evidence and make assessment decisions
- ◆ identify gaps or shortfalls in candidates' competence
- ◆ provide feedback to candidates throughout the assessment process
- ◆ record achievement

Candidates' role

- ◆ prepare for assessment — become familiar with the standards, what is to be assessed and how it is to be assessed
- ◆ help to identify sources of evidence and how these could be assessed
- ◆ carry out activities, and/or produce products of own work, and/or answer questions
- ◆ gather and present evidence
- ◆ receive and act on feedback from the assessor

Planning

In planning for assessment, you will find it helpful to meet with your candidate and plan what is to be assessed, in what way, and when and where the assessment is to take place. This discussion can be confirmed in the form of an agreed assessment plan between you and your candidate.

You should treat assessment plans as working documents — they can be updated and changed as you review progress with your candidate.

As you are planning assessment, don't forget to make the most of opportunities to *integrate* assessment. This means planning to assess an activity which draws on the contents of different Units or Elements. It can be a practical and cost-effective way of assessing your candidate's competence.

If you are a new assessor working towards your Learning and Development Units (the national standards in assessment and verification) you will need copies of completed assessment plans as part of your evidence.

To help you plan for assessment, we have produced an assessment plan which covers Unit VR643 — *Move, Handle or Store Resources* and Unit VR322 — *Apply Insulation and Finishes to Cylindrical and Flat Surfaces*.

You will notice that we have included spaces to enter dates when the assessment plan has been reviewed. Any gaps identified during these reviews should be discussed with your candidates and noted for action in the assessment plan.

Assessment plan

Units	VR643 — Move, Handle or Store Resources VR322 — Apply Insulation and Finishes to Cylindrical and Flat Surfaces				
Elements					
Activities	Performance Criteria (PC)	Method of assessment/ Sources of evidence	Date of assessment	Evidence already available	Links to other Units (PC and range)
It is planned that John will be observed applying insulation to a hot oil vessel in the plant-room of a new build hospital. During this practical activity, notes will be taken of any other relevant integrated activities to include, for example: reading drawings, storing and stacking materials, methods used to lift tools and other heavy objects, protecting surrounding areas, keeping working area tidy, using PPE and taking care of tools and equipment.	Unit VR322: PC (1-7) Apply Insulation and Finishes to Cylindrical and Flat Surfaces Unit VR643: PC (1-5) Move, Handle or Store Resources	Direct observation and product evidence with questioning	10 th January 2012	Insulation of pipe-work	Unit VR641: PC (1–4) Unit VR641: PC (1–4)
Questioning for knowledge and understanding not apparent from performance to be identified from 2nd review					

Assessor's signature	<u>William Campbell</u>	1st review due	<u>18th January 2012</u>
Candidate's signature	<u>J. Healy</u>	2nd review due	<u>03rd February 2012</u>
Date of agreement	<u>10th January 2012</u>	Date of completion	<u></u>

Selecting methods of assessment

The methods of assessment you use should be valid, reliable and practicable.

- ◆ By valid we mean that the assessment method should be appropriate to the standards.
- ◆ By reliable we mean that the assessment method should ensure consistent results when used with different candidates, different assessors and on different occasions.
- ◆ By practicable we mean that the method ensures that the assessment makes best use of available resources, equipment and time.

Before you assess a candidate, you must make sure that the methods of assessment you have chosen to use, along with any assessment materials (such as questions and sample answers) have been agreed within your centre through its system of internal quality assurance. This system is often called *internal verification* — its purpose is to help to ensure that assessment methods are valid, reliable and practicable.

There are both benefits and challenges when you are assessing SVQs in the workplace, or in conditions of the workplace. When you select methods of assessment, you should try to offer the candidate the benefits of workplace assessment and minimise any potential difficulties.

The benefits might be:

- ◆ feeling at ease in the familiarity of the construction site
- ◆ being familiar with the candidate
- ◆ working at the candidate's pace of learning
- ◆ informality of the processes
- ◆ all resources being readily available

The challenges might be:

- ◆ candidates being too familiar in the context of a construction site
- ◆ pressure of work/productivity on the site
- ◆ candidates moving around sites, making it difficult to locate them
- ◆ timing visits for specific assessments
- ◆ candidates changing companies

Example

You might agree with a candidate to visit his place of work when it is anticipated that he will be involved in the installation of thermal insulation to external ductwork on the roof of a commercial building in the city centre. This situation should allow you to observe the candidate's performance in a variety of skills and allow him to demonstrate his knowledge. This type of observation is considered to be the best method of assessing candidates.

Methods of assessment

Assessment may involve a range of assessment methods. For SVQs, some of the most commonly used methods are observation, product evidence, and questioning.

Observation

Observation by an assessor is considered to be the most valid and reliable method of assessment. It can be organised in a variety of ways:

- ◆ working alongside the candidate
- ◆ arranging to visit when naturally-occurring activities are carried out by the candidate
- ◆ arranging for activities to take place

Observation by the assessor can often be supplemented by other types of assessment methods such as questioning. For example, it may be appropriate to ask oral questions of candidates as they carry out naturally-occurring activities.

Example

An assessor could observe a candidate preparing product evidence by cutting pipe-work insulation for installing on a radius pipe-work bend. This could include establishing how many segments to cut, calculating the angles, installing the segments ensuring a tight butt fit, wiring the segments into position and installing the metal cladding to the bend, etc.

- ◆ Observation of the candidate taking instructions, interpreting information, working as part of a team.
- ◆ Direct observation of the candidate preparing the work area and storing tools and equipment on completion.

Product evidence

As candidates work towards achieving the SVQ, they will produce evidence in the form of products of their work. The nature of this evidence can vary widely depending on what the candidate's job entails, but examples of product evidence include:

- ◆ a completed section of insulated pipework with insulation correctly staggered and wired into position
- ◆ metal cladding applied to pipework to include adequate water-shed seams and joints
- ◆ any items of insulated pipework not yet metal-clad to be covered and protected against moisture and inclement weather

Questioning

Candidates have to show that they can meet the knowledge specifications for the SVQs. For these SVQs, Knowledge and Understanding is specified for each Unit. Much of a candidate's knowledge and understanding will be apparent from what they do or produce as part of their work, but this will not always be the case, and questioning can be a useful way of confirming what candidates know and understand.

Questions can be asked in a variety of forms, such as oral questions, short answer written questions, and multiple-choice.

You should be careful that the method of questioning does not go beyond the competence required for the SVQ and become a barrier to fair assessment. For example, some candidates will feel more comfortable with oral questions than written.

Q I overheard you asking the General Assistant to bring up onto the scaffold the I.D Banding and Flow Indicator stickers for the insulated duct. Why did you ask for these items?

A To allow me to apply the I.D Banding and Flow Direction stickers onto the insulated finish so as we could move our mobile scaffold along to the next section to be insulated.

Q I noticed you spent a bit of time after you had insulated the spiral duct work cleaning up around the work area removing all your debris and disposing of the waste in the appropriate skips. Is that not a labourer or general assistants job?

A The general assistant who was working with me was returning unused insulation back to the dry storage area and I am responsible for my own work area in terms of safety and hazards.

Other methods of assessment

These methods, like questioning, are often used for authentication. See Section 3 for more about authenticating candidates' evidence.

Personal statements

You might sometimes find it helpful to ask a candidate to give an account of why they did an activity in a certain way or how they produced a product of their work. This is often referred to as a *personal statement*. You should take care to ensure that by asking candidates to produce such statements, you are not asking them to demonstrate competence beyond what is required by the standards. You should also be selective in the use of personal statements, and make sure they have not been produced as a substitute to a more valid, reliable and practical method of assessment.

The candidate could use a personal statement in Unit VR322 — Apply Insulation and Finishes to Cylindrical and Flat Surfaces.

You may not have been able to observe the candidate meeting all the Performance Criteria for Applying Insulation to a Dome End on a Gas Pressure Vessel in an Oil Refinery. The personal statement would allow the candidate to explain the process and procedures as well as demonstrating their grasp of knowledge and understanding.

Witness testimony

For practical reasons, you may not be able to observe all the activities carried out by your candidates, but might feel that other people may be able to provide a statement on what your candidates have been doing or producing as part of their work.

Statements of this kind are called *witness testimony*, and are often used to support other evidence produced by candidates. If witness testimony is used, you should, ideally, identify witnesses and opportunities for using their testimony as part of assessment planning.

You should bear in mind that the weight of the evidence will vary, depending on the knowledge and expertise of the person providing the witness testimony. You will have to take these factors into account as you make your judgement.

Strongest	Someone with considerable occupational expertise in the candidate's area of work and who is familiar with the standards. This person may also be an assessor or internal verifier qualified with the Learning and Development Units, A/V Units or 'D-Units'.
↑	Someone with considerable occupational expertise in the candidate's area of work and who is familiar with the standards.
	Someone with considerable occupational expertise in the candidate's area of work, but with no knowledge of the standards.
	Someone who may be a colleague of the candidate, but with no knowledge of the standards.
↓	
Weakest	Someone with no or little knowledge of the candidate's work or no knowledge of the standards.

Witness testimony is unlikely to be sufficient in itself for a decision about the candidate's competence, and would normally be supplemented by questioning candidates.

Example

In Unit VR641 — *Conform to General Workplace Health, Safety and Welfare* candidates are required to 'comply with all workplace safety legislation requirements at all times'.

A witness testimony produced by the candidate's supervisor or employer would be very useful as it could detail the ability of the candidate to conform to legislation in their work role.

Photographic evidence

In Construction SVQs, evidence being generated by candidates is often authenticated by the use of photographic evidence. Established best practice is for photographs to be presented in a natural sequence of events with the candidate being visible in the assessment activity.

Exact site locations of the activity should be clearly noted in the photographs with dates and a clear description of what aspect of the particular Unit the photographs are linked to.

Simulation

Simulation is any structured assessment exercise involving a specific task which reproduces real-life situations.

On some occasions, it may not be practical to assess a candidate in real work. Examples might be where the standards require candidates to carry out emergency or contingency procedures, or where client confidentiality is an issue, or where a candidate's job role does not cover all aspects of the qualification.

ConstructionSkills has defined what it regards as simulation, and has specified in the standards when simulation is and is not acceptable. The standards also state when candidates must demonstrate competence in the workplace.

For more details on simulation and what constitutes performance in the workplace, look at the Assessment Strategy on SQA's website: **www.sqa.org.uk**.

Examples

- ◆ PC 2.1 in Unit VR323 requires the candidate to use drawing skills to develop geometric shaped templates for sheet metal insulation cladding/protection. As not every site the candidate works on has a metal fabrication facility this could be simulated in an 'off site environment' similar to a FE College or a Training Centre.

Other sources of evidence

Other sources of evidence can be previous experience or learning, case studies or assignments.

SQA's *Guide to Assessment* (see section 5) has more advice on methods of assessment and how to ensure that your assessment is valid, reliable and practicable.

3 Generating evidence

The methods of assessment you use should generate sufficient evidence to demonstrate the candidate's competence.

We described earlier the circumstances in which you might choose to use different methods of assessment. Starting on the next page, this section gives you examples of forms which you can use to record and present evidence of:

- ◆ observation (by the assessor)
- ◆ questions and candidate responses
- ◆ personal statement (produced by the candidate)
- ◆ witness testimony

There are blank forms which you can copy and use in assessment in Appendix 1.

Observation

For observation, note that the form asks you to record the skills and activities observed. This helps you to make a judgement on how the activity was carried out and what it demonstrates.

Observation record

Unit/Element(s)	VR322 — Apply Insulation and Finishes to Cylindrical and Flat Surfaces VR641 — Conform to General Workplace Health, Safety and Welfare
Candidate	J.Healy
Evidence index number	1
Date of observation	10th January 2012

Skills/activities observed	Performance Criteria covered
<p>The candidate showed good organisational skills when stacking insulation pipe sections before he started working, and had a full set of tools with him. He wore the standard PPE throughout MOST of the working activities (see candidate feedback) and also used eye and respiratory protection including gloves when cutting insulation to be fitted. He behaved in an appropriate manner most of the time.</p> <p>The candidate consulted the drawing plans and elevations of the building he was working in so as to distribute pipe-work insulation on each level prior to applying the insulation to the appropriate pipes. At this point I went to observe other SVQ candidates on the site.</p> <p>On returning towards the end of the working day, I observed a large section of completed insulated pipe-work the candidate was finishing off, including elbow bends, radius bends and branch tees. The overall standard was excellent with only some minor gaps in the insulation at the butt joints. I further observed the candidate applying other sections of insulated pipe-work and during this final observation the candidate complied with all relevant current legislation.</p>	<p>Unit VR641 PC 1–4</p> <p>Unit VR642 PC 1–3</p> <p>Unit VR642 PC 1–3</p> <p>Unit VR322 PC 1–7</p> <p>Unit VR322 PC 1–7</p> <p>Unit VR641 PC 1–4</p>

Knowledge and understanding apparent from this observation

The candidate demonstrated a high level of insulation skills, excellent organisational abilities and an awareness of Health and Safety matters most of the time. He organised the resources he required in an efficient manner, contributed to a safe working environment and left his workplace in an organised and tidy state in preparation for commencing the following day. During his working activities he demonstrated the ability to read and interpret drawings correctly, produce a high standard of insulation work in an efficient manner and showed good knowledge in the use of other insulation components such as applying banding at appropriate centres, fixing insulation pins and overall adhering to Specification BS 5970 Thermal Insulation.

Other Units/Elements to which this evidence may contribute

VR643 — Move, Handle or Store Resources

Assessor's comments and feedback to candidate

The candidate carried out his work in a very professional manner throughout. He showed good communication skills towards the other Thermal Insulators and General Assistants in attendance. The only aspect of this observation which must be improved was the occasional habit of removing his protective hard hat for short periods which contravened Health and Safety legislation. This was fully discussed and he agreed to avoid this habit in the future. This will be confirmed on future observations.

I can confirm the candidate's performance was satisfactory.

Assessor's signature William Campbell **Date** 10/01/2012

Candidate's signature J. Healy **Date** 10/01/2012

Questions and candidate responses

This form can be used to record any questions you might ask the candidate to establish what they know and understand. You should note the candidate's responses on this form too.

Note that there is a space near the top of the form for you to record when, where, how and why you asked the questions.

Where you want to give the candidate written questions, this form could also be used.

Record of questions and candidate's answers

Unit	VR322 — Apply Insulation and Finishes to Cylindrical and Flat Surfaces
Element(s)	PC 1–7
Evidence index number	2
Circumstances of assessment	
Following observation of candidate performance, the following questions were asked to cover the scope of knowledge and understanding which was not confirmed by my observations.	
List of questions and candidate's responses	
Q	What type of information could you find in the Thermal Insulation Specification BS 5970?
A	It could tell me information on the types and range of insulating materials and other components I must use to do my job.
Q	When fitting sheet metal cladding boxes over insulated pipework valves and flanges, why should you fit toggle type fasteners to the boxes for securing?
A	This is to allow any maintenance on the pipe-work flanges and valves. The toggle fasteners allow the boxes to be removable and replaceable after any inspections or maintenance has been completed.
Q	Why did you cover over all the external unfinished pipe-work insulation you were installing with protective polythene sheeting?
A	Heavy rain is forecast tonight. It could cause some damage to the insulation if we don't protect the unfinished work. This is common practice.

Assessor's signature William Campbell **Date** 14/01/2012

Candidate's signature J. Healy **Date** 14/01/2012

Candidate's personal statement

If a personal statement is being used as evidence, it should be completed by the candidate. The statement should record what they did, how and why they chose to carry out an activity or produce work in a certain way. Where other people may have been present during an activity and they may be able to provide witness testimony, the candidate should record how the statement links to other evidence in the column provided.

Personal statement

Date	Evidence index number	Details of statement	Links to other evidence (enter numbers)	Unit, Elements, Performance Criteria, Performance statements, scope covered
14 th Feb 2012	3	<p>About a month ago a delivery of sheet metal fabricated fittings and thermal insulation on pallets arrived on-site. The foreman was off work at a funeral that day so I checked the driver's delivery note and ensured he was delivering what we needed on site. I directed him to the laydown area and on checking the order I noticed that a full pallet of pipe-work insulation sections were badly damaged so I brought this to the drivers attention. As a result these were then left on the lorry and returned back to the warehouse. I also informed the site manager about this to make sure we did not get charged for the returned damaged goods.</p> <p>I made sure the items which had been delivered were neatly stacked and ready to be distributed out on the job. I also made sure I was not causing an obstruction on the site. After everything was unloaded I signed the delivery note and handed it to the foreman when he returned to work the next day. The foreman says he will confirm this to you if necessary.</p>	Witness testimony by John Maberley, Site Manager (4)	Unit VR643 PC 1–5

Candidate's signature J. Healy Date 14th Feb 2012

Witness testimony

Remember when you begin to use witness testimony that it must be capable of being authenticated — even if the testimony itself is being used to authenticate a candidate's claim to competence.

To make sure the witness testimony is genuine, you must ensure that you have a record of who is acting as a witness, their relationship to the candidate (eg supervisor, client) address, telephone number and the date. There are spaces for this information in the form.

Witness testimony

SVQ title and level	SVQ2 Thermal Insulation (Construction) SCQF level 5
Candidate's name	John Healy
Evidence index no	4
Index no of other evidence which this testimony relates to (if any)	3
Element(s)	Unit VR643 PC 1–5
Date of evidence	11/12/2010
Name of witness	John Maberley
Designation/relationship to candidate	Site Manager
Details of testimony	
<p>John has worked under my supervision on a variety of sites for about four years now. I can't remember him ever being off work and I can rely on him under all circumstances. He is one of the best Thermal Insulators in our company. He recently had to deal with a situation which happened when the Foreman Insulator, Davie Watt, was off work attending a funeral. A large amount of pre-fabricated insulation fittings and insulation materials had arrived on-site that day. This had been ordered by me from the off-site warehouse a week earlier. There was a variety of fittings and various pipe-work insulation section sizes in the order.</p> <p>In Davie's absence, John took full responsibility for taking delivery of the insulation and sheet metal and directing the driver to the store lay-down area. He checked the delivery note and confirmed one of the pallets containing a batch of insulation had been badly damaged and was really unfit for purpose. This pallet of material was rejected and returned back to the warehouse. John signed the driver's delivery note stating damaged items had been returned. I received the delivery note from Davie, our foreman, the next day.</p>	

I can confirm the candidate's performance was satisfactory.

Witness's signature John Maberley **Date** 18 Jan 2012

Witness (please select the appropriate box):

- Holds L and D Unit 9D/9D1, A1/A2 or D32/D33 qualifications
- Is familiar with the SVQ standards to which the candidate is working

Filling the gaps

There may come a time when your candidate has provided evidence for most of the Unit (or SVQ), but there are some gaps. For example, you may find that certain situations, such as handling contingencies, have not arisen during assessment. Often these will relate to dealing with health and safety issues, or unexpected problems with workflow like delays in receiving information from another part of the organisation.

In this SVQ, such gaps are likely to occur in generating evidence for:

- ◆ Confirm Work Activities and Resources for the Work.
- ◆ Develop and Maintain Good Working Relationships.

You may be able to overcome these by:

- ◆ Simulation and Questioning or secondment to another part of the organisation. It may be necessary, in extreme cases, to find another organisation which can provide the relevant experience for candidates to generate the required evidence.

Guidance and support to candidates

At all times during the assessment process — from planning through to making your assessment decision — feedback should be on-going, clear and constructive. Feedback should be given against the national standards by relating it to the evidence provided, including the knowledge specifications.

Where there are any shortfalls in a candidate's competence, you should discuss these with your candidate and make plans for re-assessment.

Judging candidate evidence and making an assessment decision

In judging candidate evidence, you must be satisfied that your candidates can work consistently to the required standard, and that the evidence they have produced is their own. You must consider whether your candidate understands and applies the knowledge evidence and how this links to performance evidence.

Evidence must:

- ◆ be relevant to the SVQ
- ◆ be authentic
- ◆ show current competence
- ◆ be sufficient to help you form a decision about the candidate's competence

Insufficient evidence

You have to judge whether the candidate has produced enough evidence required by the standards for you to reach a decision about their evidence.

Where there is insufficient evidence, you should say this to your candidate. You should tell them that it is not that they are not yet competent — there is simply not enough evidence on which to make a decision.

In this situation, your feedback to your candidates must help them produce more evidence and/or plan for further assessment.

Authenticating candidates' evidence

Authentication is required where you have not observed candidates' performance at first hand.

You can check whether a candidate has produced evidence which they claim shows their competence by questioning them or, if this is appropriate, asking them to produce a personal statement, using witness testimony, or seeking peer reports from other colleagues of the candidate.

Example

Authentication will be required when a candidate has produced evidence that could, on the face of it, have been produced by anyone else.

For example, a candidate who was working as a member of a team could have claimed to have applied insulation to radius bends and tee branches, installed protective sheet metal cladding to the pipe-work, bends and tee branches and measured cut and fitted insulated valve and flange cover boxes and sealed on completion with mastic.

4 Recording achievement

You should retain all evidence — clearly referenced — for internal and external verification.

The candidate's evidence is normally kept in a file, often called a *portfolio*. These documents help you and your candidates to collect, present and cross-reference the evidence to the national standards. They are also a means of recording your assessment decisions, and they tell an External Verifier what stage a candidate has reached in achieving the SVQ.

In a Thermal Insulation SVQ, it is strongly recommended that you use these nationally devised recording documents. If you choose to use your own recording material this has to be approved by us.

Recording documents do not need to be paper-based — it is possible to use an electronic format for collecting and structuring the evidence. Whatever format you and your candidates choose to use, the documents must show what evidence was generated, the assessment decisions you made, how the evidence meets the standards, and where the evidence can be located. You should avoid photocopying items simply to put them in a portfolio — a clear explanation of where the evidence can be found (for example, in a filing cabinet) may be sufficient for the External Verifier to follow it up and include it in the visit.

There are various reasons why record-keeping is so important:

- ◆ it provides a way of tracking a candidate's progress in achieving an SVQ
- ◆ it helps candidates to make claims for certification of their competence
- ◆ internal verifiers and External Verifiers use the records to sample assessment decisions
- ◆ it helps us to monitor the quality assurance of our qualifications

If your candidates' evidence is incomplete, or cannot be located, or if there is inaccurate cross-referencing to the standards, there is a risk that an internal verifier or External Verifier will be unable to confirm your assessment decisions.

To help you and your candidate present evidence and record your assessment decision, we have provided examples of the forms which you and your candidate might use to compile the portfolio.

- ◆ Completing the Unit progress record
- ◆ Using the evidence index
- ◆ Completing the Element achievement record

These forms are also used in SQA's portfolio.

Completing the Unit progress record

You should complete this form each time your candidate achieves a Unit from the SVQ by adding your signature and the date next to the relevant Unit.

At this stage, candidates should make sure they have completed the recording documents correctly and that their evidence can be easily located. Only then should they circle the relevant Unit number at the top of the form. This enables both of you to see at a glance what stage the candidate is at in their SVQ.

Unit progress record

Qualification and level SVQ2 Thermal Insulation (Construction) SCQF level 5

Candidate J.Healy

To achieve the whole qualification, you must prove competence in **4 mandatory** Units and **1 optional** Units.

Unit checklist

Mandatory	VR322	VR641	VR642	VR643			
Optional	VR323	VR324	VR250	VR392			

Mandatory Units achieved

Unit number	Title	Assessor's signature	Date
VR641	Conform to General Workplace Health, Safety and Welfare	<i>William Campbell</i>	10/10/12
VR642	Conform to Productive Work Practices	<i>William Campbell</i>	03/11/12
VR643	Move, Handle or Store Resources		
VR322	Apply Insulation and Finishes to Cylindrical and Flat Surfaces	<i>William Campbell</i>	01/03/12

Optional Units achieved

Unit number	Title	Assessor's signature	Date
VR323	Fabricate Sheet Metal Insulation Protection from Existing Templates	<i>William Campbell</i>	

Using the index of evidence

The purpose of the index of evidence is to help you locate and work through the candidate's evidence. It should give you a summary of what evidence the candidate has collected, and where (eg in a portfolio) it can be found.

The index of evidence should be completed by entering:

- ◆ the index number for each piece of evidence
- ◆ a description of each piece of evidence
- ◆ the place or location where it can be found
- ◆ the initials of the internal verifier and the date (if they have sampled the candidate's evidence)

Ideally, it should be candidates themselves (with your support and encouragement) who complete the index.

You must make sure that the information in the evidence index is accurate when your candidates' portfolios are presented for assessment and verification — particularly the information about where the evidence can be located. This is important because we suggest that anything which has been produced as day-to-day work is kept in its normal location, but anything which has been produced through assessment for the SVQ, eg observation checklists, is filed in the candidate's portfolio. In this way, your candidate can avoid having to photocopy work products just for the sake of including them in a portfolio. It also means that evidence produced as a result of assessment is kept safely in a central file.

If the index of evidence is not completed with an accurate description and location of the evidence, there is a risk that an internal verifier or External Verifier might be unable to confirm your assessment decisions.

Completing the Element achievement record

To help you and your candidates cross-reference the evidence to the standards of the SVQs, we have provided records similar to those produced in the SQA portfolio. Use one record for each Element. The grids should be completed by:

- ◆ entering the evidence index number in the first column
- ◆ giving a brief description of the evidence in the second
- ◆ ticking the relevant boxes for the Performance Criteria (or statements of competence as they are sometimes known)
- ◆ entering the areas of knowledge and understanding the piece of evidence covers

If integrated assessment is used (linking PC or Elements across different Units) the evidence should be cross-referenced back to the relevant Units.

We have provided a completed example to show how to use the record.

Element achievement record

Unit VR322 — Apply Insulation and Finishes to Cylindrical and Flat Surfaces

Element PC 1–7

Evidence Index No	Description of Evidence	PC/performance statements							Areas of knowledge and understanding/scope																
		1	2	3	4	5	6	7	1	2	3	4	5	6											
1	Direct observation of candidate applying insulation and finishes on site by assessor	✓	✓	✓	✓	✓	✓	✓																	
2	Written and oral questions								✓	✓	✓	✓	✓	✓											

Unit VR322 — Apply Insulation and Finishes to Cylindrical and Flat Surfaces

Element PC 1–7

Notes/Comments

John carried out the work in a professional manner. He planned ahead and ensured he had all the fabrication fittings at hand and in order of sequence before commencing work and communicated very clearly with the general assistants who were helping him on the job to place everything where it would be fitted. He kept the working area around him clean and tidy throughout and did a final clean up at the end of the shift. He covered any exposed external pipe-work insulation with polythene before leaving the scaffold at the end of the day.

The candidate has satisfied the assessor and internal verifier that the performance evidence has been met.

Candidate's signature J. Healy **Date** 26/03/2012

Assessor's signature William Campbell **Date** 26/03/2012

Internal verifier's signature Jim Flynn **Date** 26/03/2012

5 Further information

What else should I read?

The publications listed here provide additional information on how to implement SVQs. Details of these and other SQA publications are available on our website at **www.sqa.org.uk** on the 'Publications, Sales and Downloads' section. They can be ordered from SQA's Business Development and Customer Support Team — telephone 0303 333 0330. Please note that there may be a charge for some of these publications.

Assessor/Verifier Units: assessment guidance

External Verification: A Guide for Centres

Guide to Assessment

Introduction to Assessment Arrangements for Schools and Colleges

SQA's Quality Framework: a guide for centres

Operational Help Centre

The Operational Guide for Centres has been replaced by the online Operational Help Centre on **www.sqa.org.uk**

Appendix 1: Blank recording forms

Unit progress record

Qualification and level _____

Candidate _____

To achieve the whole qualification, you must prove competence in xx **mandatory** Units and xx **optional** Units.

Unit Checklist

Mandatory									
Optional									

Mandatory Units achieved

Unit number	Title	Assessor's signature	Date

Optional Units achieved

Unit number	Title	Assessor's signature	Date

Unit

Element

Notes/Comments

The candidate has satisfied the assessor and internal verifier that the performance evidence has been met.

Candidate's signature _____ **Date** _____

Assessor's signature _____ **Date** _____

Internal verifier's signature _____ **Date** _____

Assessment plan

Units					
Elements					
Activities	Performance Criteria (PC)	Method of assessment/ Sources of evidence	Date of assessment	Evidence already available	Links to other Units (Performance Criteria and Range)
Questioning for knowledge and understanding not apparent from performance to be identified from 2nd review					

Assessor's signature _____ **1st review due** _____
Candidate's signature _____ **2nd review due** _____
Date of agreement _____ **Date of completion** _____

Personal statement

Date	Evidence index number	Details of statement	Links to other evidence (enter numbers)	Unit, Elements, Performance Criteria, Performance statements, scope covered

Candidate's signature _____ **Date** _____

Observation record

Unit/Element(s) _____
Candidate _____
Evidence index number _____
Date of observation _____

Skills/activities observed	Performance Criteria covered

Knowledge and understanding apparent from this observation

Other Units/Elements to which this evidence may contribute

Assessor's comments and feedback to candidate

I can confirm the candidate's performance was satisfactory.

Assessor's signature _____ **Date** _____

Candidate's signature _____ **Date** _____

Witness testimony

SVQ title and level	
Candidate's name	
Evidence index no	
Index no of other evidence which this testimony relates to (if any)	
Element(s)	
Date of evidence	
Name of witness	
Designation/relationship to candidate	
Details of testimony	

I can confirm the candidate's performance was satisfactory.

Witness's signature _____ **Date** _____

Witness (please select the appropriate box):

- Holds L and D Unit 9D/9D1, A1/A2 or D32/D33 qualifications
- Is familiar with the SVQ standards to which the candidate is working

Record of questions and candidate's answers

Unit	
Element(s)	
Evidence index number	
Circumstances of assessment	
List of questions and candidate's responses	
Q	
A	

Assessor's signature _____ **Date** _____

Candidate's signature _____ **Date** _____