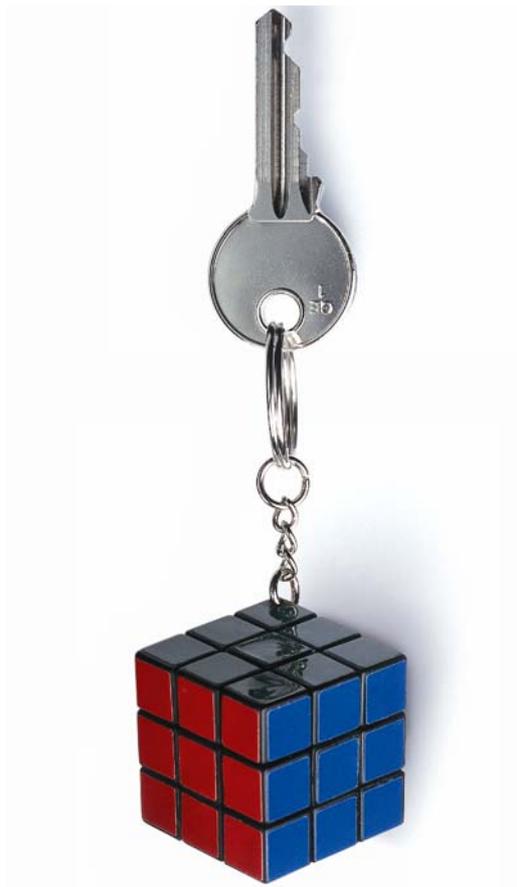


Level 3 Key Skills in Problem Solving

2004 standard and logbook



Please complete the following:

Your name

Programme start date

Date registered for key skills qualifications

City & Guilds enrolment number

Date of portfolio completion

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More information about key skills is available from the City & Guilds key skills website – www.key-skills.org

Introduction

How do I use this logbook?

This logbook will help you work toward the key skill of Problem Solving at level 3. It contains the following:

- national standard (as published by QCA, ACCAC and CCEA, the qualification regulatory authorities for England, Wales and Northern Ireland)
- Part A coverage record sheets
- Part B evidence record sheets.

The coverage and evidence record sheets are designed to help you to track your progress and organise your portfolio so that your assessor/tutor can determine with you when you have met the required standard.

Standards and guidance document

Further examples and guidance on the key skills standards can be found in 'The Wider Key Skills Standards and Guidance' (QCA publication QCA/04/1294). Your assessor/tutor **must** have a copy of this document.

Part A question

The 2004 standard wider key skills are available as pilot qualifications within the National Qualifications Framework. As well as producing your portfolio (which must cover all the requirements set out in Part B of the standard), you may also need to respond to a generic question to confirm that you know how to use the knowledge and understanding listed in Part A of the standard.

The Part A question is contained in a separate document that will be given to you once your portfolio is complete; the questioning process only needs to cover the points within Part A that have not been explicitly shown in your portfolio. The amount of detail you need to give will therefore depend on how your portfolio has been put together; you should discuss this with your assessor/tutor.

Your response to the Part A question will be assessed by your assessor/tutor. A record of your response must be kept with this logbook so it can be checked by the internal verifier and external verifier.

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Problem Solving level 3 standard

The key skills are the skills which are most commonly needed to succeed in a range of activities – at work, in education and training and in everyday life. In developing the key skill of Problem Solving, you will learn to use and adapt your skills confidently and effectively in a range of settings and contexts.

Progression

The key skills qualifications are designed to enable you to progress at your own pace. Each level of the key skill above level 1 incorporates and builds on the previous ones. The key skills qualifications not only recognise your current capabilities, they also require you to identify how you can further improve your skills to meet new demands at higher levels.

Part A

You need to know how to

This section tells you about the techniques and knowledge associated with each key skill. It tells you what you need to learn and practise to feel confident about applying these skills in your studies, work or other aspects of your life.

Part B

You must

This section builds on Part A and describes the application of skills. It describes the skills you must show. All of your work for this section will be assessed. You must have evidence that you can do all the things listed in the bullet points.

To achieve Problem Solving at level 3, you must be able to apply your skills to suit different purposes. You will show that you can:

- identify and analyse the problem
- plan your chosen way of solving the problem
- review your approach to problem solving.

Part A – you need to know how to:

Explore a problem and identify ways of tackling it

- identify, analyse and accurately describe the problem:
 - recognise when a problem exists
 - use different methods to analyse the problem, including breaking it down into manageable sub-problems (simplifying), investigating its effects on other people (broadening its focus), looking at the problem from different viewpoints, checking if the problem changes from place-to-place or over time (reframing) and comparing it with similar problems
 - describe each sub-problem and the factors that affect these
- agree with others (those affected by the problem, your line manager or specialist) how you will know the problem has been solved
- select and use a variety of methods, such as written, visual, numerical and physical techniques, your imagination and creative ideas from working with others, to come up with different ways of tackling the problem
- compare the main features, including value (pay-off), and risks (likelihood and consequences of failure) of each approach and use this information to justify the method you decide to use.

Plan and implement a way of solving the problem

- plan your chosen way of solving the problem to include:
 - resources, methods, the sequence of steps to be taken and time-line, including points for checking progress
 - the necessary action to meet health and safety procedures and other regulations, and ways to overcome difficulties
- get the go-ahead to implement your plan from a person who has expertise in your problem-solving area and authority, such as your line manager or specialist
- put your plan into action, make judgements about when support and feedback would be helpful from others, such as those affected by the problem and specialists, and use this effectively to help tackle the problem
- look at your plan regularly to check progress and to decide on any necessary revisions to your approach.

Check if the problem has been solved and review approach to problem solving

- identify methods for checking the problem has been solved, such as testing, measuring, observing, inspecting and sampling methods, and agree with a person who has expertise in your problem solving area and authority, such as your line manager or specialist, the methods you will use
- apply these methods systematically to check if the problem has been solved
- describe fully the results and draw conclusions on how successful you were
- review the strengths and weaknesses of each stage of your approach, including whether other approaches might have proved more effective.

Part B – you must:

Provide at least **one** example of meeting the standard for PS3.1, PS3.2 and PS3.3. The example should include exploring at least **three** different ways of tackling a problem (for PS3.1).

Evidence must show you can:

PS3.1

Explore a problem and identify different ways of tackling it.

-
- 3.1.1 identify, analyse and accurately describe the problem, and agree with others how you will know it has been solved
 - 3.1.2 select and use a variety of methods to come up with different ways of tackling the problem
 - 3.1.3 compare the main features and risks of each approach, and justify the method you decide to use.
-

PS3.2

Plan and implement at least one way of solving the problem.

-
- 3.2.1 plan your chosen way of solving the problem and get the go-ahead from an appropriate person
 - 3.2.2 put your plan into action, effectively using support and feedback from others to help tackle the problem
 - 3.2.3 check regularly progress towards solving the problem, revising your approach as necessary.
-

PS3.3

Check if the problem has been solved and review your approach to problem solving.

-
- 3.3.1 apply systematically methods agreed with an appropriate person, to check if the problem has been solved
 - 3.3.2 describe fully the results and draw conclusions on how successful you were in solving the problem
 - 3.3.3 review your approach to problem solving, including whether other approaches might have proved more effective.
-

Examples and guidance

The following gives further guidance and examples of the techniques and knowledge in Part A

Explore a problem and identify different ways of tackling it

Identify, analyse and accurately describe a problem by, for instance, identifying the gap between the current situation and what is desirable.

Select and use a variety of different ways of tackling the problem and investigate how others are affected, compare with similar problems.

Plan and implement a way of solving the problem

Plan your chosen way of solving the problem using techniques such as flow charts, time lines, and check out your plan with a supervisor or tutor.

Put your plan in action, check progress regularly, for instance against time lines, resources allocated.

Check if the problem has been solved and review approach to problem solving

Describe your results and draw conclusions by stating to what extent the problem was solved and the level of satisfaction of others.

Review the strengths and weaknesses of each stage of your approach by checking how well you followed the plan, any adaptations to the plan, any side effects from your actions.

For further examples and guidance on the key skills standards please refer to 'The Wider Key Skills Standards and Guidance' (QCA publication QCA/04/1294).

Help with producing evidence

If producing certain types of evidence is difficult for you because of a disability or for another reason, please discuss this with your assessor/tutor. It may be possible for you to produce evidence using alternative methods. Depending on the skill and level, these may include the use of a scribe (amanuensis); Braille, voice activated software and British Sign Language.

Detailed guidance is available in the document 'Basic and Key Skills: Guidance for Candidates with Particular Requirements', published by the Joint Council for Qualifications. A summary of this information can also be found in the City & Guilds key skills centre guide k, and both documents can be obtained from the City & Guilds key skills website – www.key-skills.org

Please ask your assessor/tutor if you have any questions about this.

This standard is for use in programmes starting from September 2004.

Part A coverage record (continued)

Standard	✓ if you feel you have done it	Notes/comments or referred to Part A question
<p>Plan and implement a way of solving the problem</p> <ul style="list-style-type: none"> • plan your chosen way of solving the problem to include: <ul style="list-style-type: none"> – resources, methods, the sequence of steps to be taken and time-line, including points for checking progress <input type="checkbox"/> – the necessary action to meet health and safety procedures and other regulations, and ways to overcome difficulties <input type="checkbox"/> • get the go-ahead to implement your plan from a person who has expertise in your problem-solving area and authority, such as your line manager or specialist <input type="checkbox"/> • put your plan into action, make judgements about when support and feedback would be helpful from others, such as those affected by the problem and specialists, and use this effectively to help tackle the problem <input type="checkbox"/> • look at your plan regularly to check progress and to decide on any necessary revisions to your approach. <input type="checkbox"/> 		

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Key skills 2004 logbook – Problem Solving level 3

Part B evidence record

Standard	✓ if met	Purpose of task and details of evidence presented to meet criteria	Evidence location/reference	Date of completion
Overall <ul style="list-style-type: none">• Provided at least one example of meeting standard for PS3.1, PS3.2 and PS3.3.	<input type="checkbox"/>			

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Key skills 2004 logbook – Problem Solving level 3

Part B evidence record (continued)

Standard	✓ if met	Purpose of task and details of evidence presented to meet criteria	Evidence location/reference	Date of completion
<p>PS3.1</p> <ul style="list-style-type: none"> • Explored a problem <input type="checkbox"/> • identified, analysed and accurately described problem <input type="checkbox"/> • agreed with others how known that it has been solved <input type="checkbox"/> • selected and used a variety of methods to come up with at least three different ways of tackling the problem <input type="checkbox"/> • compared main features and risks of first way to tackle problem <input type="checkbox"/> • compared main features and risks of second way to tackle problem <input type="checkbox"/> • compared main features and risks of third way to tackle problem <input type="checkbox"/> • justified method decided upon. <input type="checkbox"/> 				

See next page

Key skills 2004 logbook – Problem Solving level 3

Part B evidence record (continued)

Standard	✓ if met	Purpose of task and details of evidence presented to meet criteria	Evidence location/reference	Date of completion
<p>PS3.2</p> <ul style="list-style-type: none"> • Planned at least one chosen way of solving the problem • got go-ahead from an appropriate person • put plan into action • effectively used support and feedback from others to help tackle problem • checked progress towards solving problem regularly • revised approach as necessary. 	<input type="checkbox"/> <input type="checkbox"/>			

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Key skills 2004 logbook – Problem Solving level 3

Part B evidence record (continued)

Standard	✓ if met	Purpose of task and details of evidence presented to meet criteria	Evidence location/reference	Date of completion
PS3.3 <ul style="list-style-type: none"> • Checked if the problem has been solved <input type="checkbox"/> • applied systematically methods agreed with an appropriate person to check if the problem has been solved <input type="checkbox"/> • described fully the results <input type="checkbox"/> • drawn conclusions on how successful approach was in solving problem <input type="checkbox"/> • reviewed own approach to problem solving, including whether other approaches might have been more effective. <input type="checkbox"/> 				

Assessor declaration: I declare that the details above are correct, that the evidence submitted is the candidate's own work and that the candidate meets all of the requirements for this key skill.

Assessor's name _____ Assessor's signature _____ Date _____

Candidate's name _____ Candidate's signature _____ Date _____

Internal Verifier's name _____ Internal Verifier's signature _____ Date _____

Note Part A coverage must also be confirmed (using the Part A question as necessary) before a qualification certificate can be claimed.

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