

KEY SKILLS

Problem solving Level 2

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 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 2 you must be able to apply your skills to suit different purposes. You will show that you can:

- accurately describe the problem
- plan what you need to do to solve the problem
- identify way of improving your problem solving skills.

Part A

YOU NEED TO KNOW HOW TO:

Help identify a problem and identify different ways of tackling it

- work with an appropriate person, such as your tutor or supervisor, to help identify a problem, by providing an accurate description of its main features:
 - what is known and not known about the problem
 - how it affects you and other people
- identify how you will know the problem has been solved:
 - find out the results people expect from tackling the problem
 - find out about methods you could use to check it has been solved
- come up with different ways of tackling the problem:
 - learn about different methods for solving problems and how similar problems have been solved
 - find out about the risks (the likelihood of things going wrong) and other factors that might affect the way you tackle the problem (time and expertise needed, health and safety rules)
 - decide what could help to solve your problem.

Plan and try out a way of solving the problem

- confirm with an appropriate person, such as your tutor, supervisor or other person in authority, how you will try to solve the problem, adapting your ideas if necessary to meet rules and regulations
- plan what you need to do, identifying:
 - resources you will use (materials, tools, equipment, information and support from others)
 - the methods, steps and time-line for working through the problem, including ways of overcoming difficulties
 - health and safety procedures
- use your plan effectively, taking responsibility, when needed, for:
 - health and safety
 - getting support from your supervisor or other person with relevant expertise
 - keeping track of the steps taken in tackling the problem and revising your plan to deal with unexpected events.

Check if the problem has been solved and identify ways to improve problem solving

- learn how to use the methods you have been given for checking if the problem has been solved and use these accurately
- describe clearly the results of your checking, including the strengths and weaknesses of how you tackled the problem at each stage
- identify ways of improving your problem solving skills.

Part B

YOU MUST:

Provide at least two examples of meeting the standard for PS2.1, PS2.2 and PS2.3. **Each** example should cover a different problem and identify at least two different ways of tackling it (for PS2.1).

PS2.1

Identify a problem, with help from an appropriate person, and identify different ways of tackling it.

Evidence must show you can:

- 2.1.1 provide information to help identify a problem, accurately describing its main features
- 2.1.2 identify how you will know the problem has been solved
- 2.1.3 come up with different ways of tackling the problem.

PS2.2

Plan and try out at least one way of solving the problem.

- 2.2.1 confirm with an appropriate person how you will try to solve the problem
- 2.2.2 plan what you need to do, identifying the methods and resources you will use
- 2.2.3 use your plan effectively, getting support and revising your plan when needed to help tackle the problem.

PS2.3

Check if the problem has been solved and identify ways to improve problem solving skills.

- 2.3.1 check if the problem has been solved by accurately using the methods you have been given
- 2.3.2 describe clearly the results, including the strengths and weaknesses of how you tackled the problem
- 2.3.3 identify ways of improving your problem solving skills.

EXAMPLES AND GUIDANCE

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

HELP IDENTIFY A PROBLEM AND IDENTIFY DIFFERENT WAYS OF TACKLING IT

Help identify a problem by looking at different parts of the problem, if the problem changes at different times or places.

Come up with different ways of tackling the problem by sharing ideas, using written material, making a simple model.

PLAN AND TRY OUT A WAY OF SOLVING THE PROBLEM

Plan what you need to do and check with your supervisor or tutor.

Use your plan effectively, keeping track of the steps taken and sequence tasks, take account of time and resources needed and plan ways round possible obstacles.

CHECK IF THE PROBLEM HAS BEEN SOLVED AND IDENTIFY WAYS TO IMPROVE PROBLEM SOLVING

Describe your results including strengths and weaknesses of how you tackled the problem, stating if you stayed within the limits of time and resources identified in your plan.

Identify ways of improving your problem solving skills by asking others and reviewing the level of success you had.

For further examples and guidance on the key skills standards please refer to *The Key Skills Standards and Guidance* (order ref: QCA/04/1272).

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 tutor or supervisor. It may be possible for you to produce evidence using alternative methods. Depending on the skill and level, these may include 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. This is available from your key skills awarding body.

Please ask your tutor or supervisor for further guidance.

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Problem solving: level 2