

## KEY SKILLS

# Application of number 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 application of number, you will learn to use and adapt your number 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. They build on the adult numeracy standards, which provide further detail of the skills needed to achieve the application of number key skill at levels 1 and 2. Each level of the key skill 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 number 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 application of number at level 2, you must be able to apply your number skills to suit different purposes. You will show that you can:***

- interpret information from two sources
- use your information to carry out calculations
- interpret the results of your calculations and present your findings.

# Part A

## YOU NEED TO KNOW HOW TO:

### *Interpret information*

- get relevant information from different sources (*eg from written and graphical material, first-hand by measuring or observing*)
- read and understand tables, charts, graphs and diagrams
- read and understand numbers used in different ways, including negative numbers (*eg for losses in trading, low temperatures*)
- estimate amounts and proportions
- read scales on a range of equipment to given levels of accuracy (*eg to the nearest 10mm or nearest inch*)
- make accurate observations (*eg count the number of customers per hour*)
- select appropriate methods to get the results you need, including grouping data when this is appropriate (*eg heights, salary bands*).

### *Carry out calculations*

- carry out calculations involving two or more steps, with numbers of any size with and without a calculator
- show clearly your methods of carrying out calculations and give the level of accuracy of your results
- work with and convert between fractions, decimals and percentages
- convert measurements between systems (*eg from pounds to kilograms, between currencies*)
- work out areas and volumes (*eg area of an L-shaped room, number of containers to fill a given space*)
- work out dimensions from scale drawings (*eg using a 1:20 scale*)
- use proportion and calculate using ratios where appropriate
- compare sets of data of an appropriate size such as 20 items each (*eg using percentages, using mean, median, mode*)
- use range to describe the spread within sets of data
- understand and use given formulae (*eg for calculating volumes, areas such as circles, insurance premiums,  $V=IR$  for electricity*)
- check your methods in ways that pick up faults and make sure your results make sense.

### *Interpret results and present your findings*

- select effective ways to present your findings
- construct and use tables, charts and graphs and label with titles, scales, axes, and keys as appropriate
- highlight the main points of your findings and describe your methods
- describe what your results tell you and how they meet your purpose.

## Application of number: level 2

# Part B

## YOU MUST:

Carry out at least one activity that includes tasks for all three of N2.1, N2.2 (a or b or c or d) and N2.3\*.

### Overall, through one or more activities you must:

- use two different sources which include material containing a chart or graph (N2.1)
- do calculations for a, b, c and d (N2.2)
- present findings in two different ways using charts, graphs or diagrams (N2.3).

#### N2.1

Interpret information from a suitable source.

### *Evidence must show you can:*

- 2.1.1** choose how to get the information you need to meet the purpose of your activity
- 2.1.2** obtain relevant information
- 2.1.3** choose appropriate methods to get the results you need.

#### N2.2

Use your information to carry out calculations to do with:

- a amounts or sizes
- b scales or proportion
- c handling statistics
- d using formulae.

- 2.2.1** carry out calculations, clearly showing your methods and levels of accuracy
- 2.2.2** check your methods to identify and correct any errors, and make sure your results make sense.

#### N2.3

Interpret the results of your calculations and present your findings.

- 2.3.1** select effective ways to present your findings
- 2.3.2** present your findings clearly using a chart, graph or diagram and describe your methods
- 2.3.3** use more than one way of presenting your findings
- 2.3.4** describe what your results tell you and how they meet your purpose.

\*If you need to carry out additional activities to meet all the requirements of N2.2 (a,b,c,d) each activity must include tasks for N2.2 and N2.3 or N2.1 and N2.2

## Application of number: level 2

# EXAMPLES AND GUIDANCE

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

## INTERPRET INFORMATION

Use information from different sources – written and graphical material, read and understand numbers used in different ways, such as losses in trading, low temperatures. Estimate, read scales, make observations, group data such as heights, salary bands.

## CARRY OUT CALCULATIONS

Carry out calculations involving at least two steps, using numbers of any size, use decimals fractions and percentages.

Convert from one measuring system to another such as from pounds to kilograms.

Compare data, use range to describe the spread of sets of data for instance using mean, median and mode. Use formulae for working out things such as areas, volumes.

## INTERPRET RESULTS AND PRESENT FINDINGS

Use tables, charts and graphs to present information correctly highlighting your findings and describing your results.

For further examples and guidance on the key skills standards please refer to *The Key Skills Standards and Guidance* (order ref: QCA/04/1272). The adult numeracy standards also provide help and guidance for preparing candidates for the application of number key skill at levels 1 and 2.

## 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 reader (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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