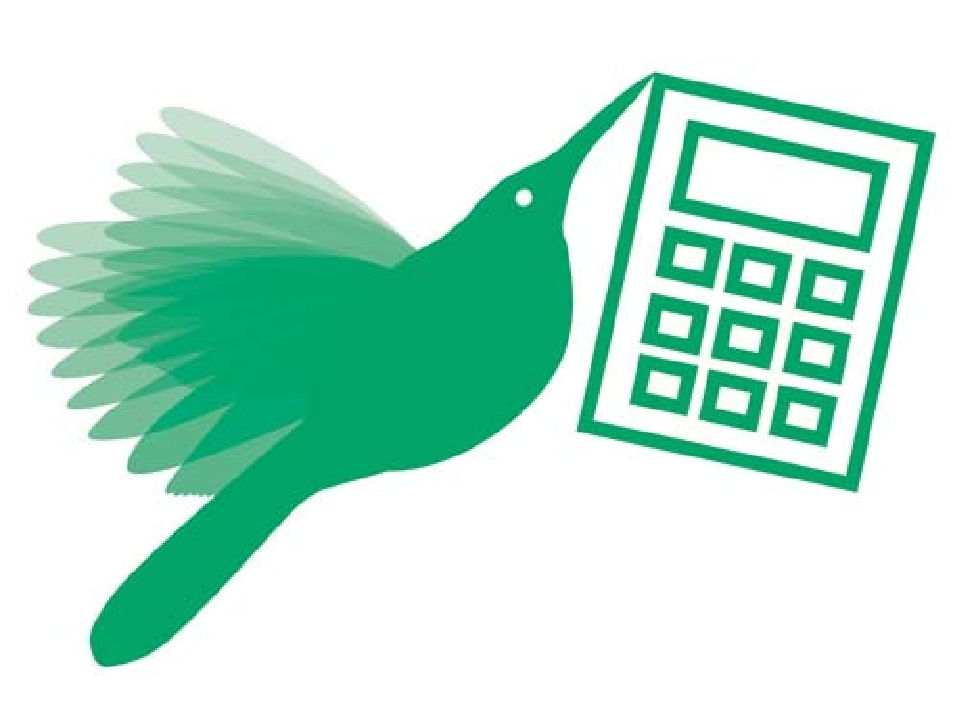
**Level 2 Essential Skills Wales in**

**Application of Number (3768)**

**Candidate logbook**

500/7620/6



www.cityandguilds.com September 2010 Version 1.1



Your name:

City & Guilds enrolment number:

Unique Learner Number (ULN):

Date of registration for 3768:

Date portfolio started:

Date portfolio completed:

Assessor’s name: Internal verifier’s name:

**1 How do I use this logbook?**

This logbook will help you work towards Level 2 Essential Skills Wales in Application of Number. It contains:

* an **evidence record form** detailing the evidence you must provide to complete this qualification. You should use this to record and organise your evidence.
* a **skills checklist** containing all of the skills you need to have in order to show that you are competent. You can use this to help show how you have learnt and gained confidence in these skills.

The evidence and skills requirements for ESW are set out in full in the DCELLS document ‘Essential Skills Wales’. This can be downloaded from  [**www.cityandguilds.com/es**](http://www.cityandguilds.com/esw)**w**. Your assessor/tutor will also be able to explain to you in more detail what you need to do.

**About ESW**

The Essential Skills Wales (ESW) qualifications are designed to help you develop and demonstrate the skills needed to make the most of your learning, work and life.

This qualification will help you improve your **number** skills. You will be required to demonstrate your skills in:

* understanding numerical data
* carrying out calculations
* interpreting results and presenting findings

in order to tackle problems or tasks that you meet in education, training, work and social roles.

**About City & Guilds**

City & Guilds is your awarding organisation for Essential Skills Wales. City & Guilds is the UK’s leading awarding body for vocational qualifications. You may also be working towards other City & Guilds qualifications at the same time as completing ESW and in some cases you may be able to use work completed for those qualifications towards your ESW portfolio.

Information about City & Guilds and our qualifications is available on our website  [**www.cityandguilds.co**](http://www.cityandguilds.com/)**m**.

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**2 Level 2 Essential Skills Wales in Application of Number**

2.1 Evidence record

Your portfolio must include **all** of the following. Please use this sheet to record what your evidence is and where it can be found. The Declarations on page  [5](#page5) **must** be completed

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Standard** | | **Description of** | **Location/** | **Confirmed met and date** |  |
|  |  | **evidence presented** | **reference** | ***(assessor use only)*** |  |
| **Overall** | |  |  | >=1 task covers all |  |
| You must carry out at least one activity that shows your skills in | | |  | three components |  |
| all three components (N2.1, N2.2, N2.3). | | |  | all cover >1 component |  |
| If you need to carry out additional activities to meet all of the | | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| requirements for N2.2 (a, b, c, d) **each** activity must include | | |  |  |
|  |  |  |
| tasks for either N2.1 and N2.2 **or** N.2.2 and N2.3. | | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |  |
|  | |  |  |  |  |
| **N2.1.1** | |  |  | >=1 prob ID/described |  |
| Help to identify and describe at | |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| least one practical problem or task | |  |  |  |
|  |  |  |  |
| that involves a range of numerical | |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| data and information. | |  |  |  |
|  |  |  |  |
|  | |  |  |  |  |
| **N2.1.2** | |  |  | plan devised/confirmed |  |
| Confirm with an appropriate | |  |  | includes how to obtain |  |
| person how you plan to tackle it. | |  |  |  |
|  |  | relevant data/info and |  |
|  |  |  |  | sequence for use |  |
|  |  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  | |  |  |  |  |
| **N2.1.3** | |  |  | relevant data/info |  |
| Collect relevant numerical data | |  |  | collected from >=3 |  |
| and information from a range of | |  |  | sources |  |
| sources to meet the purpose of | |  |  | >=1 source collected/ |  |
| your task. | |  |  | recorded by candidate |  |
| Your sources must include at least | |  |  |  |
|  |  | includes >=2 of table/ |  |
| **two** of a table, a chart, a graph or a | |  |  |  |
|  |  | chart/graph/diagram |  |
| diagram. | |  |  |  |
|  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |  |
|  |  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  | |  |  |  |  |
| **N2.2.1** | |  |  | >1 method used to get |  |
| Use appropriate methods to get | |  |  | results needed |  |
| the results you need and explain | |  |  | methods and purpose |  |
| the methods you have used. | |  |  |  |
|  |  | explained |  |
|  |  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  | |  |  |  |  |
| **N2.2.2** | |  |  | relevant data/info from |  |
| Use the data and information you | |  |  | N2.1 used |  |
| have obtained to carry out | |  |  | amounts or sizes |  |
| calculations relevant to your task | |  |  |  |
|  |  | scales or proportions |  |
| to do with: | |  |  |  |
|  |  | handling statistics (incl. |  |
| a) | amounts or sizes |  |  |  |
|  |  | data set comparison) |  |
| b) | scales or proportion |  |  |  |
|  |  | using formulae |  |
| c) | handling statistics |  |  |  |
|  |  | purpose/relevance of |  |
| d) | using formulae. |  |  |  |
|  |  | calcs understood |  |
|  |  |  |  |  |
|  |  |  |  | checked methods/calcs |  |
|  |  |  |  | results chked for sense |  |
|  |  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |  |  |

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Standard** | **Description of** | **Location/** | **Confirmed met and date** |  |
|  | **evidence presented** | **reference** | ***(assessor use only)*** |  |
| **N2.3.1** |  |  | >=1 of chart/graph |  |
| Select two different ways to |  |  | selected |  |
| present your results, using charts |  |  | >=1 of table/diagram |  |
| or graphs, and tables or diagrams |  |  |  |
|  |  | selected |  |
| appropriate to your audience. |  |  |  |
|  |  | appropriateness |  |
|  |  |  |  |
|  |  |  | explained |  |
|  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |  |
| **N2.3.2** |  |  | methods/findings |  |
| Present and explain your methods |  |  | explained effectively |  |
| and findings and explain how they |  |  | meaning described/ |  |
| meet the purpose of your task and |  |  |  |
|  |  | explained in relation to |  |
| are appropriate to your audience. |  |  |  |
|  |  | problem with key points |  |
|  |  |  | emphasised |  |
|  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |  |

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**2 Level 2 Essential Skills Wales in Application of Number**

2.2 Declarations

The candidate and assessor declarations below **must** be completed in all cases.

Candidate name:

**Candidate declaration:**

I confirm that the evidence produced for this portfolio is entirely my own work.

Candidate signature: Date:

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**Assessor declaration:**

I confirm that the candidate has met / not met (as applicable) all of the evidence requirements for this Essential Skills Wales qualification. Assessment is valid, authentic, reliable, current and sufficient.

Assessor signature: Date:

**Internal verifier declaration:**

*(if sampled)*

I confirm that the candidate has met / not met (as applicable) all of the evidence requirements for this Essential Skills Wales qualification. I have internally verified this work.

Internal verifier signature: Date:

**External verifier declaration:**

*(if sampled)*

I confirm that the candidate has met / not met (as applicable) all of the evidence requirements for this Essential Skills Wales qualification. I have externally verified this work.

External verifier signature: Date:

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**2 Level 2 Essential Skills Wales in Application of Number**

2.3 Skills checklist

This checklist is designed to help you show you have learnt all of the skills needed for this qualification. Unlike the Evidence record, this list is not a formal part of your assessment although you and your assessor/tutor should be confident that you can do all of these things by the time you complete your portfolio.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **In order to show you are competent,** | | **Tick if** | **Further guidance** |  |
| **you need to know how to:** | | **you** |  |  |
|  |  | **can** |  |  |
| a) | Work with an appropriate person to |  | **Help to identify** |  |
|  | help you identify and describe the |  | While your teacher/tutor/trainer is likely to give you the |  |
|  | problem or task… |  | outline of a problem or task, you must take part in |  |
| a) | …and confirm how you will tackle it |  | discussions to help clarify and describe it in detail. |  |
| If you choose to tackle a problem of your own, rather |  |
|  |  |  |  |
|  |  |  | than one given by your teacher/tutor/trainer, you must |  |
|  |  |  | take their advice about whether your chosen problem is |  |
|  |  |  | appropriate. |  |
|  |  |  | **Confirm with an appropriate person** |  |
|  |  |  | It is your responsibility to think about how you will tackle |  |
|  |  |  | the problem but you must check with your |  |
|  |  |  | teacher/tutor/trainer that your plan is a good one. |  |
| a) | read, understand and extract |  | **Collect, record** |  |
|  | information from tables, diagrams, |  | You must know how to use suitable equipment for |  |
|  | charts, and simple graphs |  | making accurate measurements and observations, as |  |
| b) | read and understand numbers |  | well as how to interpret a variety of numerical, written |  |
| and graphical material, including tables and charts, in |  |
|  | presented in different ways collect |  |  |
|  |  | order to decide about their relevance to the purpose of |  |
|  | and record data from making |  |  |
|  |  | your activity. You must record measurements and |  |
|  | accurate observations |  |  |
|  |  | observations accurately and in a way that is fit for the |  |
| c) | read scales on a range of equipment |  |  |
| purpose of your task. |  |
|  | to given levels of accuracy |  |  |
|  |  | **Sources** |  |
| d) | use shape and space to record |  |  |
| Sources can include graphical and/or written material (eg |  |
|  | relevant measurements and make |  |  |
|  |  | reference books and journals; organisations that collate |  |
|  | accurate observations |  |  |
|  |  | their own statistical information; the internet; and |  |
| e) | estimate amounts and proportions |  |
| newspapers) and/or direct measurements or |  |
| f) | understand compound measures. |  |  |
| observations, depending on the context in which you are |  |
|  |  |  | working. This material must include at least two of: a |  |
|  |  |  | table, a chart, a simple graph, or a diagram. You must be |  |
|  |  |  | able to read scales, such as 1:2500 on a map. |  |
|  |  |  | **Compound measures** |  |
|  |  |  | You must know how to interpret compound measures (eg |  |
|  |  |  | those presented as ‘something per something’ such as |  |
|  |  |  | milligrams per 100 millilitres, pressure in psi, or miles per |  |
|  |  |  | hour). |  |
| a) | identify and use methods and |  | **Identify and use methods** |  |
|  | calculations that are appropriate for |  | You must consider a range of possible methods (eg look |  |
|  | your task, including grouping data |  | up formulae/ information relating to similar tasks or |  |
|  | when this is appropriate |  | problems), weigh up the pros and cons of alternatives, |  |
|  |  | and choose methods that are appropriate for your |  |
|  |  |  |  |
|  |  |  | purpose and circumstances. |  |
| a) | show clearly your methods of |  | **Carry out calculations** |  |
|  | carrying out calculations and give the |  | Application of Number requires you to show that you can |  |
|  | levels of accuracy of your results • |  | carry out a number of different types of calculations |  |
|  | carry out calculations involving two |  | (amounts or sizes; scales or proportion; handling |  |
|  |  | statistics; using formulae). |  |
|  | or more steps, with numbers of any |  |  |
|  |  |  |  |
|  | size, with and without a calculator |  | ‘Amounts or sizes’ is a single category. ‘Scales or |  |
| b) | use mental arithmetic involving |  | proportion’ is another single category. From each of |  |
| these categories, you must present at least one example |  |
|  | whole numbers and simple fractions |  |  |
|  |  | as evidence. |  |
| c) | work with, and convert between, |  |  |
| You must be able to carry out calculations both with and |  |
|  | fractions, decimals and percentages |  |  |
|  |  | without a calculator. |  |
| d) | calculate with sums of money and |  |  |
| You must show that you can carry out calculations |  |
|  | convert between currencies |  |  |
|  |  | involving two or more steps when working with: |  |
|  |  |  |  |
|  |  |  |  |  |

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **In order to show you are competent,** | | **Tick if** | **Further guidance** | |  |
| **you need to know how to:** | | **you** |  |  |  |
|  |  | **can** |  |  |  |
| e) | calculate, measure and record time |  | a) amounts or sizes, eg when solving problems that | |  |
|  | in different formats |  |  | involve converting between fractions, decimals and |  |
|  |  |  | percentages, different currencies or systems of |  |
| f) | estimate, measure and compare |  |  |  |
|  | measurement; evaluating one number as a fraction |  |
|  | length, weight, capacity and |  |  |  |
|  |  |  | or percentage of another; working out volumes and |  |
|  | temperature using metric and, where |  |  |  |
|  |  |  | areas of composite shapes |  |
|  | appropriate, imperial units calculate |  |  |  |
|  |  | b) | scales or proportion, eg when enlarging shapes by |  |
|  | within a system and between |  |  |
|  |  |  | using a positive whole number scale factor, |  |
|  | systems using conversion tables and |  |  |  |
|  |  |  | calculating ratios such as sharing £60 in the ratio 3:5 |  |
|  | scales, and approximate conversion |  |  |  |
|  |  | c) | statistics, eg when finding the mean, median and |  |
|  | factors |  |  |
|  |  |  | mode (eg from charts showing two weeks’ sales |  |
| g) | recognise and use common 2-D |  |  |  |
|  | results), and using them to compare two sets of |  |
|  | representations of 3-D objects |  |  |  |
|  |  |  | data; finding the range and using it to describe the |  |
| h) | solve problems involving 2-D shapes |  |  |  |
|  | spread within sets of data |  |
|  | and parallel lines |  |  |  |
|  |  | d) | formulae, eg when using given formulae expressed |  |
| i) | work out actual dimensions from |  |  |
|  | in words, as rules (eg ‘length in using symbols (eg cm |  |
|  | scale drawings |  |  |  |
|  |  |  | ÷ 2.54 = I). |  |
| j) | use proportions and calculate using |  |  |  |
| **Levels of accuracy** | |  |
|  | ratios where appropriate |  |  |
|  |  | You must decide what levels of accuracy to work to (eg | |  |
| k) | identify the range of possible |  |  |
| nearest whole number, nearest pound, one place of | |  |
|  | outcomes of combined events |  |  |
|  |  | decimals, etc.) and state what they are. | |  |
|  | through probability and record the |  |  |
|  |  | **Sets of data** | |  |
|  | information using diagrams or tables |  |  |
|  |  | The data sets you work with must be of a size that is | |  |
| l) | compare sets of data of an |  |  |
| appropriate to your task/activity and its purpose. They | |  |
|  | appropriate size, using percentages, |  |  |
|  |  | must be large enough to enable you to make meaningful | |  |
|  | mean/median/mode |  | calculations of mean and/or median and/or mode, and to | |  |
| m) | use range to describe the spread |  | make meaningful comparisons. | |  |
|  |  |  |
|  | within sets of data |  | **Understand and use given formulae** | |  |
| n) | understand and use given formulae |  | You must know how to use formulae that you are given | |  |
| by, for example, substituting values. You do not have to | |  |
| o) | calculate efficiently using whole |  |  |
| create or rearrange formulae. | |  |
|  | numbers, fractions, decimals and |  |  |
|  |  | **Check calculations** | |  |
|  | percentages |  |  |
|  |  | You must always check the accuracy of your calculations. | |  |
| p) | check your methods and calculations |  |
| This is often a mental process and you do not have to | |  |
| q) | identify and correct any errors |  |  |
| produce evidence every time you do it. Where there is a | |  |
| r) | check that your results make sense. |  |  |
| series of calculations of the same type, you must record | |  |
|  |  |  |  |
|  |  |  | evidence of checking at least the first few of each type. | |  |
|  |  |  | For the remainder, accurate results must confirm that | |  |
|  |  |  | you have checked effectively. You must be aware of the | |  |
|  |  |  | importance of checking your results and methods, and be | |  |
|  |  |  | familiar with different methods of carrying out checks. | |  |
|  |  |  | **Check that results make sense** | |  |
|  |  |  | While your results may be based on accurate | |  |
|  |  |  | calculations, they may not ‘make sense’ or be fit for | |  |
|  |  |  | purpose in relation to the problem or task that you have | |  |
|  |  |  | tackled. You must check this. | |  |
| a) | understand what the results of your |  | **Select ways to present** | |  |
|  | calculations mean in the context of |  | You must be able to identify, describe and consider | |  |
|  | your problem or task |  | different ways to present your results (eg graphs, charts, | |  |
| b) | identify and describe appropriate |  | tables, diagrams) to at least two different audiences. You | |  |
| must choose and use the two ways (ie charts and/or | |  |
|  | ways to present your findings to two |  |  |
|  |  | graphs, **and** tables and/or diagrams) that are most | |  |
|  | different audiences, including |  |  |
|  |  | appropriate to your actual audience, and explain your | |  |
|  | numerical, graphical and written |  |  |
|  |  | choice. Evidence that you have considered different ways | |  |
|  | formats |  |  |
|  |  | and that explains your choice must be in the form of | |  |
|  |  |  |  |
|  |  |  | notes, written by hand or electronically. | |  |
| a) | construct tables, charts and graphs, |  | **Present, describe and explain** | |  |
|  | and label with titles, scales, axes and |  | You must be able to describe your methods and explain | |  |
|  | keys appropriate to your purpose |  | how they meet your purpose. | |  |
|  | and audience |  | **Highlight main points** | |  |
| b) | use more than one way to present | You must present your findings in ways that make it easy | |  |
|  | your findings, including numerical, |  | for your audience to identify the main points. | |  |
|  |  |  |  |  |
|  | graphical and written formats |  |  |  |  |
| c) | describe your methods, highlight the |  |  |  |  |
|  | main points of your findings, and |  |  |  |  |
|  | explain how they meet your purpose. |  |  |  |  |

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**T +44 (0)844 543 0033 F +44 (0)20 7294 2413**

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