

# Awards/Certificates in Mathematics Skills (3847- 21/22/23)

January 2013 Version 1.0

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## Qualifications at a glance

<b>Subject area</b>	<b>Mathematics</b>
<b>City &amp; Guilds number</b>	3847
<b>Age group approved</b>	16+
<b>Entry requirements</b>	N/A
<b>Assessment</b>	By portfolio
<b>Fast track</b>	Available
<b>Support materials</b>	Qualification Handbook Candidate Logbook Assessment Pack
<b>Registration and certification</b>	Consult the Walled Garden/Online Catalogue for last dates

### Awards - single units

<b>Title and level</b>	<b>City &amp; Guilds number</b>	<b>Accreditation number (from 1<sup>st</sup> Jan 2013)</b>
Entry Level Award in Number - Whole Numbers to 10 (Entry 1)	3847-21	600/7526/0
Entry Level Award in Number - Addition (Entry 1)	3847-21	600/7308/1
Entry Level Award in Number - Subtraction (Entry 1)	3847-21	600/7309/3
Entry Level Award in Measure, Shape and Space - Money (Entry 1)	3847-21	600/7310/X
Entry Level Award in Measure, Shape and Space - Time (Entry 1)	3847-21	600/7311/1
Entry Level Award in Measure, Shape and Space - Size, Length, Width and Height (Entry 1)	3847-21	600/7517/X
Entry Level Award in Measure, Shape and Space - Weight and Capacity (Entry 1)	3847-21	600/7312/3
Entry Level Award in Measure, Shape and Space - Common Shapes and Positional Vocabulary (Entry 1)	3847-21	600/7313/5
Entry Level Award in Handling Data - Extract and Sort Data (Entry 1)	3847-21	600/7314/7
Entry Level Award in Handling Data - Represent Information (Entry 1)	3847-21	600/7315/9
Entry Level Award in Number - Whole Numbers to 100 (Entry 2)	3847-21	600/7527/2
Entry Level Award in Number - Addition (Entry 2)	3847-21	600/7316/0
Entry Level Award in Number - Subtraction (Entry 2)	3847-21	600/7317/2
Entry Level Award in Number - Fractions (Entry 2)	3847-21	600/7318/4

Entry Level Award in Number - Multiplication (Entry 2)	3847-21	600/7319/6
Entry Level Award in Measure, Shape and Space - Money (Entry 2)	3847-21	600/7528/4
Entry Level Award in Measure, Shape and Space - Time (Entry 2)	3847-21	600/7320/2
Entry Level Award in Measure, Shape and Space - Length (Entry 2)	3847-21	600/7530/2
Entry Level Award in Measure, Shape and Space - Weight, Capacity and Temperature (Entry 2)	3847-21	600/7321/4
Entry Level Award in Measure, Shape and Space - Shapes and Positional Vocabulary (Entry 2)	3847-21	600/7322/6
Entry Level Award in Handling Data - Extract and Sort Data (Entry 2)	3847-21	600/7323/8
Entry Level Award in Handling Data - Collect and Represent Information (Entry 2)	3847-21	600/7324/X
Entry Level Award in Number - Whole Numbers to 1000 (Entry 3)	3847-21	600/7325/1
Entry Level Award in Number - Addition and Subtraction (Entry 3)	3847-21	600/7326/3
Entry Level Award in Number - Fractions (Entry 3)	3847-21	600/7525/9
Entry Level Award in Number - Multiplication (Entry 3)	3847-21	600/7327/5
Entry Level Award in Number - Division (Entry 3)	3847-21	600/7328/7
Entry Level Award in Number - Decimals (Entry 3)	3847-21	600/7338/X
Entry Level Award in Measure, Shape and Space - Money (Entry 3)	3847-21	600/7329/9
Entry Level Award in Measure, Shape and Space - Temperature and Time (Entry 3)	3847-21	600/7330/5
Entry Level Award in Measure, Shape and Space - Length, Weight, Capacity and Shapes (Entry 3)	3847-21	600/7331/7
Entry Level Award in Handling Data - Extract and Use Data (Entry 3)	3847-21	600/7332/9
Entry Level Award in Handling Data - Represent Information (Entry 3)	3847-21	600/7518/1
Level 1 Award in Number - Positive and Negative Numbers	3847-21	600/7519/3
Level 1 Award in Number - Fractions, Ratio and Proportion	3847-21	600/7333/0
Level 1 Award in Number - Decimals	3847-21	600/7522/3
Level 1 Award in Number - Percentages	3847-21	60/7521/1
Level 1 Award in Measure, Shape and Space - Money, Time and Temperature	3847-21	600/7334/2
Level 1 Award in Measure, Shape and Space - Length, Weight and Capacity	3847-21	600/7367/6
Level 1 Award in Measure, Shape and Space - Calculate Using Shape and Space	3847-21	600/7335/4
Level 1 Award in Handling Data - Extract and Interpret Data	3847-21	600/7336/6

Level 1 Award in Handling Data - Collect, Organise and Represent Data	3847-21	600/7337/8
Level 1 Award in Handling Data - Mean and Range	3847-21	600/7345/7
Level 1 Award in Handling Data - Probability	3847-21	600/7339/1
Level 2 Award in Number - Number and Formulae	3847-21	600/7340/8
Level 2 Award in Number - Fractions, Ratio and Proportion	3847-21	600/7341/X
Level 2 Award in Number - Decimals	3847-21	600/7520/X
Level 2 Award in Number - Percentages	3847-21	600/7629/X
Level 2 Award in Measure, Shape and Space - Money, Time and Temperature	3847-21	600/7342/1
Level 2 Award in Measure, Shape and Space - Length, Weight and Capacity	3847-21	600/7343/3
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Level 2 Award in Handling Data - Extract and Interpret Data	3847-21	600/7347/0
Level 2 Award in Handling Data - Collect and Use Data	3847-21	600/7344/5
Level 2 Award in Handling Data - Statistics	3847-21	600/7513/2
Level 2 Award in Handling Data - Probability	3847-21	600/7529/6

## Awards - Themed

<b>Title and level</b>	<b>City &amp; Guilds number</b>	<b>Accreditation number (from 1<sup>st</sup> Jan 2013)</b>
<b>Awards in Mathematics Skills - Number</b>		
Entry Level Award in Mathematics Skills - Number (Entry 1)	3847-23	600/7524/7
Entry Level Award in Mathematics Skills - Number (Entry 2)	3847-23	600/7494/2
Entry Level Award in Mathematics Skills - Number (Entry 3)	3847-23	600/7497/8
Level 1 Award in Mathematics Skills - Number	3847-23	600/7505/3
Level 2 Award in Mathematics Skills - Number	3847-23	600/7508/9
<b>Awards in Mathematics Skills - Measure, Shape and Space</b>		
Entry Level Award in Mathematics Skills - Measure, Shape and Space (Entry 1)	3847-23	600/7492/9
Entry Level Award in Mathematics Skills - Measure, Shape and Space (Entry 2)	3847-23	600/7495/4
Entry Level Award in Mathematics Skills - Measure, Shape and Space (Entry 3)	3847-23	600/7498/X

Level 1 Award in Mathematics Skills - Measure, Shape and Space	3847-23	600/7506/5
Level 2 Award in Mathematics Skills - Measure, Shape and Space	3847-23	600/7366/4

### **Awards in Mathematics Skills - Handling Data**

Entry Level Award in Mathematics Skills - Handling Data (Entry 1)	3847-23	600/7493/0
Entry Level Award in Mathematics Skills - Handling Data (Entry 2)	3847-23	600/7496/6
Entry Level Award in Mathematics Skills - Handling Data (Entry 3)	3847-23	600/7499/1
Level 1 Award in Mathematics Skills - Handling Data	3847-23	600/7507/7
Level 2 Award in Mathematics Skills - Handling Data	3847-23	600/7511/9

### **Certificates**

<b>Title and level</b>	<b>City &amp; Guilds number</b>	<b>Accreditation number (from 1<sup>st</sup> Jan 2013)</b>
<b>Certificates in Mathematics Skills</b>		
Entry Level Certificate in Mathematics Skills (Entry 1)	3847-22	600/7523/5
Entry Level Certificate in Mathematics Skills (Entry 2)	3847-22	600/7515/6
Entry Level Certificate in Mathematics Skills (Entry 3)	3847-22	600/7512/0
Level 1 Certificate in Mathematics Skills	3847-22	600/7514/4
Level 2 Certificate in Mathematics Skills	3847-22	600/7516/8

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# 1 Units

This section of the unit pack provides guidance to support those working with and/or assessing the Mathematics Skills units.

It includes:

- City & Guilds unit name and number
- UAN
- Level
- Credit value
- Recommended guided learning hours (GLH)
- Learning outcomes with related assessment criteria

<b>Unit no.</b>	<b>UAN</b>	<b>Unit level</b>	<b>Unit title</b>	<b>Credits</b>	<b>GLH</b>
010	D/504/5093	Entry 1	Number - whole numbers to 10	2	20
011	H/504/5094	Entry 1	Number - addition	2	20
012	K/504/5095	Entry 1	Number - subtraction	2	20
013	M/504/5096	Entry 1	Measure, shape and space - money	1	10
014	T/504/5097	Entry 1	Measure, shape and space - time	1	10
015	A/504/5098	Entry 1	Measure, shape and space - size, length, width and height	1	10
016	F/504/5099	Entry 1	Measure, shape and space - weight and capacity	1	8
017	K/504/5100	Entry 1	Measure, shape and space - common shapes and positional vocabulary	1	10
018	M/504/5101	Entry 1	Handling data - extract and sort data	2	13
019	T/504/5102	Entry 1	Handling data - represent information	2	20
110	A/504/5103	Entry 2	Number - whole numbers to 100	2	19
111	F/504/5104	Entry 2	Number - addition	1	10
112	J/504/5105	Entry 2	Number - subtraction	1	10
113	L/504/5106	Entry 2	Number - fractions	1	10
114	R/504/5107	Entry 2	Number - multiplication	1	10
115	Y/504/5108	Entry 2	Measure, shape and space - money	2	19
116	L/504/5316	Entry 2	Measure, shape and space - time	1	10
117	R/504/5110	Entry 2	Measure, shape and space - length	1	10
118	Y/504/5111	Entry 2	Measure, shape and space - weight, capacity and temperature	1	10
119	D/504/5112	Entry 2	Measure, shape and space - shapes and positional vocabulary	1	10
120	H/504/5113	Entry 2	Handling data - extract and sort data	2	20
121	K/504/5114	Entry 2	Handling data - collect and represent information	2	16
210	M/504/5115	Entry 3	Number - whole numbers to 1000	2	19
211	T/504/5116	Entry 3	Number - addition and subtraction	1	10
212	A/504/5117	Entry 3	Number - fractions	1	10
213	F/504/5118	Entry 3	Number - multiplication	1	10
214	J/504/5119	Entry 3	Number - division	1	10
215	A/504/5120	Entry 3	Number - decimals	1	9
216	F/504/5121	Entry 3	Measure, shape and space - money	1	10

<b>Unit no.</b>	<b>UAN</b>	<b>Unit level</b>	<b>Unit title</b>	<b>Credits</b>	<b>GLH</b>
217	J/504/5122	Entry 3	Measure, shape and space - temperature and time	1	10
218	R/504/5320	Entry 3	Measure, shape and space - length, weight, capacity and shapes	2	18
219	R/504/5124	Entry 3	Handling data - extract and use data	2	19
220	Y/504/5125	Entry 3	Handling data - represent information	2	16
310	R/504/5219	Level 1	Number - positive and negative numbers	2	20
311	L/504/5221	Level 1	Number - fractions, ratio and proportion	2	18
312	R/504/5222	Level 1	Number - -decimals	1	10
313	D/504/5224	Level 1	Number - percentages	1	10
314	K/504/5226	Level 1	Measure, shape and space - money, time and temperature	1	10
315	M/504/5227	Level 1	Measure, shape and space - length, weight and capacity	1	10
316	R/504/5317	Level 1	Measure, shape and space - calculate using shape and space	2	17
317	M/504/5230	Level 1	Handling data - extract and interpret data	1	9
318	T/504/5231	Level 1	Handling data - collect, organise and represent data	1	6
319	A/504/5232	Level 1	Handling data - mean and range	1	10
320	T/504/5228	Level 1	Handling data - -probability	1	10
410	R/504/5236	Level 2	Number - number and formulae	1	10
411	Y/504/5237	Level 2	Number - fractions, ratio and proportion	2	18
412	J/504/5234	Level 2	Number - -decimals	1	10
413	F/504/5233	Level 2	Number - percentages	2	14
414	H/504/5239	Level 2	Measure, shape and space - money, time and temperature	1	10
415	Y/504/5240	Level 2	Measure, shape and space - length, weight and capacity	1	9
416	D/504/5238	Level 2	Measure, shape and space - shape and space	2	16
417	H/504/5242	Level 2	Handling data - extract and interpret data	1	7
418	T/504/5259	Level 2	Handling data - collect and use data	1	9
419	K/504/5243	Level 2	Handling data - statistics	1	9
420	D/504/5241	Level 2	Handling data - -probability	1	10

## Unit 010

## Number - whole numbers to 10

<b>UAN:</b>	<b>D/504/5093</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	2
<b>GLH:</b>	20
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and is fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in reading, writing and ordering numbers up to ten.

<b>Learning outcome</b>
The learner will: 1. be able to count up to 10 items (N1/E1.1)
<b>Assessment criteria</b>
The learner can: 1.1 state numbers 0 - 10 in order 1.2 count items up to 10 1.3 count on up to 10

<b>Learning outcome</b>
The learner will: 2. be able to read and write numbers up to 10 (N1/E1.2)
<b>Assessment criteria</b>
The learner can: 2.1 write numbers 0 - 10 2.2 read numbers 0 - 10

<b>Learning outcome</b>
The learner will: 3. be able to compare numbers up to 10 (N1/E1.3)
<b>Assessment criteria</b>
The learner can: 3.1 arrange numbers in order of value 3.2 compare numbers

## Unit 011

## Number – addition

<b>UAN:</b>	<b>H/504/5094</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	2
<b>GLH:</b>	20
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and is fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in addition with totals up to ten.

<b>Learning outcome</b>
The learner will: 1. be able to add single digit numbers with totals to 10 (N1/E1.4)
<b>Assessment criteria</b>
The learner can: 1.1 add number of given objects 1.2 state number bonds

<b>Learning outcome</b>
The learner will: 2. be able to interpret + and = in practical situations for solving problems (N1/E1.6)
<b>Assessment criteria</b>
The learner can: 2.1 write signs + and = 2.2 work out problems that include signs + and =

<b>Learning outcome</b>
The learner will: 3. be able to use a calculator to check addition calculations using whole numbers (N1/E1.7)
<b>Assessment criteria</b>
The learner can: 3.1 use a calculator to check addition answers

## Unit 012          Number - subtraction

<b>UAN:</b>	<b>K/504/5095</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	2
<b>GLH:</b>	20
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in subtraction with single digit numbers.

<b>Learning outcome</b>
The learner will: 1. be able to subtract single digit numbers from numbers up to 10 (N1/E1.5)
<b>Assessment criteria</b>
The learner can: 1.1 take away number of given objects 1.2 state subtraction facts

<b>Learning outcome</b>
The learner will: 2. be able to interpret – and = in practical situations for solving problems (N1/E1.6)
<b>Assessment criteria</b>
The learner can: 2.1 write the signs – and = 2.2 work out problems that include signs – and =

<b>Learning outcome</b>
The learner will: 3. be able to use a calculator to check subtraction calculations using whole numbers (N1/E1.7)
<b>Assessment criteria</b>
The learner can: 3.1 use a calculator to check subtraction answers using whole numbers

## Unit 013

## Measure, shape and space - money

<b>UAN:</b>	<b>M/504/5096</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in recognising and selecting coins and notes.

<b>Learning outcome</b>
The learner will: 1. be able to recognise coins (MSS1/E1.1)
<b>Assessment criteria</b>
The learner can: 1.1 identify 1p, 2p, 5p and 10p coins 1.2 identify £1 and £2 coins 1.3 select coins for different contexts

<b>Learning outcome</b>
The learner will: 2. be able to recognise notes (MSS1/E1.1)
<b>Assessment criteria</b>
The learner can: 2.1 identify £5 and £10 notes 2.2 select notes for different contexts

## Unit 014

## Measure, shape and space - time

<b>UAN:</b>	<b>T/504/5097</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with time. Learners will relate familiar events to the time of day, days of the week and seasons.

<b>Learning outcome</b>
The learner will: 1. be able to relate familiar events to times of the day (MSS1/E1.2)
<b>Assessment criteria</b>
The learner can: 1.1 state something usually done in the morning 1.2 state something usually done in the afternoon 1.3 state something usually done in the evening 1.4 give an o'clock time for an activity

<b>Learning outcome</b>
The learner will: 2. be able to relate familiar events to days of the week (MSS1/E1.2)
<b>Assessment criteria</b>
The learner can: 2.1 state the days of the week 2.2 order the days of the week 2.3 state the day of the week an activity occurs

<b>Learning outcome</b>
The learner will: 3. be able to relate familiar events to seasons of the year (MSS1/E1.2)
<b>Assessment criteria</b>
The learner can: 3.1 state the seasons of the year 3.2 state the season in which an event occurs



## Unit 015

## Measure, shape and space - size, length, width and height

<b>UAN:</b>	<b>A/504/5098</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in describing and comparing the size, length, width and height of items.

<b>Learning outcome</b>
The learner will: 1. be able to compare sizes of items (MSS1/E1.3)
<b>Assessment criteria</b>
The learner can: 1.1 use words to describe size 1.2 compare items in terms of size

<b>Learning outcome</b>
The learner will: 2. be able to compare length of items (MSS1/E1.4)
<b>Assessment criteria</b>
The learner can: 2.1 use words to describe length 2.2 compare items in terms of length

<b>Learning outcome</b>
The learner will: 3. be able to compare width of items (MSS1/E1.4)
<b>Assessment criteria</b>
The learner can: 3.1 use words to describe width 3.2 compare items in terms of width

**Learning outcome**

The learner will:

4. be able to compare height of items (MSS1/E1.4)

**Assessment criteria**

The learner can:

- 4.1 use words to describe height
- 4.2 compare items in terms of height

## Unit 016

## Measure, shape and space - weight and capacity

<b>UAN:</b>	<b>F/504/5099</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	1
<b>GLH:</b>	8
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in describing and comparing the weight and capacity of items.

<b>Learning outcome</b>
The learner will: 1. be able to compare weight of items (MSS1/E1.5)
<b>Assessment criteria</b>
The learner can: 1.1 use words to describe weight 1.2 compare items in terms of weight

<b>Learning outcome</b>
The learner will: 2. be able to compare capacity of items (MSS1/E1.6)
<b>Assessment criteria</b>
The learner can: 2.1 use words to describe capacity 2.2 compare items in terms of capacity

## Unit 017

## Measure, shape and space - common shapes and positional vocabulary

<b>UAN:</b>	<b>K/504/5100</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in recognising common shapes and using simple positional vocabulary.

<b>Learning outcome</b>
The learner will: 1. be able to name common 2D shapes (MS2/E1.1)
<b>Assessment criteria</b>
The learner can: 1.1 name common 2D shapes in a range of orientations

<b>Learning outcome</b>
The learner will: 2. be able to name common 3D shapes (MS2/E1.1)
<b>Assessment criteria</b>
The learner can: 2.1 name common 3D shapes in a range of orientations

<b>Learning outcome</b>
The learner will: 3. be able to use everyday positional vocabulary (MS2/E1.2)
<b>Assessment criteria</b>
The learner can: 3.1 recognise words that explain position 3.2 use words that explain position for given situations

## Unit 018

## Handling data - extract and sort data

<b>UAN:</b>	<b>M/504/5101</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	2
<b>GLH:</b>	13
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in extracting simple information and sorting objects using a single criterion.

<b>Learning outcome</b>
The learner will: 1. be able to extract simple information from lists (HD1/E1.1)
<b>Assessment criteria</b>
The learner can: 1.1 select information from lists ordered numerically 1.2 select numerical information from lists ordered in different ways

<b>Learning outcome</b>
The learner will: 2. be able to sort objects using a single criterion (HD1/E1.2)
<b>Assessment criteria</b>
The learner can: 2.1 sort given objects by single criterion

## Unit 019

## Handling data - represent information

<b>UAN:</b>	<b>T/504/5102</b>
<b>Level:</b>	Entry 1
<b>Credit value:</b>	2
<b>GLH:</b>	20
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in presenting information in different formats including simple lists and pictograms.

<b>Learning outcome</b>
The learner will: 1. be able to construct simple lists (HD1/E1.3)
<b>Assessment criteria</b>
The learner can: 1.1 create simple list

<b>Learning outcome</b>
The learner will: 2. be able to represent information numerically (HD1/E1.3)
<b>Assessment criteria</b>
The learner can: 2.1 present information numerically

<b>Learning outcome</b>
The learner will: 3. be able to construct pictorial representations (HD1/E1.3)
<b>Assessment criteria</b>
The learner can: 3.1 represent information pictorially 3.2 create a simple pictogram

## Unit 110

## Number - whole numbers to 100

<b>UAN:</b>	<b>A/504/5103</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	2
<b>GLH:</b>	19
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in reading, writing and comparing whole numbers up to 100. Learners will also count up to 20 and round numbers to the nearest 10.

<b>Learning outcome</b>
The learner will: 1. be able to count up to 20 items (N1/E2.1)
<b>Assessment criteria</b>
The learner can: 1.1 state numbers 0 - 20 in order 1.2 count items up to 20 1.3 count on up to 20

<b>Learning outcome</b>
The learner will: 2. be able to read numbers up to 100 (N1/E2.2)
<b>Assessment criteria</b>
The learner can: 2.1 read numbers 0-100

<b>Learning outcome</b>
The learner will: 3. be able to write numbers up to 100 (N1/E2.2)
<b>Assessment criteria</b>
The learner can: 3.1 write numbers 0-100 in numerals

**Learning outcome**

The learner will:

4. be able to order numbers up to 100 (N1/E2.2)

**Assessment criteria**

The learner can:

- 4.1 arrange numbers in order of value
- 4.2 compare numbers

**Learning outcome**

The learner will:

5. be able to approximate numbers to the nearest 10 (N1/E2.6)

**Assessment criteria**

The learner can:

- 5.1 round numbers to the nearest 10



## Unit 111

## Number - addition

<b>UAN:</b>	<b>F/504/5104</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in addition including two digit numbers.

<b>Learning outcome</b>
The learner will: 1. know addition facts to 10 (N1/E2.4)
<b>Assessment criteria</b>
The learner can: 1.1 state pairs of numbers that add up to 10

<b>Learning outcome</b>
The learner will: 2. be able to interpret + and = in practical situations to solve problems (N1/E2.7)
<b>Assessment criteria</b>
The learner can: 2.1 write the signs + and = 2.2 list words that mean addition 2.3 work out problems including signs + and =

<b>Learning outcome</b>
The learner will: 3. be able to add two digit whole numbers (N1/E2.3)
<b>Assessment criteria</b>
The learner can: 3.1 add together single digit numbers with two digit whole numbers 3.2 add together whole numbers with two digits

**Learning outcome**

The learner will:

4. be able to use a calculator to check addition calculations using whole numbers (N1/E2.8)

**Assessment criteria**

The learner can:

- 4.1 use a calculator to check answers in addition calculations

## Unit 112

## Number - subtraction

<b>UAN:</b>	<b>J/504/5105</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in subtraction including two digit numbers.

<b>Learning outcome</b>
The learner will: 1. know subtraction facts to 10
<b>Assessment criteria</b>
The learner can: 1.1 state subtraction facts for numbers with totals to 10 (N1/E2.4)

<b>Learning outcome</b>
The learner will: 2. be able to interpret – and = in practical situations to solve problems (N1/E2.7)
<b>Assessment criteria</b>
The learner can: 2.1 write the signs – and = 2.2 list words that mean subtraction 2.3 work out problems using – and =

<b>Learning outcome</b>
The learner will: 3. be able to subtract from two digit whole numbers (N1/E2.3)
<b>Assessment criteria</b>
The learner can: 3.1 subtract single digit numbers from two digit numbers 3.2 subtract two digit numbers from whole numbers with two digits

**Learning outcome**

The learner will:

4. be able to use a calculator to check subtraction calculations using whole numbers (N1/E2.8)

**Assessment criteria**

The learner can:

- 4.1 use a calculator to check answers for given subtraction calculations

## Unit 113

## Number - fractions

<b>UAN:</b>	<b>L/504/5106</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with halves and quarters of quantities and shapes.

<b>Learning outcome</b>
The learner will: 1. be able to read and write halves and quarters of quantities (N2/E2.1)
<b>Assessment criteria</b>
The learner can: 1.1 convert fractions to words 1.2 write fractions as numbers and symbols

<b>Learning outcome</b>
The learner will: 2. be able to find halves and quarters of shapes (N2/E2.1)
<b>Assessment criteria</b>
The learner can: 2.1 state the number of halves it takes to make one whole 2.2 state the number of quarters it takes to make one whole 2.3 find halves of shapes 2.4 find quarters of shapes

**Learning outcome**

The learner will:

3. be able to compare halves and quarters of quantities (N2/E2.1)

**Assessment criteria**

The learner can:

- 3.1 find halves of given quantities
- 3.2 find quarters of given quantities
- 3.3 compare halves and quarters of given quantities

**Learning outcome**

The learner will:

4. be able to find halves and quarters of small numbers of items (N2/E2.1)

**Assessment criteria**

The learner can:

- 4.1 work out halves of given amounts
- 4.2 work out quarters of given amounts

## Unit 114

## Number - multiplication

<b>UAN:</b>	<b>R/504/5107</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in simple multiplication using single digit numbers.

### Learning outcome

The learner will:

1. be able to interpret  $\times$  and  $=$  in practical situations to solve problems (N1/E2.7)

### Assessment criteria

The learner can:

- 1.1 write the signs  $\times$  and  $=$
- 1.2 list words which mean 'multiplication'
- 1.3 work out given problems including the signs  $\times$  and  $=$

### Learning outcome

The learner will:

2. be able to multiply single-digit whole numbers (N1/E2.5)

### Assessment criteria

The learner can:

- 2.1 multiply single digit whole numbers

### Learning outcome

The learner will:

3. be able to use a calculator to check multiplication calculations using whole numbers (N1/E2.8)

### Assessment criteria

The learner can:

- 3.1 use a calculator to check answers for given multiplication calculations

## Unit 115

## Measure, shape and space - money

<b>UAN:</b>	<b>Y/504/5108</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	2
<b>GLH:</b>	19
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with money.

### Learning outcome

The learner will:

1. be able to add amounts of money up to £1 (MSS1/E21)

### Assessment criteria

The learner can:

- 1.1 count out coins to make amounts up to £1

### Learning outcome

The learner will:

2. be able to calculate the cost in pence of more than one item (MSS1/E2.2)

### Assessment criteria

The learner can:

- 2.1 work out the cost in pence of more than one item

### Learning outcome

The learner will:

3. be able to calculate the change in pence from transactions (MSS1/E2.2)

### Assessment criteria

The learner can:

- 3.1 work out the change in pence from different transactions



**Learning outcome**

The learner will:

4. be able to calculate the cost in whole pounds of more than one item (MSS1/E2.2)

**Assessment criteria**

The learner can:

- 4.1 work out the cost in whole pounds of more than one item

**Learning outcome**

The learner will:

5. be able to calculate the change in whole pounds from a transaction (MSS1/E2.2)

**Assessment criteria**

The learner can:

- 5.1 work out the change in whole pounds from different transactions

## Unit 116

## Measure, shape and space - time

<b>UAN:</b>	<b>L/504/5316</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with time. Learners will order the months of the year and record time in common date formats as well as reading time on analogue and digital clocks in half and quarter hours.

<b>Learning outcome</b>
The learner will: 1. be able to order the months of the year
<b>Assessment criteria</b>
The learner can: 1.1 state the months of the year in order 1.2 match month of year to numerical position

<b>Learning outcome</b>
The learner will: 2. be able to record time in common date formats (MSS1/E2.3)
<b>Assessment criteria</b>
The learner can: 2.1 read dates in different formats 2.2 write dates in different formats

<b>Learning outcome</b>
The learner will: 3. be able to read time displayed on analogue clocks (MSS1/E.24)
<b>Assessment criteria</b>
The learner can: 3.1 read time displayed on analogue clocks in hours 3.2 read time displayed on analogue clocks in half hours 3.3 read time displayed on analogue clocks in quarter hours

**Learning outcome**

The learner will:

4. be able to read time displayed on 12-hour digital clocks (MSS1/E2.4)

**Assessment criteria**

The learner can:

- 4.1 read time displayed on 12-hour digital clocks in hours
- 4.2 read time displayed on 12-hour digital clocks in half hours
- 4.3 read time displayed on 12-hour digital clocks in quarter hours

## Unit 117

## Measure, shape and space - length

<b>UAN:</b>	<b>R/504/5110</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in estimating and measuring length using standard and non-standard units.

<b>Learning outcome</b>
The learner will: 1. be able to measure length (MSS1/E2.9)
<b>Assessment criteria</b>
The learner can: 1.1 use measuring instruments with simple scales 1.2 measure length in common standard units 1.3 record measurements

<b>Learning outcome</b>
The learner will: 2. be able to compare length using standard and non- standard units (MSS1/E2.5)
<b>Assessment criteria</b>
The learner can: 2.1 estimate length 2.2 compare length in common standard units with non-standard units

<b>Learning outcome</b>
The learner will: 3. be able to write units of measurement (MSS1/E2.6)
<b>Assessment criteria</b>
The learner can: 3.1 write units of measurement in full 3.2 recognise units of measurement written in abbreviated form

## Unit 118

## Measure, shape and space - weight, capacity and temperature

<b>UAN:</b>	<b>Y/504/5111</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in estimating and measuring weight capacity and temperature.

<b>Learning outcome</b>
The learner will: 1. be able to compare weight using common standard units (MSS1/E2.6)
<b>Assessment criteria</b>
The learner can: 1.1 estimate weight in kilograms 1.2 measure weight to the nearest kilogram 1.3 compare weight in kilograms 1.4 recognise kilogram in abbreviated form 1.5 record weight

<b>Learning outcome</b>
The learner will: 2. be able to compare capacity using common standard and non-standard units (MSS/E2.7)
<b>Assessment criteria</b>
The learner can: 2.1 estimate capacity in litres and non-standard units 2.2 measure capacity in litres 2.3 compare capacity in litres with non-standard units 2.4 recognise litre in abbreviated form 2.5 record capacity

**Learning outcome**

The learner will:

3. be able to compare positive temperatures (MSS1/E2.8)

**Assessment criteria**

The learner can:

- 3.1 identify units used for measuring temperature
- 3.2 write units used for measurement of temperature
- 3.3 compare temperatures

## Unit 119

## Measure, shape and space - shapes and positional vocabulary

<b>UAN:</b>	<b>D/504/5112</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in recognising shapes and using positional vocabulary.

<b>Learning outcome</b>
The learner will: 1. be able to recognise 2D shapes (MSS2/E2.1 & MSS2/E2.2)
<b>Assessment criteria</b>
The learner can: 1.1 identify common 2D shapes in a range of orientations 1.2 describe properties of common 2D shapes

<b>Learning outcome</b>
The learner will: 2. be able to recognise 3D shapes (MSS2/E2.1 & MSS2/E2.2)
<b>Assessment criteria</b>
The learner can: 2.1 identify common 3D shapes in a range of orientations and sizes 2.2 describe properties of common 3D shapes

<b>Learning outcome</b>
The learner will: 3. be able to use positional vocabulary (MSS2/E2.3)
<b>Assessment criteria</b>
The learner can: 3.1 write words that explain position 3.2 give directions using positional words

## Unit 120

## Handling data - extract and sort data

<b>UAN:</b>	<b>H/504/5113</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	2
<b>GLH:</b>	20
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in extracting data and comparing numerical information. The learner will also classify objects using two criteria.

<b>Learning outcome</b>
The learner will: 1. be able to extract information from lists and tables
<b>Assessment criteria</b>
The learner can: 1.1 select information from lists and tables

<b>Learning outcome</b>
The learner will: 2. be able to extract information from diagrams
<b>Assessment criteria</b>
The learner can: 2.1 select information from simple diagrams

<b>Learning outcome</b>
The learner will: 3. be able to make numerical comparisons from block graphs (HD1/E2.1 & HD1/E2.2)
<b>Assessment criteria</b>
The learner can: 3.1 select information from block graphs 3.2 compare numerical information obtained from block graphs



<b>Learning outcome</b>
The learner will: 4. be able to sort objects using two criteria (HD1/E2.3)
<b>Assessment criteria</b>
The learner can: 4.1 sort given objects by two criteria

## Unit 121

## Handling data - collect and represent information

<b>UAN:</b>	<b>K/504/5114</b>
<b>Level:</b>	Entry 2
<b>Credit value:</b>	2
<b>GLH:</b>	16
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in collecting and representing information including the construction of simple diagrams and bar charts.

<b>Learning outcome</b>
The learner will: 1. be able to collect numerical information (HD1/E2.4)
<b>Assessment criteria</b>
The learner can: 1.1 collect numerical information 1.2 record information

<b>Learning outcome</b>
The learner will: 2. be able to represent information (HD1/E2.5)
<b>Assessment criteria</b>
The learner can: 2.1 construct a simple table of information 2.2 construct a simple diagram 2.3 construct a simple bar chart

## Unit 210

## Number - whole numbers to 1000

<b>UAN:</b>	<b>M/504/5115</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	2
<b>GLH:</b>	19
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in reading, writing and comparing whole numbers up to 1000. Learners will also count and round numbers to the nearest 10 and 100.

<b>Learning outcome</b>
The learner will: 1. be able to count up to 1000 (N1/E3.1)
<b>Assessment criteria</b>
The learner can: 1.1 state numbers 0-1000 given in digit form 1.2 count in tens from any number below 1000 1.3 count in hundreds from any number below 1000

<b>Learning outcome</b>
The learner will: 2. be able to read numbers up to 1000 (N1/E3.1)
<b>Assessment criteria</b>
The learner can: 2.1 read numbers written in numerical form

<b>Learning outcome</b>
The learner will: 3. be able to match numbers in figures and words up to 1000 (N1/E3.1)
<b>Assessment criteria</b>
The learner can: 3.1 match numbers in figures to numbers in words

**Learning outcome**

The learner will:

4. be able to compare numbers up to 1000 (N1/E3.1)

**Assessment criteria**

The learner can:

- 4.1 arrange numbers in order of value
- 4.2 compare numbers

**Learning outcome**

The learner will:

5. be able to approximate by rounding (N1/E3.7)

**Assessment criteria**

The learner can:

- 5.1 round numbers to the nearest 10
- 5.2 round numbers to the nearest 100

## Unit 211

## Number - addition and subtraction

<b>UAN:</b>	<b>T/504/5116</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in addition and subtraction of whole numbers with up to three digits.

<b>Learning outcome</b>
The learner will: 1. know addition facts up to 20 (N1/E3.3)
<b>Assessment criteria</b>
The learner can: 1.1 state addition facts up to 20

<b>Learning outcome</b>
The learner will: 2. be able to add three-digit whole numbers (N1/E3.2)
<b>Assessment criteria</b>
The learner can: 2.1 add together three-digit whole numbers without the use of a calculator

<b>Learning outcome</b>
The learner will: 3. be able to use + and = in practical situations to solve problems
<b>Assessment criteria</b>
The learner can: 3.1 list words that mean addition 3.2 use symbols to record whole number calculations when solving addition problems

**Learning outcome**

The learner will:

4. know subtraction facts (N1/E3.3)

**Assessment criteria**

The learner can:

- 4.1 state pairs of subtraction facts for numbers with totals to 20

**Learning outcome**

The learner will:

5. be able to subtract whole numbers (N1/E3.2)

**Assessment criteria**

The learner can:

- 5.1 subtract single digit numbers from three digit whole numbers
- 5.2 subtract two digit numbers from three digit whole numbers
- 5.3 subtract three digit whole numbers from three digit whole numbers

**Learning outcome**

The learner will:

6. be able to use – and = in practical situations to solve problems (E1/E3.9)

**Assessment criteria**

The learner can:

- 6.1 list words that mean subtraction
- 6.2 use symbols to record whole number calculations when solving subtraction problems

**Learning outcome**

The learner will:

7. be able to use a calculator to solve problems

**Assessment criteria**

The learner can:

- 7.1 use a calculator to find answers to addition problems
- 7.2 use a calculator to find answers to subtraction problems
- 7.3 use a calculator to check calculations

**Learning outcome**

The learner will:

8. be able to approximate answers to calculations

**Assessment criteria**

The learner can:

- 8.1 use approximation in calculations to estimate answers

## Unit 212

## Number - fractions

<b>UAN:</b>	<b>A/504/5117</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in identifying and using equivalent fractions.

<b>Learning outcome</b>
The learner will: 1. be able to read and write common fractions (N2/E3.1)
<b>Assessment criteria</b>
The learner can: 1.1 read common fractions 1.2 write common fractions 1.3 define the term denominator 1.4 define the term numerator

<b>Learning outcome</b>
The learner will: 2. be able to use equivalent fractions (N2/E3.2)
<b>Assessment criteria</b>
The learner can: 2.1 identify equivalent fractions 2.2 find equivalent fractions in everyday contexts

## Unit 213

## Number - multiplication

<b>UAN:</b>	<b>F/504/5118</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in multiplication including multiplying two digit whole numbers by single digit whole numbers.

<b>Learning outcome</b>
The learner will: 1. know multiplication facts (N1/E3.5)
<b>Assessment criteria</b>
The learner can: 1.1 state multiplication facts

<b>Learning outcome</b>
The learner will: 2. be able to multiply whole numbers without the use of a calculator (N1/E3.4)
<b>Assessment criteria</b>
The learner can: 2.1 multiply two digit whole numbers by single digit whole numbers without the use of a calculator

<b>Learning outcome</b>
The learner will: 3. be able to use $\times$ and $=$ in practical situations to solve multiplication problems (NZ/E3.9 / N1/E3.4)
<b>Assessment criteria</b>
The learner can: 3.1 list words that mean multiplication 3.2 use symbols to record whole number calculations when solving multiplication problems 3.3 solve multiplication problems using a calculator 3.4 check solutions to problems using a calculator



**Learning outcome**

The learner will:

4. be able to estimate answers to multiplication calculations (N1/E3.8)

**Assessment criteria**

The learner can:

- 4.1 use approximation in multiplication calculations to estimate answers

## Unit 214                  Number - division

<b>UAN:</b>	<b>J/504/5119</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in division including dividing two digit whole numbers by single digit whole numbers.

<b>Learning outcome</b>
The learner will: 1. be able to work out whole number calculations which give remainders (N1/E3.6)
<b>Assessment criteria</b>
The learner can: 1.1 divide two digit whole numbers by single digit whole numbers 1.2 interpret remainders

<b>Learning outcome</b>
The learner will: 2. be able to use $\div$ and $=$ in practical situations to solve division problems (N1/E3.9)
<b>Assessment criteria</b>
The learner can: 2.1 list words that mean division 2.2 use symbols to record whole number calculations when solving division problems 2.3 solve division problems without the use of a calculator 2.4 check solutions to problems without the use of a calculator

**Learning outcome**

The learner will:

3. be able to use a calculator to solve division problems

**Assessment criteria**

The learner can:

- 3.1 use a calculator to find solutions to division problems
- 3.2 use a calculator to check calculations

**Learning outcome**

The learner will:

4. be able to estimate answers to calculations (N2/E3.8)

**Assessment criteria**

The learner can:

- 4.1 use approximation in division calculations to estimate answers

## Unit 215                      Number - decimals

<b>UAN:</b>	<b>A/504/5120</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	1
<b>GLH:</b>	9
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with decimal numbers including numbers with two decimal places.

<b>Learning outcome</b>
The learner will: 1. be able to read and write decimals up to two decimal places (N2/E3.3)
<b>Assessment criteria</b>
The learner can: 1.1 read decimals 1.2 write common measures in decimal form 1.3 write money in decimal form 1.4 identify place value in a decimal number

<b>Learning outcome</b>
The learner will: 2. be able to use a calculator to solve problems using whole numbers and decimals (N2/E3.4)
<b>Assessment criteria</b>
The learner can: 2.1 use a calculator to solve problems with whole numbers and decimals 2.2 use a calculator to check calculations

## Unit 216

## Measure, shape and space - money

<b>UAN:</b>	<b>F/504/5121</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in adding, subtracting and rounding amounts of money expressed as pounds and pence.

<b>Learning outcome</b>
The learner will: 1. be able to use decimal notation to express monetary value
<b>Assessment criteria</b>
The learner can: 1.1 read prices written as decimals 1.2 record money using decimal notation 1.3 identify place value in a decimal number

<b>Learning outcome</b>
The learner will: 2. be able to add amounts of money expressed as pounds and pence (MSS1/E3.1)
<b>Assessment criteria</b>
The learner can: 2.1 add amounts of money without the use of a calculator 2.2 add amounts of money using a calculator

**Learning outcome**

The learner will:

3. be able to subtract amounts of money expressed as pounds and pence (N2/E3.4)

**Assessment criteria**

The learner can:

- 3.1 subtract one amount of money from another without the use of a calculator
- 3.2 subtract one amount of money from another using a calculator
- 3.3 check calculations using a calculator

**Learning outcome**

The learner will:

4. be able to round sums of money (MSS1/3.2)

**Assessment criteria**

The learner can:

- 4.1 round sums of money to the nearest pound
- 4.2 round sums of money to the nearest 10 pence

## Unit 217

## Measure, shape and space - temperature and time

<b>UAN:</b>	<b>J/504/5122</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in recording and comparing temperature and recording time.

<b>Learning outcome</b>
The learner will: 1. be able to record temperature (MSS1/E3.9)
<b>Assessment criteria</b>
The learner can: 1.1 state unit of measurement of temperature 1.2 read temperatures using measuring instruments 1.3 record temperatures

<b>Learning outcome</b>
The learner will: 2. be able to compare temperatures (MSS1/E3.9)
<b>Assessment criteria</b>
The learner can: 2.1 compare the temperatures of different places

<b>Learning outcome</b>
The learner will: 3. be able to record time (MSS1/3.3)
<b>Assessment criteria</b>
The learner can: 3.1 read times written in am and pm 3.2 measure time in common time and date formats 3.3 record time in common time and date formats

## Unit 218

## Measure, shape and space - length, weight, capacity and shapes

<b>UAN:</b>	<b>R/504/5320</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	2
<b>GLH:</b>	18
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in measuring and recording length, weight and capacity. The learner will also recognise the properties of 2D and 3D shapes.

<b>Learning outcome</b>
The learner will: 1. know units of measurement
<b>Assessment criteria</b>
The learner can: 1.1 list standard and non-standard units of measurement for length 1.2 list standard and non-standard units of measurement for weight 1.3 list standard and non-standard units of measurement for capacity

<b>Learning outcome</b>
The learner will: 2. be able to compare length using standard and non- standard units
<b>Assessment criteria</b>
The learner can: 2.1 read measurements on measuring instruments 2.2 record measurements of length 2.3 approximate measurements of length in standard and non-standard units 2.4 compare length



**Learning outcome**

The learner will:

3. be able to compare weight using common standard units

**Assessment criteria**

The learner can:

- 3.1 read measurements of weight
- 3.2 approximate measurements of weight
- 3.3 measure weight using an appropriate measuring instrument
- 3.4 compare weight

**Learning outcome**

The learner will:

4. be able to compare capacity using common standard and non-standard units

**Assessment criteria**

The learner can:

- 4.1 read measurements of capacity
- 4.2 approximate measurements of capacity
- 4.3 measure capacity using an appropriate measuring instrument
- 4.4 record capacity
- 4.5 compare capacity

**Learning outcome**

The learner will:

5. be able to recognise the properties of 2D shapes

**Assessment criteria**

The learner can:

- 5.1 describe the properties of 2D shapes
- 5.2 sort 2D shapes to solve practical problems

**Learning outcome**

The learner will:

6. be able to recognise the properties of 3D shapes

**Assessment criteria**

The learner can:

- 6.1 describe the properties of 3D shapes
- 6.2 sort 3D shapes to solve practical problems

## Unit 219

## Handling data - extract and use data

<b>UAN:</b>	<b>R/504/5124</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	2
<b>GLH:</b>	19
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in extracting data and making numerical comparisons from bar charts and pictograms.

<b>Learning outcome</b>
The learner will: 1. be able to extract numerical information from a range of sources (HD1/E3.1)
<b>Assessment criteria</b>
The learner can: 1.1 obtain information from lists and tables 1.2 obtain information from diagrams 1.3 obtain information from simple charts

<b>Learning outcome</b>
The learner will: 2. be able to make numerical comparisons from bar charts (HD1/E3.2)
<b>Assessment criteria</b>
The learner can: 2.1 identify title and labels on bar charts 2.2 extract required information from bar charts 2.3 compare information obtained from bar charts

**Learning outcome**

The learner will:

3. be able to make numerical comparisons from pictograms

**Assessment criteria**

The learner can:

- 3.1 state the meaning of the 'key' on pictograms
- 3.2 extract required information from pictograms
- 3.3 compare information obtained from pictograms

## Unit 220

## Handling data - represent information

<b>UAN:</b>	<b>Y/504/5125</b>
<b>Level:</b>	Entry 3
<b>Credit value:</b>	2
<b>GLH:</b>	16
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in recording and representing numerical information including the construction of tables, diagrams, charts and pictograms.

<b>Learning outcome</b>
The learner will: 1. be able to collect and record numerical information (HD1/E3.3)
<b>Assessment criteria</b>
The learner can: 1.1 collect numerical information 1.2 use a tally chart to record information

<b>Learning outcome</b>
The learner will: 2. be able to represent information in a range of different formats (HD1/E3.4)
<b>Assessment criteria</b>
The learner can: 2.1 construct a table 2.2 construct a diagram 2.3 construct a chart 2.4 construct a pictogram

## Unit 310

## Number - positive and negative numbers

<b>UAN:</b>	<b>R/504/5219</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	2
<b>GLH:</b>	20
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with positive numbers up to seven digits and recognising negative numbers. This includes addition, subtraction, multiplication, division and rounding.

<b>Learning outcome</b>
The learner will: 1. be able to compare numbers up to seven digits (N1/L1.1)
<b>Assessment criteria</b>
The learner can: 1.1 recognise numbers up to seven digits written in digit form and in words 1.2 write numbers up to seven digits in digit form and in words 1.3 arrange numbers in order of value 1.4 use $>$ to describe two different numbers up to seven digits 1.5 use $<$ to describe two different numbers up to seven digits

<b>Learning outcome</b>
The learner will: 2. be able to identify negative numbers in everyday situations (N1/L1.2)
<b>Assessment criteria</b>
The learner can: 2.1 define negative numbers 2.2 state the everyday situations when negative numbers are used

**Learning outcome**

The learner will:

3. be able to add and subtract whole numbers up to seven digits (N1/L1.3)

**Assessment criteria**

The learner can:

- 3.1 add whole numbers up to seven digits using written and calculator methods
- 3.2 subtract whole numbers up to seven digits using written and calculator methods
- 3.3 check calculations using a calculator

**Learning outcome**

The learner will:

4. be able to multiply whole numbers (N1 /L 1 .3)

**Assessment criteria**

The learner can:

- 4.1 multiply whole numbers up to six digits by 10 without the use of a calculator
- 4.2 multiply whole numbers up to five digits by 100 without the use of a calculator
- 4.3 multiply two digit whole numbers by two digit whole numbers without the use of a calculator
- 4.4 check calculations using a calculator
- 4.5 check calculations without the use of a calculator

**Learning outcome**

The learner will:

5. know multiplication facts (N1/L1.5 & N1/L1.6)

**Assessment criteria**

The learner can:

- 5.1 state multiplication facts up to  $10 \times 10$
- 5.2 state multiples of 2 to 9 up to 100
- 5.3 state multiples of 10, 50, 100 and 1000
- 5.4 state square numbers up to  $10 \times 10$

**Learning outcome**

The learner will:

6. be able to divide whole numbers (N1/L1.4)

**Assessment criteria**

The learner can:

- 6.1 divide whole numbers up to seven digits by 10 without the use of a calculator
- 6.2 divide whole numbers up to seven digits by 100 without the use of a calculator
- 6.3 divide whole numbers up to seven digits by whole numbers of any value using written and calculator methods
- 6.4 check calculations using a calculator
- 6.5 check calculations without the use of a calculator

**Learning outcome**

The learner will:

7. be able to approximate by rounding (N1/L1.8)

**Assessment criteria**

The learner can:

7.1 round whole numbers up to seven digits to the nearest:

- 10
- 100
- 1000
- 1 000 000

**Learning outcome**

The learner will:

8. be able to estimate answers to a range of calculations (N1/L1.9)

**Assessment criteria**

The learner can:

- 8.1 use approximation in addition calculations to estimate answers without the use of a calculator
- 8.2 use approximation in subtraction calculations to estimate answers without the use of a calculator
- 8.3 use approximation in multiplication calculations to estimate answers without the use of a calculator
- 8.4 use approximation in division calculations to estimate answers without the use of a calculator

## Unit 311

## Number - fractions, ratio and proportion

<b>UAN:</b>	<b>L/504/5221</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	2
<b>GLH:</b>	18
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in comparing fractions and mixed numbers and using equivalencies between common fractions, percentages and decimals. The learner will also work out simple ratio and direct proportion.

<b>Learning outcome</b>
The learner will: 1. be able to read mixed numbers
<b>Assessment criteria</b>
The learner can: 1.1 read <b>common fractions</b> in digit form 1.2 read mixed numbers in digit form 1.3 state the everyday situations when <b>common fractions</b> and mixed numbers are used

### Range

#### Common fractions

Halves, quarters, thirds, fifths, tenths

<b>Learning outcome</b>
The learner will: 2. be able to write mixed numbers (N2/L1.1)
<b>Assessment criteria</b>
The learner can: 2.1 write common fractions in digit form 2.2 write mixed numbers in digit form



**Learning outcome**

The learner will:

3. be able to compare fractions and mixed numbers (N2/L1.1)

**Assessment criteria**

The learner can:

- 3.1 arrange common fractions and mixed numbers in digit form in order of value
- 3.2 use  $>$  to describe common fractions and mixed numbers in digit form
- 3.3 use  $<$  to describe common fractions and mixed numbers in digit form

**Learning outcome**

The learner will:

4. know equivalencies between common fractions, percentages and decimals (N2/L1.3)

**Assessment criteria**

The learner can:

- 4.1 state the equivalent percentages and decimals of given **fractions**
- 4.2 state the equivalent decimals and **fractions** of given percentages
- 4.3 state the equivalent percentages and **fractions** of given decimals
- 4.4 calculate fractions of whole numbers

**Range****Fractions**

Halves, quarters, fifths, tenths

**Learning outcome**

The learner will:

5. be able to work out simple ratio and direct proportion (N1/L1.9)

**Assessment criteria**

The learner can:

- 5.1 use simple ratio expressed in the form of three parts to one part in calculations
- 5.2 scale quantities by a factor of two

## Unit 312      Number - decimals

<b>UAN:</b>	<b>R/504/5222</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with decimals. This includes addition, subtraction, multiplication and division with decimal numbers up to 2 places.

<b>Learning outcome</b>
The learner will: 1. be able to read decimal numbers up to three places (N2/L1.4)
<b>Assessment criteria</b>
The learner can: 1.1 recognise decimals in everyday situations 1.2 read decimals

<b>Learning outcome</b>
The learner will: 2. be able to write decimals up to three places (N2/L1.4)
<b>Assessment criteria</b>
The learner can: 2.1 write decimals in digit form

<b>Learning outcome</b>
The learner will: 3. be able to compare decimals up to three places (N2/L1.4)
<b>Assessment criteria</b>
The learner can: 3.1 arrange decimals in digit form in order of value 3.2 use > to describe different decimals in digit form 3.3 use < to describe different decimals in digit form

**Learning outcome**

The learner will:

4. be able to add and subtract decimals up to two places (N2/L1.5)

**Assessment criteria**

The learner can:

- 4.1 add decimals using written and calculator methods
- 4.2 subtract decimals using written and calculator methods

**Learning outcome**

The learner will:

5. be able to multiply decimals up to two places (N2/L1.6)

**Assessment criteria**

The learner can:

- 5.1 multiply decimals by up to two digit whole numbers using written and calculator methods
- 5.2 multiply decimals by 10 and 100 without the use of a calculator

**Learning outcome**

The learner will:

6. be able to divide decimals up to two places (N2/L1.6)

**Assessment criteria**

The learner can:

- 6.1 divide decimals by single digit whole numbers using written and calculator methods
- 6.2 divide decimals by 10 and 100 without the use of a calculator

**Learning outcome**

The learner will:

7. be able to approximate decimals by rounding (N2/L1.7)

**Assessment criteria**

The learner can:

- 7.1 round decimals to whole numbers
- 7.2 round decimals to two decimal places

## Unit 313      Number - percentages

<b>UAN:</b>	<b>D/504/5224</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in finding percentages and calculating whole number percentage increase and decrease.

<b>Learning outcome</b>
The learner will: 1. be able to recognise percentages
<b>Assessment criteria</b>
The learner can: 1.1 define percentages 1.2 recognise the everyday situations when percentages are used

<b>Learning outcome</b>
The learner will: 2. be able to write percentages (N2/L1.8)
<b>Assessment criteria</b>
The learner can: 2.1 write whole number percentages in digit form

<b>Learning outcome</b>
The learner will: 3. be able to compare whole number percentages (N2/L1.8)
<b>Assessment criteria</b>
The learner can: 3.1 arrange percentages in order of value 3.2 use > to describe different percentages in digit form 3.3 use < to describe different percentages in digit form

**Learning outcome**

The learner will:

4. be able to recognise simple percentage increase and decrease (N2/L1.8)

**Assessment criteria**

The learner can:

- 4.1 state the everyday situations when a percentage increase is used
- 4.2 state the everyday situations when a percentage decrease is used

**Learning outcome**

The learner will:

5. be able to find whole number percentage parts of quantities and measurements (N2/L1.9)

**Assessment criteria**

The learner can:

- 5.1 calculate percentage parts of quantities using written and calculator methods
- 5.2 calculate percentage parts of measurements using written and calculator methods

**Learning outcome**

The learner will:

6. be able to find whole number percentage increases (N2/L1.10)

**Assessment criteria**

The learner can:

- 6.1 calculate a percentage increase using a written and calculator method

**Learning outcome**

The learner will:

7. be able to find whole number percentage decreases (N2/L1.10)

**Assessment criteria**

The learner can:

- 7.1 calculate a percentage decrease using a written and calculator method

## Unit 314

## Measure, shape and space - money, time and temperature

<b>UAN:</b>	<b>K/504/5226</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in calculating with money and measuring and recording time and temperature.

<b>Learning outcome</b>
The learner will: 1. be able to calculate amounts of money expressed in pounds and pence (MSS1/L1.1)
<b>Assessment criteria</b>
The learner can: 1.1 add amounts of money 1.2 subtract amounts of money 1.3 multiply amounts of money in pounds and pence by one and two digit numbers 1.4 divide amounts of money in pounds and pence by one and two digit numbers

<b>Learning outcome</b>
The learner will: 2. be able to record time (MSS1/L1.2)
<b>Assessment criteria</b>
The learner can: 2.1 record time in standard British formats 2.2 select measuring instruments to measure and record time 2.3 measure time in seconds and minutes 2.4 add time in hours and minutes using 24 hour clock format 2.5 subtract time in hours and minutes using 24 hour clock format 2.6 record time using a 24 hour clock format 2.7 record time using a 12 hour clock format

**Learning outcome**

The learner will:

3. be able to record temperature (MSS1/L1)

**Assessment criteria**

The learner can:

- 3.1 list units of measurement for temperature
- 3.2 select measuring instruments to measure and record temperature
- 3.3 measure temperature
- 3.4 record temperature in different units of measurement

## Unit 315

## Measure, shape and space - length, weight and capacity

<b>UAN:</b>	<b>M/504/5227</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in measuring and recording length, weight and capacity and perform calculations within the same system.

<b>Learning outcome</b>
The learner will: 1. be able to record length (MSS1/L1.4)
<b>Assessment criteria</b>
The learner can: 1.1 select instruments for measuring length 1.2 measure length in a range of different contexts 1.3 record length using appropriate units 1.4 convert units of measurement within the same system of measurement

<b>Learning outcome</b>
The learner will: 2. be able to record weight (MSS1/L1.4)
<b>Assessment criteria</b>
The learner can: 2.1 select instruments for measuring weight 2.2 measure weight in a range of different contexts 2.3 record weight using appropriate units 2.4 convert units of measurement within the same system of measurement



**Learning outcome**

The learner will:

3. be able to record capacity (MSS1/L1.4)

**Assessment criteria**

The learner can:

- 3.1 select instruments for measuring capacity
- 3.2 measure capacity in a range of different contexts
- 3.3 record capacity using appropriate units
- 3.4 convert units of measurement within the same system of measurement

**Learning outcome**

The learner will:

4. be able to carry out calculations within the same system of measurement (MSS1/L1.6)

**Assessment criteria**

The learner can:

- 4.1 add within the same system of measurement
- 4.2 subtract within the same system of measurement

## Unit 316

## Measure, shape and space - calculate using shape and space

<b>UAN:</b>	<b>R/504/5317</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	2
<b>GLH:</b>	17
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in solving problems using shape and space including finding area, perimeter and volume of simple shapes.

<b>Learning outcome</b>
The learner will: 1. be able to solve problems using the mathematical properties of regular 2D shapes (MSS2/L1.1)
<b>Assessment criteria</b>
The learner can: 1.1 identify the properties of 2D squares and rectangles 1.2 solve problems using properties of squares and rectangles

<b>Learning outcome</b>
The learner will: 2. be able to draw 2D shapes in different orientations using grids (MSS2/L1.1)
<b>Assessment criteria</b>
The learner can: 2.1 use grids to draw squares and rectangles in different orientations

**Learning outcome**

The learner will:

3. be able to calculate the perimeters of simple shapes (MSS1/L1.2 & MSS1/L1.8)

**Assessment criteria**

The learner can:

- 3.1 define perimeter
- 3.2 list common units of measurement for perimeter
- 3.3 describe the methods used to calculate the perimeters of **simple shapes**
- 3.4 calculate perimeters of rectangles
- 3.5 calculate perimeters of triangles
- 3.6 calculate perimeters of squares

**Range****Simple shapes**

Rectangles, squares, triangles

**Learning outcome**

The learner will:

4. be able to calculate the areas of rectangles (MSS1/L1.9)

**Assessment criteria**

The learner can:

- 4.1 list common units of measurement for area
- 4.2 state the formula in words for calculating the area of a rectangle
- 4.3 calculate areas of rectangles

**Learning outcome**

The learner will:

5. be able to calculate volumes of simple shapes (MSS1/L1.10)

**Assessment criteria**

The learner can:

- 5.1 list common units of measure for volume
- 5.2 list cuboid shapes used in everyday situations
- 5.3 label dimensions of a cuboid
- 5.4 state the formula in words for finding out the volume of a cuboid
- 5.5 calculate the volume of a cuboid

## Unit 317

## Handling data - extract and interpret data

<b>UAN:</b>	<b>M/504/5230</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	1
<b>GLH:</b>	9
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in extracting and interpreting data from tables, diagrams, charts and line graphs.

### Learning outcome

The learner will:

1. be able to interpret information from a range of sources (HD1/L1.1)

### Assessment criteria

The learner can:

- 1.1 extract information from different sources
- 1.2 interpret information from tables
- 1.3 interpret information from diagrams
- 1.4 interpret information from bar charts and pie charts
- 1.5 interpret information from single line graphs

## Unit 318

## Handling data - collect, organise and represent data

<b>UAN:</b>	<b>T/504/5231</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	1
<b>GLH:</b>	6
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in collecting, organising and representing discrete data.

<b>Learning outcome</b>
The learner will: 1. be able to record discrete data (HD1/L1.2)
<b>Assessment criteria</b>
The learner can: 1.1 select methods for collecting discrete data 1.2 select methods for recording discrete data 1.3 record collected discrete data

<b>Learning outcome</b>
The learner will: 2. be able to represent discrete data (HD1/L1.2)
<b>Assessment criteria</b>
The learner can: 2.1 organise data for representation 2.2 select scales to represent data 2.3 construct tables 2.4 construct charts 2.5 construct diagrams

## Unit 319

## Handling data - mean and range

<b>UAN:</b>	<b>A/504/5232</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in finding the arithmetical mean and range for sets of data.

### Learning outcome

The learner will:

1. be able to find the arithmetical average (mean) for sets of data (HD1/L1.3)

### Assessment criteria

The learner can:

- 1.1 define the term 'average'
- 1.2 state the everyday contexts when the term 'average' is used
- 1.3 calculate the means for different sets of given data
- 1.4 identify the factors that can distort the mean value

### Learning outcome

The learner will:

2. be able to find the arithmetical range for sets of data (HD1/L1.4)

### Assessment criteria

The learner can:

- 2.1 define the term 'range'
- 2.2 state the everyday contexts in which the term 'range' is used
- 2.3 calculate the ranges for different sets of given data

## Unit 320

## Handling data - probability

<b>UAN:</b>	<b>T/504/5228</b>
<b>Level:</b>	Level 1
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with probability. Learners will express the likelihood of events in different ways.

<b>Learning outcome</b>
The learner will: 1. be able to show that some events are more likely to occur than others (HD2/L1.1)
<b>Assessment criteria</b>
The learner can: 1.1 provide examples of events that are certain to happen 1.2 provide examples of events that are impossible 1.3 provide examples of events that are more likely to occur than others

<b>Learning outcome</b>
The learner will: 2. be able to express the likelihood of an event occurring (HD2/L1.2)
<b>Assessment criteria</b>
The learner can: 2.1 plot the likelihood of events occurring on a probability scale of 0 to 1 2.2 describe the methods used to calculate the probability of an event occurring 2.3 express the probability of given events occurring as a fraction 2.4 express the probability of given events occurring as a decimal 2.5 express the probability of given events occurring as a percentage

## Unit 410

## Number - number and formulae

<b>UAN:</b>	<b>R/504/5236</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with positive and negative numbers of any value and using formulae.

<b>Learning outcome</b>
The learner will: 1. be able to compare positive and negative numbers of any value in practical contexts (N1/L2.1)
<b>Assessment criteria</b>
The learner can: 1.1 record positive numbers of any value in digit form 1.2 record negative numbers of any value in digit form 1.3 arrange positive and negative numbers in order of value 1.4 compare positive and negative numbers of any value

<b>Learning outcome</b>
The learner will: 2. be able to carry out calculations with numbers of any value (N1/L2.10)
<b>Assessment criteria</b>
The learner can: 2.1 carry out calculations involving two or more operations in a sequence using written and calculator methods 2.2 check calculations using a calculator 2.3 use memory functions of a calculator in two step calculations



**Learning outcome**

The learner will:

3. be able to make substitutions in given formulae to produce results (N1/L2.4)

**Assessment criteria**

The learner can:

- 3.1 substitute numerical values for words and symbols in a given formula without brackets
- 3.2 carry out operations within calculations in the correct order
- 3.3 multiply when there is no operator between a number and one or more variables
- 3.4 evaluate simple formulae using brackets
- 3.5 evaluate simple expressions involving more than one variable

## Unit 411

## Number - fractions, ratio and proportion

<b>UAN:</b>	<b>Y/504/5237</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	2
<b>GLH:</b>	18
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with fractions and direct proportion. Learners will identify equivalencies, evaluate one number as a fraction of another and add and subtract amounts and quantities.

<b>Learning outcome</b>
The learner will: 1. be able to use fractions to compare amounts and quantities (N2/L2.1)
<b>Assessment criteria</b>
The learner can: 1.1 use factors to reduce a fraction to its simplest form 1.2 use fractions with the same denominators to order amounts 1.3 use fractions with different denominators to order quantities 1.4 use fractions to compare amounts 1.5 use fractions to compare quantities

<b>Learning outcome</b>
The learner will: 2. be able to use equivalences between fractions, decimals and percentages (N2/L2.2)
<b>Assessment criteria</b>
The learner can: 2.1 convert a given fraction to a decimal and a percentage 2.2 convert a given decimal to a fraction and a percentage 2.3 convert a given percentage to a fraction and a decimal 2.4 arrange fractions, decimals and percentages in order of value 2.5 calculate parts of whole numbers

**Learning outcome**

The learner will:

3. be able to evaluate one number as a fraction of another (N2/L2.3)

**Assessment criteria**

The learner can:

- 3.1 calculate a number as a fraction of another giving the answer in its simplest form

**Learning outcome**

The learner will:

4. be able to use fractions to add and subtract amounts and quantities (N2/L2.4 & N2/L2.10)

**Assessment criteria**

The learner can:

- 4.1 use fractions to add amounts without a calculator
- 4.2 use fractions to subtract quantities without a calculator
- 4.3 use a calculator to add and subtract fractions
- 4.4 use a calculator to check fraction calculations

**Learning outcome**

The learner will:

5. be able to calculate ratio and direct proportion (N1/L2.3)

**Assessment criteria**

The learner can:

- 5.1 calculate the number of parts in a given ratio
- 5.2 calculate quantities using ratio in the form of  $a:b:c$
- 5.3 calculate direct proportion

## Unit 412

## Number - decimals

<b>UAN:</b>	<b>J/504/5234</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with decimal numbers up to three places. Learners will make comparisons, add, subtract, multiply and divide decimal numbers.

<b>Learning outcome</b>
The learner will: 1. be able to compare decimals (N2/L2.5 & N2/L2.10)
<b>Assessment criteria</b>
The learner can: 1.1 round numbers with three decimal places to two decimal places 1.2 round numbers with two decimal places to one decimal place 1.3 round numbers with one decimal place to a whole number 1.4 round answers from a calculator to an appropriate degree of accuracy 1.5 order decimals up to three places 1.6 compare decimals up to three places

<b>Learning outcome</b>
The learner will: 2. be able to add and subtract decimals up to three places (N2/L2.6)
<b>Assessment criteria</b>
The learner can: 2.1 add decimals using efficient written methods 2.2 subtract decimals using efficient written methods 2.3 add decimals using efficient calculator methods 2.4 subtract decimals using efficient calculator methods

**Learning outcome**

The learner will:

3. be able to multiply and divide decimals to three places (N2/L2.6 & N2/L2.10)

**Assessment criteria**

The learner can:

- 3.1 multiply decimals by numbers of any value using efficient written methods
- 3.2 divide decimals by numbers of any value using efficient written methods
- 3.3 multiply decimals by numbers of any value using efficient calculator methods
- 3.4 divide decimals by numbers of any value using efficient calculator methods

## Unit 413

## Number - percentages

<b>UAN:</b>	<b>F/504/5233</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	2
<b>GLH:</b>	14
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with percentages of any size, including decimals. Learners will order and compare percentages, calculate percentage increase and decrease and find percentage parts of quantities and measurements.

<b>Learning outcome</b>
The learner will: 1. be able to compare percentages (N2/L2.7)
<b>Assessment criteria</b>
The learner can: 1.1 order percentages for different situations 1.2 compare percentages for different situations

<b>Learning outcome</b>
The learner will: 2. be able to calculate percentage increases and decreases (N2/L2.7)
<b>Assessment criteria</b>
The learner can: 2.1 calculate percentage increases for different situations 2.2 calculate percentage decreases for different situations 2.3 calculate results of percentage changes in different situations

**Learning outcome**

The learner will:

3. be able to find percentage parts of quantities and measurements (N2/L2.8 & N2/L2.10)

**Assessment criteria**

The learner can:

- 3.1 calculate percentage parts of quantities and measurements using efficient written methods
- 3.2 calculate percentage parts of quantities and measurements using efficient calculator methods
- 3.3 calculate percentage parts of quantities and measurements using quick methods

**Learning outcome**

The learner will:

4. be able to evaluate one number as a percentage of another (N2/L2.9)

**Assessment criteria**

The learner can:

- 4.1 calculate one number as a percentage of another

## Unit 414

## Measure, shape and space - money, time and temperature

<b>UAN:</b>	<b>H/504/5239</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in performing calculations with money including conversion between currencies. Learners will also calculate durations of time in different formats and temperature using conversion tables.

<b>Learning outcome</b>
The learner will: 1. be able to calculate amounts of money of any value expressed in pounds and pence (MSS1/L2.1)
<b>Assessment criteria</b>
The learner can: 1.1 calculate amounts of money involving two or more operations in a sequence using efficient written and calculator methods

<b>Learning outcome</b>
The learner will: 2. be able to convert between currencies (MSS1/L2.1)
<b>Assessment criteria</b>
The learner can: 2.1 convert from sterling to different currencies 2.2 convert to sterling from different currencies



**Learning outcome**

The learner will:

3. be able to record time in different formats (MSS1/L2.2)

**Assessment criteria**

The learner can:

- 3.1 state the different **units of time**
- 3.2 state the relationship between **units of time**
- 3.3 calculate durations of time in hours and minutes for a series of events using 12 hour and 24 hour clock formats
- 3.4 calculate durations of time using a calendar
- 3.5 record durations of time in different formats

**Range****Units of time**

Seconds, minutes, hours, days, weeks, months, years

**Learning outcome**

The learner will:

4. be able to record temperature (MSS1/L2.4)

**Assessment criteria**

The learner can:

- 4.1 select units for measurement of temperature
- 4.2 measure temperature
- 4.3 record temperature in different units of temperature
- 4.4 calculate temperature differences within the same system
- 4.5 calculate temperature differences between different systems using conversion tables and scales

## Unit 415

## Measure, shape and space - length, weight and capacity

<b>UAN:</b>	<b>Y/504/5240</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	1
<b>GLH:</b>	9
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in measuring and comparing length, weight and capacity using metric and imperial units.

<b>Learning outcome</b>
The learner will: 1. be able to compare lengths of any size (MSS1/L2.3 & MSS1/L2.6)
<b>Assessment criteria</b>
The learner can: 1.1 select degree of accuracy for measuring length in different contexts 1.2 measure length using metric units 1.3 compare length using metric units 1.4 carry out calculations involving units within the same system 1.5 carry out calculations involving units between imperial and metric systems using conversion tables and scales 1.6 use conversion factors

<b>Learning outcome</b>
The learner will: 2. be able to compare weight (MSS1/L2.3, MSS1/L2.5 & MSS1/L2.6)
<b>Assessment criteria</b>
The learner can: 2.1 select degree of accuracy for measuring weight in different contexts 2.2 measure weight using metric units 2.3 compare weight using metric units 2.4 carry out calculations involving units within the same system 2.5 carry out calculations involving units between imperial and metric systems using conversion tables and scales 2.6 use conversion factors

**Learning outcome**

The learner will:

3. be able to compare capacity (MSS1/L2.3, MSS1/L2.5 & MSS1/L2.6)

**Assessment criteria**

The learner can:

- 3.1 select degree of accuracy for measuring capacity in different contexts
- 3.2 measure capacity using metric units
- 3.3 compare capacity using metric units
- 3.4 carry out calculations involving units within the same system
- 3.5 carry out calculations involving units in imperial and metric systems using conversion tables and scales
- 3.6 use conversion factors

## Unit 416

## Measure, shape and space - shape and space

<b>UAN:</b>	<b>D/504/5238</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	2
<b>GLH:</b>	16
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in working with shape and space including using formulae, working out dimensions from scale drawing and solving problems involving 2D shapes.

<b>Learning outcome</b>
The learner will: 1. be able to use given formulae expressed in letters and symbols (MSS1/L2.7, MSS1/L2.8 7 MSS1/L2.9)
<b>Assessment criteria</b>
The learner can: 1.1 calculate perimeters of <b>regular shapes</b> using given formulae 1.2 calculate areas of <b>regular shapes</b> using given formulae 1.3 calculate areas of composite shapes using given formulae 1.4 calculate volumes of cuboids and cylinders using given formulae

Range

Regular shapes

Rectangles, circles, triangles

<b>Learning outcome</b>
The learner will: 2. be able to work out dimensions from scale drawings (MSS1/L2.10)
<b>Assessment criteria</b>
The learner can: 2.1 use scales on drawings to calculate actual measurements

**Learning outcome**

The learner will:

3. be able to use common 2D representations of 3D objects (MSS2/L2.1 & MSS2/L2.2)

**Assessment criteria**

The learner can:

- 3.1 list 3D objects represented in 2D form
- 3.2 use 2D representations of 3D objects

**Learning outcome**

The learner will:

4. be able to solve problems involving 2D shapes and parallel lines

**Assessment criteria**

The learner can:

- 4.1 identify parallel lines on common 2D shapes
- 4.2 use the properties of parallel lines to solve problems

## Unit 417

## Handling data - extract and interpret data

<b>UAN:</b>	<b>H/504/5242</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	1
<b>GLH:</b>	7
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in extracting and interpreting discrete and continuous data.

### Learning outcome

The learner will:

1. be able to interpret discrete data and continuous data (HD1/L2.1)

### Assessment criteria

The learner can:

- 1.1 define discrete data
- 1.2 define continuous data
- 1.3 extract discrete and continuous data from different sources
- 1.4 interpret information from complex tables
- 1.5 interpret information from diagrams
- 1.6 interpret information from composite bar charts
- 1.7 interpret information from line graphs with more than one line

## Unit 418

## Handling data - collect and use data

<b>UAN:</b>	<b>T/504/5259</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	1
<b>GLH:</b>	9
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in collecting and representing discrete and continuous data.

<b>Learning outcome</b>
The learner will: 1. be able to represent discrete data (HD1/L2.2)
<b>Assessment criteria</b>
The learner can: 1.1 collect discrete data from a range of sources 1.2 organise discrete data for representation 1.3 construct complex tables 1.4 construct pie charts 1.5 construct composite bar charts 1.6 construct scale diagrams 1.7 describe the effects of using different scales in representations

<b>Learning outcome</b>
The learner will: 2. be able to represent continuous data (HD1/L2.2)
<b>Assessment criteria</b>
The learner can: 2.1 collect continuous data from a range of sources 2.2 represent continuous data in a line graph 2.3 identify trends from an analysis of the slope of the line

## Unit 419

## Handling data - statistics

<b>UAN:</b>	<b>K/504/5243</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	1
<b>GLH:</b>	9
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in comparing the mean, median and mode and using the range to describe the spread within two sets of data.

<b>Learning outcome</b>
The learner will: 1. be able to compare the mean, median and mode (HD1/L2.3)
<b>Assessment criteria</b>
The learner can: 1.1 find the mean for sets of data 1.2 find the median for sets of data 1.3 find the mode sets of data 1.4 compare the mean, median and mode for different sets of data 1.5 state the different purposes for which the mean, median and mode can be used

<b>Learning outcome</b>
The learner will: be able to use the range to describe the spread within two sets of data (HD1/L2.3 & HD1/L2.4)
<b>Assessment criteria</b>
The learner can: 1.6 calculate the range of sets of data 1.7 compare the ranges of sets of data



## Unit 420

## Handling data - probability

<b>UAN:</b>	<b>D/504/5241</b>
<b>Level:</b>	Level 2
<b>Credit value:</b>	1
<b>GLH:</b>	10
<b>Relationship to other standards:</b>	This unit is based on the National Standards for Adult Numeracy and fully referenced to the Adult Numeracy Core Curriculum.
<b>Aim:</b>	The aim of this unit is to develop the learner's skills in identifying the range of possible outcomes for both independent and combined events.

<b>Learning outcome</b>
The learner will: 1. be able to identify the range of possible outcomes of independent events (HD2/L2.1)
<b>Assessment criteria</b>
The learner can: 1.1 state the possible outcomes when events are independent 1.2 record the outcomes of an independent event

<b>Learning outcome</b>
The learner will: 2. be able to identify the range of possible outcomes of combined events (HD2/L2.1)
<b>Assessment criteria</b>
The learner can: 2.1 state the possible outcomes when events are combined 2.2 record the possible outcomes of combined events in tables 2.3 record the possible outcomes of combined events in tree diagrams

## Glossary of words used in the units

The following key words and terms are used in the units:

Term	Definition
2D, 3D	two-dimensional, three-dimensional. Having two or three dimensions respectively.
analogue clock	an analogue clock usually has 12 equal divisions around the perimeter/circumference, labelled 1 to 12 to represent hours. It has two hands that rotate about the centre. The hour hand completes one revolution in 12 hours, and the minute hand completes one revolution in one hour.
angle	a configuration of two line segments meeting at a point. The term is often used for the measure of rotation from one of the line segments to the other. In this sense, a right angle measures $90^\circ$ , an acute angle is less than $90^\circ$ , an obtuse angle is greater than $90^\circ$ but less than $180^\circ$ , and a reflex angle is greater than $180^\circ$ .
approximation	a result that is not exact but sufficiently close to be useful in a practical context. Verb: approximate. Adverb: approximately.
area	a measure of a surface. Measured in squares, eg square centimetres ( $\text{cm}^2$ ), square metres ( $\text{m}^2$ ).
average	sometimes used synonymously with arithmetic 'mean'. More widely, measures of average include <b>mean</b> , <b>median</b> and <b>mode</b> .
bar chart	a particular form of representation of data. Frequencies are represented by bars of equal width where the lengths are proportional to the frequencies. The bars may be presented vertically or horizontally.
block graph	a particular form of representation of grouped data. In its simplest form, where the class intervals are equal and rectangles have bases of the same size, the block graph can be considered as a bar chart, and the length of each rectangle represents the total in each class.
calculate efficiently	use knowledge of number systems and operations, eg use multiplication rather than repeated addition. In the context of using tools, to use available operations and functions, eg memory and constant functions on a calculator, sum formula in a spreadsheet for a range of cells, rather than addition of individual cells.
capacity	volume, ie a measure in three-dimensional space, applied to liquids, materials that can be poured, or containers. Units include cubic centimetres ( $\text{cm}^3$ ), cubic metres ( $\text{m}^3$ ). <b>Note</b> – a litre is $1000 \text{ cm}^3$ (the volume of 1 kg of water).
cardinal number	a counting number. Example: one, two, three, etc.
circumference	sometimes used for the boundary of a circle but more usually the length of the boundary. If the radius of a circle is $r$ units, and the diameter $d$ units, then the circumference is $2\pi r$ , or $\pi d$ units.

combined events	a set of independent events with a single outcome. An independent event does not influence a subsequent event: for example, one throw of a die does not influence a second throw. Two throws of a die is a combined event with 36 possible outcomes ( $6 \times 6$ ). The probability of throwing two sixes is $\frac{1}{36}$ .
common	an adjective used to describe units, instruments, measures, date formats, etc. that are widely used in everyday life in non-specialist contexts.
common fraction	a fraction where the numerator and denominator are both integers. Also known as a simple or vulgar fraction.
commutative	an operation $*$ is commutative if $a * b = b * a$ . Addition and multiplication are commutative where $2 + 3 = 3 + 2$ and $2 \times 3 = 3 \times 2$ . Subtraction and division are not commutative.
composite shape	an irregular shape which can be partitioned into two or more regular or simple shapes, eg an L-shape made up of two rectangles.
continuous data	data resulting from measurement, eg length, temperature. Continuous data can take any value between two values, and can only be measured approximately to a certain degree of accuracy. Continuous data are usually represented by a line.
cuboid	a three-dimensional figure with six rectangular faces. Adjoining edges and faces are at right angles. (One pair of opposite faces may be square.)
data	information of a quantitative nature consisting of counts or measurements: where they refer to items or events that are separate and can be counted, the data are discrete; where they refer to quantities such as length or capacity that are measured, the data are continuous. Singular: datum.
decimal	relating to base ten. Most commonly used synonymously with decimal fraction, where the number of tenths, hundredths, thousandths, etc. are represented as digits following a decimal point. The decimal point is placed at the right of the unit's column. Each column after the decimal point is a decimal place: for example, the decimal fraction 0.275 is said to have three decimal places. The system of recording with a decimal point is decimal notation.
digit	one of the symbols of a number system, most commonly the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. The number 29 is a two-digit number, for example, but there are three digits in 2.95. The position of the digits conveys place value.
digital clock	a digital clock is usually a 24 hour clock. It displays the time as hours and minutes past midnight: for example, four-thirty in the afternoon is displayed as 16:30. A 12 hour digital clock displays hours past midnight and midday and uses a.m. and p.m. to differentiate.

direct proportion	two quantities or variables are in direct proportion when they increase or decrease in the same ratio: for example, if 5 oranges cost £1, and 10 cost £2, then cost is in direct proportion to quantity – they both double, or both halve; expressed mathematically as $y = kx$ where $k$ is constant.
discrete data	data resulting from a count of separate items or events, eg number of people.
distribution	in recording data, the way in which values in the set of observations are arranged.
distributive	one operation is distributive over another $*$ if $(b * c) = (a b) * (a c)$ . Example: Multiplication is distributive over addition where $4 \times (50 + 6) = (4 \times 50) + (4 \times 6)$ . Multiplication is distributive over subtraction where $4 \times (50 - 2) = (4 \times 50) - (4 \times 2)$ . Division is not distributive over other operations.
equivalent fraction	fraction with the same value as another, eg $\frac{6}{12} = \frac{3}{6} = \frac{1}{2}$ ; these fractions are equivalent.
estimate	to arrive at a rough answer by calculating with suitable approximations for numbers or, in measurement, by using previous experience.
evaluate (an expression)	to work out the value of an expression when numbers have been substituted for variables.
event	used in probability to describe the outcome of an action or happening.
everyday	an adjective used to describe numbers, measures, units, instruments, etc. that fall within the daily lived experience of most people in non-specialist contexts.
expression	a mathematical statement involving variables written in words or symbols, eg length $\times$ width, $a \times b$ (or $ab$ ).
factor	when an integer can be expressed as the product of two or more other integers, these are factors of the first. Example: $24 = 6 \times 4$ , so 6 and 4 are factors of 24. A prime factor is a factor that is a prime number.
familiar	describes contexts, situations, numbers, measures, instruments, etc. of which the learner has some prior knowledge or experience.
formula	any identity, general rule or mathematical law. Plural: formulae.
frequency table	a table for a set of observations showing how frequently each event or quantity occurs.
grouped data	observed data arising from counts and grouped into non-overlapping intervals, eg number of people in different age-groups with intervals 0-9, 10-19, 20-29, 30-39, 40-49, etc.
imperial unit	a unit of measurement historically used in the United Kingdom and other English-speaking countries. Units include inch, foot, yard, mile, acre, ounce, pound, stone, ton, pint, quart and gallon. Now largely replaced by metric units.

integer	any of the positive or negative whole numbers including zero, eg $-2, -1, 0, 1, 2$ .
inverse operations	operations that, when they are combined, leave the entity on which they operate unchanged: for example, addition and subtraction are inverse operations, eg $5 + 6 - 6 = 5$ ; multiplication and division are inverse operations, eg $6 \times 10 \div 10 = 6$ .
line graph	a diagram showing a relationship between two variables.
line symmetry	also reflective symmetry. The property of a shape where one half is a reflection of the other; the 'mirror line' is the axis of symmetry or line of symmetry.
mass	a fundamental characteristic of a body, relating to the amount of matter within it. Mass differs from weight, the force with which a body is attracted towards the earth's centre. Under certain conditions a body can become weightless, whereas mass is constant.
mean	a type of average. The arithmetic mean is the sum of quantities divided by the number of them: for example, the arithmetic mean of 5, 6, 14, 15 and 45 is $(5 + 6 + 14 + 15 + 45) \div 5 = 17$ .
median	a type of average. The median is the middle number or value when all are arranged in ascending order: for example, the median of 5, 6, 14, 15 and 45 is 14. Where there is an even number of values, the arithmetic mean of the two middle values is calculated: for example, the median of 5, 6, 7, 8, 14 and 45 is $(7 + 8) \div 2 = 7.5$ .
metric	relating to the decimal system of measurement based on the metre, kilogram and second.
metric unit	unit of measurement in the decimal system. Metric units include metre, centimetre, millimetre, kilometre, gram and kilogram.
mixed fraction	a whole number and a fractional part expressed as a common fraction, eg $1\frac{2}{3}$ is a mixed fraction; also known as a mixed number.
mixed number	a whole number and a fractional part expressed as a common fraction, eg $1\frac{2}{3}$ is a mixed number; also known as a mixed fraction.
mode	a measure of average - the most frequently occurring in a set of data.
multiple	any number that has a given number as a factor is called a multiple of that factor. Example: $14 = 7 \times 2$ , $49 = 7 \times 7$ and $70 = 7 \times 10$ . So 14, 49 and 70 are all multiples of 7.
negative number	a number less than 0.
non-standard unit	unit of measure which is not fixed or widely agreed, eg pace, cup.
number bond	a pair of numbers with a particular total, eg number bonds to ten, all pairs of numbers with the total 10.

numeral	a symbol used to denote a number. The Roman numerals and I, V, X, L, C, D and M represent the numbers one, five, ten, fifty, one hundred, five hundred and one thousand. The Arabic numerals 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are used in the Hindu-Arabic system giving numbers in the form that is widely used today.
operation	a means of combining numbers, sets or other elements. Addition, subtraction, multiplication and division are four operations on numbers.
ordinal number	a term that describes a position within an order, eg first, second, third, fourth . . . twentieth, etc.
parallel	always equidistant. Parallel lines never meet, however far they are produced. Parallel lines must lie in the same plane.
pattern	a systematic arrangement of numbers, shapes or other elements according to a rule.
percentage	a fraction expressed as the number of parts per hundred and recorded using the notation number%, eg one half can be expressed as 50%, the whole can be expressed as 100%.
perimeter	the length of the boundary of a closed figure.
pi ( $\pi$ )	the symbol used to denote the ratio of the circumference of a circle to its diameter. Approximately 3.142.
pictogram	a particular form of representation of data. Suitable pictures/symbols/icons are used to represent objects. For large numbers one symbol may represent a number of objects; a part symbol then represents a rough proportion of the number.
pie-chart	a particular form of presentation of data. A circle is divided into sectors. The frequency or amount of each quantity is proportional to the angle at the centre of the circle.
place value	the value of a digit that relates to its position or place in a number, eg in 1481 the digits represent thousands, hundreds, tens and units respectively. The value of the 1 on the left is one thousand while the value of the 1 on the right is one.
prime number	a prime number has exactly two factors, itself and 1. Examples: 2 (factors 2, 1), 3 (factors 3, 1); 51 is not prime (factors 51, 17, 3, 1), and 1 itself is not considered a prime number.
probability	the likelihood of an event happening; a measure of certainty. Probability is expressed on a scale from 0 to 1. Where an event cannot happen, its probability is 0 and, where it is certain, its probability is 1. The probability of scoring 1 with a fair die is $\frac{1}{6}$ .
product	the result of multiplication, eg the product of 2, 3 and 4 is 24 ( $2 \times 3 \times 4$ ).
property	any attribute, eg one property of a square is that all sides are equal.

quadrilateral	a polygon with four sides and four interior angles.
range	a measure of spread in statistics; the difference between the greatest and the least in a set of numerical data.
ratio	a comparison of quantities of the same kind, written a:b; for example, a mixture made up of two ingredients in the ratio 3:1 is 3 parts of the first ingredient to 1 part of the second; the first ingredient makes up $\frac{3}{4}$ of the total mixture, the second makes up $\frac{1}{4}$ of the total.
rectangle	a quadrilateral (four-sided polygon) with four right angles. The pairs of opposite sides are equal. If all sides are equal the rectangle is a square. Adjective: rectangular.
regular	a polygon is a regular polygon if all the sides are equal and all the internal angles are equal, eg a regular quadrilateral is a square. When referring to a shape, the adjective regular refers to common 2D or 3D shapes whose areas can be found using a formula, eg a rectangle, circle, cylinder.
right angle	one quarter of a complete turn. An angle of 90 degrees. An acute angle is less than one right angle. An obtuse angle is greater than one right angle but less than two. A reflex angle is greater than two right angles.
round (verb)	to express a number or measurement to a required degree of accuracy, eg 543 rounded to the nearest 10 is 540.
scale	a measuring device usually consisting of points on a line with equal intervals.
sequence	a succession of terms formed according to a rule, in which there is a definite relation between one term and the next and between each term and its position in the sequence, eg 1, 4, 9, 16, 25, etc.
sign	a symbol used to denote an operation, eg addition sign $+$ , subtraction sign $-$ , multiplication sign $\times$ , division sign $\div$ . In the case of directed numbers, the positive $+$ or negative $-$ sign indicates the direction in which the number is measured from the origin along the number line.
simple	an adjective applied to numbers, information, diagrams, charts, etc. that make limited demands on the learner, for example: small whole numbers; numbers that are easier to work with, eg multiples of 2, 5, 10, 100; uncomplicated representations of limited amounts of data, etc.
square number	a number that can be expressed as the product of two equal numbers, eg $36 = 6 \times 6$ , and so 36 is a square number.
standard unit	units that are agreed throughout a community, eg the metre is a standard unit of length. Non-standard units are not widely agreed.
straightforward	describes information, subjects and materials that learners often meet in their work, studies or other activities.
substantial activity	an activity that includes a number of related tasks, where the results of one task will affect the carrying out of the others.
substitute	to assign a value to a variable.

symbol	a letter, numeral or other mark that represents a number, an operation or another mathematical idea: for example, V is the Roman symbol for five, > is the symbol for 'is greater than'.
symmetry	a figure has symmetry if parts can be interchanged without changing the whole. A geometric figure may have reflective symmetry or rotational symmetry. Adjective: symmetrical.
system (of measure)	an agreed system of measure in which units are defined and are in a fixed relationship to each other.
table	an orderly arrangement of information, numbers or letters, usually in rows and columns.
tally	to make marks to represent objects counted.
tessellation	a surface in a plane covered by the transformation (translation, reflection, rotation) of a single shape. Verb: tessellate.
unit	one. A standard used in measuring, eg a metre is a metric unit of length.
unit fraction	a fraction that has 1 as the numerator and whose denominator is a non-zero integer, eg $\frac{1}{2}$ , $\frac{1}{3}$ .
volume	a measure in three-dimensional space, measured in cubes, eg cubic centimetres (cm <sup>3</sup> ), cubic metres (m <sup>3</sup> ).
weight	the force with which a body is attracted towards the earth's centre. In non-scientific contexts, often used synonymously with mass (though technically different). Metric units of weight include kilograms (kg) and grams (g).



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