

**Standards in Mathematics: YEAR FIVE**

**Taken from Chris Quigley's Depth of Learning and adapted to meet the needs of Ashdene Primary School.**



Standard	Cognitive Challenge	Nature of Progress	Typically Pupils Will...	Predominant Teaching Style
<b>Working Towards Expected Standard (WT)</b>	Low level cognitive demand. Involves following instructions.	Acquiring	name, describe, follow instructions or methods, complete tasks, recall information, ask basic questions, use, match, report, measure, list, illustrate, label, recognise, tell, repeat, arrange, define, memorise.	Modelling Explaining
<b>Working at Expected Standard (WA)</b>	Higher level of cognitive demand. Involves mental processing beyond recall. Requires some degree of decision making.	Practising	apply skills to solve problems, explain methods, classify, infer, categorise, identify patterns, organise, modify, predict, interpret, summarise, make observations, estimate, compare.	Reminding Guiding
<b>Exceeding/Working in Greater Depth</b>	Cognitive demands are complex and abstract. Involves problems with multi-steps or more than one possible answer. Requires justification of answers.	Deepening Understanding	solve non-routine problems, appraise, explain concepts, hypothesise, investigate, cite evidence, design, create, prove.	Coaching Mentoring



## Assessment criteria for mathematics: YEAR FIVE

**Note:** Independently or 'without support' means – choosing to by oneself not when asked.

Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To know and use numbers</b>	Counting	Read numbers up to 10 000 000.	The expected standard has not been met	With the support of a teacher, numbers up to 1 000 000 can be read.	With reminders, numbers up to 10 000 000 can be read.
		Use negative numbers in context and calculate intervals across zero.		With the support of a teacher and with concrete objects if necessary, intervals across zero are calculated.	Generally, negative numbers in contexts are used and intervals across zero are calculated.
	Representing	Write numbers up to 10 000 000.		With the support of a teacher, numbers up to 1 000 000 can be written.	Generally, numbers up to 10 000 000 can be written.
		Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.		With reminders, Roman numerals to 100 (I to C) are read and written.  With the support of a teacher Roman numerals to 1000 (M) are recognised.	Generally, Roman numerals are read up to 1000 (M).  Years written in Roman form are beginning to be deciphered.
	Comparing	Order and compare numbers up to 10 000 000.		With the support of a teacher, numbers up to 1 000 000 can be ordered using the first three digits.  Numbers up to 1 000 000 are compared using the first three digits of the number.	Numbers up to 10 000 000 can be ordered using all digits.  Numbers up to 10 000 000 are generally compared using all digits.
	Place value	Round any whole number to a required degree of accuracy. [1]		With support, any whole number can be rounded to the nearest 10, 100, 1000, 10, 000 and 1 000 000.	Generally, any whole number can be rounded to any degree of accuracy. [1]
		Determine the value of each digit in any number. [1]		The value of each digit in six-digit whole numbers is identified with support.  With the support of a teacher and pictorial representations, the value of each number in larger whole numbers is identified.	Generally, the value of each digit in any whole number up to seven-digit numbers, is identified. [1]  When reminders are given, the value of each digit in a number with up to three decimal places is identified. [1]



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To know and use numbers cont.</b>	Solving problems	Solve number and practical problems.	The expected standard has not been met	<p>A wide variety of practical problems and number problems, using all four operations, are solved with the support of a teacher.</p> <p>With the support of a teacher or when prompts are given, problems can be described and articulated and equipment to solve the problem can be chosen.</p> <p>When prompts or guidance are given, patterns can be identified in results.</p> <p>With reminders, answers are checked and corrections are made.</p>	<p>Using all four operations, a wide variety of practical problems and number problems can generally be solved.</p> <p>Information that is important for solving problems is identified.</p> <p>Questions about a problem can be asked and answered independently.</p> <p>Approaches to problem solving are reviewed and improved for next time.</p> <p>Generally, answers are checked and corrections are made.</p>
<b>To add and subtract</b>	Complexity	Solve multi-step addition and subtraction problems in contexts, deciding which operations and methods to use and why.	The expected standard has not been met	With the support of a teacher, multi- step addition and subtraction problems can be broken down into steps and solved.	<p>Generally, multi-step addition and subtraction problems are broken down into steps and solved.</p> <p>Mistakes may still occur when independently solving multi-step problems, due to confusing which operation to use when solving a problem.</p>
	Methods	Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction). [3]		With the support of a teacher, four-digit whole numbers can be added and subtracted using formal written methods.	Whole numbers with four digits or more can be added and subtracted correctly using formal written methods. [3]
		Add and subtract numbers mentally with increasingly large numbers. [2]		Mental strategies are developing for mental calculations of simpler addition and subtraction problems.	Mental strategies are developing to increase speed during adding and subtracting mentally for problems involving two whole numbers with three digits, e.g. $323 + 356 = 679$ . [2]



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To add and subtract cont.</b>	Checking	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.	The expected standard has not been met	When modelling is provided, calculations are rounded to check and to determine a level of accuracy.	Generally, calculations are rounded to check and determine levels of accuracy, in the context of a problem.
	Using number facts	Add and subtract negative integers.		<p>With the support of a teacher and the use of practical contexts, such as number temperature, negative numbers can be added and subtracted.</p> <p>With the support of a teacher, there is counting through 0.</p>	Negative integers are added and subtracted; however, reminders or practical contexts to support understanding may be necessary.
<b>To multiply and divide</b>	Complexity	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	The expected standard has not been met	<p>With support, problems involving the four operations are undertaken.</p> <p>There is an understanding of the meaning of the equals sign as 'the same as'.</p>	<p>Generally, problems involving the four operations can be solved independently and accurately.</p> <p>There is a secure understanding of the meaning of the equals sign.</p>
		Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.		<p>With support from a teacher problems involving all four operations can be solved.</p> <p>With support scaling by simple fractions is undertaken.</p>	<p>Generally, problems involving all four operations are identified and solved.</p> <p>Generally, scaling by simple fractions is understood, although some reminders may be necessary.</p>
		Use knowledge of the order of operations to carry out calculations involving the four operations.		<p>With support, written methods for all four operations are used.</p> <p>With the support of a teacher, multistep problems are answered using knowledge of the order of operations to carry out calculations.</p>	Generally, multi-step problems can be answered using knowledge of the order of operations to carry out calculations.



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To multiply and divide</b>	Methods	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method for multiplication. [3]	The expected standard has not been met	With support, numbers up to 4 digits are multiplied by a two-digit whole number using the formal written method for multiplication.	Generally, numbers up to 4 digits are multiplied by a two-digit whole number using the formal written method for multiplication. [3]  Mistakes are identified and corrected. [3]
		Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole numbers, fractions, or by rounding, as appropriate for the context. [3]		With support, long division is undertaken.  With support remainders are explained in terms of the context.	Generally long division is understood and used correctly. [3]  Remainders are generally accurately interpreted. [3]
		Divide numbers up to 4 digits by a two-digit number using the formal written method of short division, where appropriate, interpreting remainders according to the context. [3]		With support, short division is undertaken.  With support, remainders are explained in terms of the context.	Generally, short division is understood and used correctly. [3]  Remainders are generally accurately interpreted. [3]
		Perform mental calculations, including with mixed operations and large numbers. [2]		Mental strategies are developing in order to answer mental calculations, including with mixed operations, e.g. $5 \times 3 + 6 = 21$	Strategies to solve mental calculations, including with mixed operations and large numbers are developed and applied. Answers are generally correct. [2]  Multiplication and division questions involving multiples of 10, 100, 1000, etc. are answered by using times table facts, e.g. $6 \times 6 = 36$ , so $60 \times 6 = 360$ . [2]  Simple decimals can be multiplied by a one-digit number. [2]



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To multiply and divide cont.</b>	Checking	Estimate and use inverse operations and rounding to check answers to a calculation.	The expected standard has not been met	With the support of a teacher, estimation and the inverse relationship between multiplication and division is used to check the answers to a calculation.	Generally, the inverse relationship between multiplication and division can be used to check answers.  Estimations and rounding are used to check answers to a calculation.
	Using multiplication and division facts	Identify common factors, common multiples and prime numbers.		With support, knowledge of the multiplication tables is used to identify common factors and common multiples.  There is an awareness of the terminology 'prime number' and its meaning as whole numbers greater than 1 that have no positive divisors other than 1 and itself.	Generally, common factors and common multiples are identified.  Generally, prime numbers are understood and identified.
		Establish whether a number up to 100 is prime and recall prime numbers up to 19.		With support, the prime numbers 2, 3, 5, 7, 11, 13, 17, 19 are recalled.  With support, prime numbers up to 100 are identified.	Generally, prime numbers up to 19 are recalled at an increasing speed.  Generally, prime numbers up to 100 are recognised.
		Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.		Generally whole numbers are multiplied and divided by 10 or 100 independently.  With the support of a teacher and apparatus, such as a place value grid, decimals up to one decimal place can be multiplied and divided by 10 or 100.	Multiplication and division questions involving multiples of 10, 100, 1000, etc. are answered correctly.  Generally, decimal numbers are multiplied and divided by 10, 100 and 1000.
		Recognise and use square numbers and cube numbers, and the notation for squared ( $^2$ ) and cubed ( $^3$ ).		There is an emerging understanding of square numbers and cube numbers and the notion for both of these ( $^2$ and $^3$ ).	Generally, there is a secure understanding that a square number is an integer multiplied by itself and the notation for this is 2.  There is an emerging understanding of cubed numbers being an integer multiplied by itself twice and that the notation for this is 3.



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To use fractions</b>	Recognising fractions	Compare and order fractions whose denominators are all multiples of the same number.	The expected standard has not been met	With support, fractions with the same denominators are ordered.	Generally, fractions whose denominators are all multiples of the same number are ordered and compared.
		Compare and order fractions, including fractions $> 1$ .		With the support of a teacher, pictorial representations and concrete objects, fractions whose denominators are all multiples of the same number are ordered.	Generally fractions $> 1$ are ordered.
		Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $> 1$ as a mixed number.		With support, fractions, including mixed fractions, e.g. 1., 3., etc. are compared and ordered.	Generally, fractions, including mixed fractions, e.g. 1., 3., etc. are compared and ordered.
		Round decimals with two decimal places to the nearest whole number and to one decimal place.		With support, numbers are converted between mixed numbers and improper fractions.	Numbers are converted between mixed numbers and improper fractions with prompts or reminders if necessary.
		Read, write, order and compare numbers with up to three decimal places. [1]		With prompts, decimals with one decimal place are rounded to the nearest whole number.	Generally, decimals with two decimal places are rounded to the nearest whole number.  Generally decimals with two decimal places are rounded to one decimal place.
		Identify the value of each digit in numbers given to three decimal places.		With the support of a teacher, problems involving numbers up to three decimal places are solved.	Numbers with up to three decimal places can be read, written and ordered. [1]
		Solve problems involving numbers up to three decimal places.		With support, the value of each digit in numbers given to three decimal places, is identified.	Generally, the value of each digit in numbers given to three decimal places, is identified.
		Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal. [4]		With support, problems involving up to three decimal places are undertaken.	Problems involving numbers up to three decimal places are solved.
	There is an emerging understanding that the term per cent relates to 'number of parts per hundred'.	The per cent symbol (%) is understood and related to 'number of parts per hundred'. [4]			
	With the support of a teacher, percentages can be written as a fraction with denominator 100 and as a decimal.	Percentages as a fraction with denominator 100 and as a decimal are written, e.g. $30/100 = 30\% = 0.30$ . [4]			



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To use fractions cont.</b>	Equivalence	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	The expected standard has not been met	Generally, 0.5, 0.25 and 0.75 can be written and read as fractions.	Generally, equivalent fractions of a given fraction are identified, named and written. With more complex fractions, visual prompts or reminders may be needed.
		Read and write decimal numbers as fractions.		With the support of a teacher, common decimal numbers, 0.5, 0.1–0.9, 0.25 and 0.75, can be converted into fractions.	Common decimal numbers, 0.5, 0.1–0.9, 0.25 and 0.75, can be converted into fractions with reminders if necessary.
		Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.		Tenths are recognised in a number, with prompts where necessary.  With support, tenths and hundredths are recognised in a number.	Thousandths are recognised in numbers up to three decimal places when prompts are given.  Generally, thousandths can be related to tenths, hundredths and decimal equivalents.
		Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.		With support, fractions can be simplified to express fractions in the same denomination.	Generally, fractions can be reduced to their simplest form by cancelling common factors and to express fractions in the same denomination.
		Associate a fraction with division and calculate decimal fraction equivalents.		With support, numerators are divided by denominators to provide decimal fraction equivalents.	Generally, numerators are divided by denominators to provide decimal fraction equivalents.
		Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.		With prompts and support, equivalences between fractions: 1, 1/2, 1/4, 2/4, 3/4; decimals: 1, 0.5, 0.25, 0.75 and percentages: 100%, 50%, 25%, 75% are recalled and used.	Generally, equivalence between most fractions, decimals and percentages are recalled and used in a number of contexts.
	Solving problems	Add and subtract fractions with the same denominator and denominators that are multiples of the same number.		With support, fractions with the same denominator are added and subtracted. With support, denominators that are multiples of the same number are added and subtracted independently, e.g. $\frac{1}{3} + \frac{2}{6} = \frac{2}{3}$ .	Generally, fractions with the same denominator are added and subtracted.  Generally, denominators that are multiples of the same number are added and subtracted independently, e.g. $\frac{1}{3} + \frac{2}{6} = \frac{2}{3}$ .
		Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.		With support, fractions with different denominators and mixed numbers can be added and subtracted by using the concept of equivalent fractions.	Fractions with different denominators and mixed numbers can be added and subtracted by using the concept of equivalent fractions.



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To use fractions cont.</b>		Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	The expected standard has not been met	With the support of a teacher and other materials and diagrams, proper fractions can be multiplied by whole numbers.	Generally, proper fractions and mixed numbers can be multiplied by whole numbers using materials and diagrams.
		Multiply simple pairs of proper fractions, writing the answer in its simplest form.		With support, simple pairs of proper fractions can be multiplied, the answer being written in its simplest form.	Generally, simple pairs of proper fractions can be multiplied, the answer being written in its simplest form.
		Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25. [5]		Simple equivalence between fractions, decimals and percentages, e.g. $\frac{1}{4}$ , 0.25 and 25% are recognised. Support from materials and diagrams may be necessary.	Simple equivalences between fractions, decimals and percentages, (e.g. $\frac{1}{4}$ , $\frac{2}{4}$ , $\frac{1}{3}$ and $\frac{1}{2}$ ) can be used to solve problems independently. [5]  Generally, problems which require knowing percentage and decimal equivalents of $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{4}{5}$ and fractions with a denominator of a multiple of 10 or 25, are solved. [5]
		Divide proper fractions by whole numbers.		With support, proper fractions can be divided by whole numbers.	Generally, proper fractions can be divided by whole numbers.
		Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.		With support, numbers are multiplied by 10, 100 and 1000.  With the support of a teacher, numbers are divided by 10, 100 and 1000 giving answers up to three decimal places.	Generally, numbers are multiplied by 10, 100 and 1000.  Generally, numbers are divided by 10, 100 and 1000 giving answers up to three decimal places.
		Solve problems involving the calculation of percentages and the use of percentages for comparison.		With support, problems involving the calculation of percentages are calculated.  With support, problems that involve calculating and comparing percentages are undertaken.	Generally, problems involving the calculation of percentages are calculated.  Generally, problems that involve calculating and comparing percentages are solved.
		Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.		Problems involving unequal sharing and grouping can be solved with the support of a teacher or practical apparatus.	Problems involving unequal sharing and grouping, using knowledge of fractions and multiples, can be solved.



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To understand the properties of shapes</b>		Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.	The expected standard has not been met	When reminders are given, 3-D shapes are identified from 2-D representations.	Generally, 3-D shapes are identified from 2-D representations.
		Know that angles are measured in degrees; estimate and compare acute, obtuse and reflex angles.		With support, it is understood that angles are measured in degrees.  With support, angles are estimated and compared and described as acute, obtuse or reflex angles.	Generally, it is understood that angles are measured in degrees.  Generally, acute, obtuse and reflex angles are estimated and compared.
		Draw given angles, and measure them in degrees ( $^{\circ}$ ).		With the support of a teacher, given angles can be drawn and measured.	Generally, given angles can be drawn and angles can be measured to the nearest $5^{\circ}$ .
		Identify: <ul style="list-style-type: none"><li>• Angles at a point and one whole turn (total <math>360^{\circ}</math>)</li><li>• Angles at a point on a straight line and a turn (total <math>180^{\circ}</math>)</li><li>• Other multiples of <math>90^{\circ}</math></li></ul>		With reminders, angles at a point and one whole turn (total $360^{\circ}$ ), angles at a point on a straight line and a turn (total $180^{\circ}$ ) are identified.	Generally, angles at a point and one whole turn (total $360^{\circ}$ ), angles at a point on a straight line and a turn (total $180^{\circ}$ ) and other multiples of $90^{\circ}$ are identified.



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<p><b>To understand the properties of shapes</b></p>		<p>Use the properties of rectangles to deduce related facts and find missing lengths and angles. [8]</p>	<p>The expected standard has not been met</p>	<p>With support there is an understanding of the properties of a rectangle and this awareness is used to be able to find missing lengths.</p>	<p>Generally, the properties of a rectangle are used to be able to find missing lengths and angles. [8]</p>
		<p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p>		<p>With support, simple properties, such as equal sides, are used to distinguish between regular and irregular polygons.</p>	<p>Generally, reasoning about equal sides and angles is used to distinguish between regular and irregular polygons.</p>
		<p>Draw 2-D shapes using given dimensions and angles.</p>		<p>With the support of a teacher, common 2-D shapes, such as rectangles, are drawn using given dimensions and angles.</p>	<p>Generally, 2-D shapes are drawn using given dimensions and angles.</p>
		<p>Recognise, describe and build simple 3-D shapes, including making nets.</p>		<p>When prompts are given, nets for cubes and cuboids can be recognised and built.</p>	<p>Nets for simple 3-D shapes can be recognised, described and built.</p>
		<p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.</p>		<p>Simpler geometric 2-D and 3-D shapes can be compared and classified.</p>	<p>Generally, geometric shapes can be compared and classified based on their properties and sizes, and unknown angles in any triangles, quadrilaterals and regular polygons can be found.</p>
		<p>Illustrate and name parts of circles, including radius, diameter and circumference, and know that the diameter is twice the radius.</p>		<p>There is an emerging understanding of the terminology 'radius', 'diameter' and 'circumference'. However, this vocabulary is not used independently.</p>	<p>Parts of circles can be illustrated and named using the terminology 'radius', 'diameter' and 'circumference'.  Generally, the terms 'parallel' and 'perpendicular' are understood.</p>
		<p>Recognise angles where they meet at a point, are on a straight line or are vertically opposite, and find missing angles.</p>		<p>There is an emerging awareness of the terminology 'parallel' and 'perpendicular'.</p>	<p>Generally, angles on a straight line and missing angles in a triangle can be calculated.</p>



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To use measures</b>		Convert between different units of metric measure. [7]	The expected standard has not been met	With the support of a teacher, metric measures are converted between different units.	Generally, lengths can be measured using mm to within 2mm. [7]
		Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. [7]		With reminders, measurements of length and distance are converted.	Generally, metric measures are converted between different units. [7]
		Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. [7]		With support, the equivalences between metric units and common imperial units are understood.	The equivalences between metric units and common imperial units are understood. [7]
		Calculate and compare the area of rectangles (including squares), using standard units (square centimetres (cm <sup>2</sup> ) and square metres (m <sup>2</sup> )) and estimate the area of irregular shapes. [7]		The perimeter of simple, regular shapes (such as square, rectangle, hexagon, pentagon) can generally be calculated when reminders are given.	Generally, perimeters of composite rectilinear shapes (shapes made up of two shapes) can be measured and calculated in mm and cm. [7]
		Estimate volume and capacity. [7]		With the support of a teacher and by using strategies such as counting squares inside a shape or finding the number of squares in a row and multiplying by the number of rows, the area of rectangles can be calculated using standard units – cm <sup>2</sup> and m <sup>2</sup> .	The area of rectangles, including squares, can be calculated using standard units – cm <sup>2</sup> and m <sup>2</sup> . [7]
		Solve problems involving converting between units of time. [7]		With prompts, capacity can be estimated.	Capacity and volume can be estimated and are generally accurate. [7]
		Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling. [7]		With the support of a teacher, practical apparatus and concrete objects, problems involving converting between units of time and involving measure are solved.	Generally, problems involving converting units of time are solved. [7]
		Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. [7]		When reminders are provided and with pictorial representations if necessary, time durations over the hour can be calculated.	Time durations that are over the hour can be calculated and, with prompting, a timetable can be interpreted and used. [7]
				With the support of a teacher, measures of mass, volume and time are converted from a smaller unit of measure to a larger unit. These can also be read and written.	Using all four operations, problems involving measure and using decimal notation are solved with prompts or reminders if needed. [7]
				With support, problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate, are solved.	Generally, problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate, are solved. [7]



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To use measures</b>		Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. [7]	The expected standard has not been met	When support is provided, measurements are converted between standard units of length, mass, volume and time (from a smaller unit to a larger unit, and vice versa).	Measurements are converted between standard units of length, mass, volume and time (from a smaller unit to a larger unit, and vice versa). Decimal notation up to three decimal places is used, read and written. [7]
		Convert between miles and kilometres. [7]		With support, the conversion between miles and kilometres is calculated.	Generally, the conversion between miles and kilometres is calculated. [7]
		Recognise that shapes with the same area can have different perimeters and vice versa. [7]		With support, it is recognised that shapes with the same area can have different perimeters and vice versa.	It is understood that shapes with the same area can have different perimeters and vice versa. [7]
		Recognise when it is possible to use formulae for calculating the area and volume of shapes. [7]		With support, formulae for calculating the area and volume of shapes are used.	During problem-solving activities, it is recognised when it is possible to use formulae for calculating the area of shapes. [7]
		Calculate the area of parallelograms and triangles. [7]		With support, the formula $A = \frac{1}{2}(b \cdot h)$ where A= Area of triangle, b= length of base of triangle, h= length of height of triangle is used to calculate the area of a triangle.  With support, triangles are recognised as part of a parallelogram.	Generally, the formula $A = \frac{1}{2}(b \cdot h)$ where A= Area of triangle, b= length of base of triangle, h= length of height of triangle is used to calculate the area of a triangle. [7]  Generally, triangles are identified within parallelograms and used to calculate the area of a parallelogram. [7]
		Calculate, estimate and compare the volume of cubes and cuboids using standard units, including cubic centimetres ( $\text{cm}^3$ ) and cubic metres ( $\text{m}^3$ ), and extending to other units. [7]		There is an emerging awareness of the formula for the volume of cubes and cuboids (length x width x depth). These are calculated using standard units and recorded using $\text{cm}^3$ and $\text{m}^3$ .	Generally, the formula for the volume of cubes and cuboids (length x width x depth) is used to estimate and compare the volume of cubes and cuboids. [7]  These are calculated using standard units and recorded using $\text{cm}^3$ and $\text{m}^3$ . [7]
<b>To use statistics</b>		Solve comparison, sum and difference problems using information presented in a line graph.	The expected standard has not been met	With support, line graphs are used to solve comparison, sum and difference problems.	Generally, line graphs are used to solve comparison, sum and difference problems.
		Complete, read and interpret information in tables, including timetables.		With support, a range of tables can be used to record data.	Generally, a range of tables can be used to record data.
				With support, information in tables, including timetables is interpreted.	Generally, information in tables can be read and interpreted.



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To use statistics cont.</b>		Interpret and construct pie charts and line graphs and use these to solve problems.	The expected standard has not been met	<p>With the support of a teacher, an appropriate scale is chosen and used when constructing graphs and charts.</p> <p>When prompts are given, simple pie charts can be constructed and interpreted.</p> <p>When prompts are given, the scale on bar graphs and line graphs can be interpreted.</p> <p>Generally, questions asked about a set of data are responded to.</p>	<p>Generally, appropriate scales are chosen for graphs.</p> <p>Frequency tables can be used to record discrete data independently.</p> <p>Pie charts are constructed and interpreted and the scale on bar graphs and line graphs can be interpreted. The information gathered from this interpretation can be used to solve problems.</p> <p>Generally, the difference between discrete and continuous data is recognised.</p> <p>The outcomes from data can be described and predicted, using the language of chance and likelihood.</p>
		Calculate and interpret the mean as an average.		<p>With support, the mode and range are understood and used to describe a set of data and the mean can be calculated and interpreted as an average.</p> <p>With support, two sets of results are described and compared using the range, mode, mean or median.</p>	<p>Generally, the mode and range are understood and used to describe a set of data and the mean can be calculated and interpreted as an average.</p> <p>Generally, two sets of results are described and compared using the range, mode, mean or median.</p>



Learning Objective		Key Indicator(s)	Working Towards The Expected Standard (WT)	Working At The Expected Standard (WA)	Exceeding The Expected Standard/Greater Depth (Exc)
<b>To use algebra</b>		Use simple formulae. [6]	The expected standard has not been met	There is an emerging understanding of how to solve balancing equations, such as: $20 + x = 40 - 10$ .  Simple formulae expressed in words are used.	Simple formulae can be used, with reminders if necessary. [6]
		Generate and describe linear number sequences.		With support, linear number sequences can be described and generated.	Linear number sequences can be described and generated.
		Express missing number problems algebraically.		With support, missing number problems can be expressed algebraically.	Generally, missing number problems can be expressed algebraically.
		Find pairs of numbers that satisfy an equation with two unknowns.		With support, pairs of numbers that satisfy an equation, with two unknowns, can be found.	Generally, pairs of numbers that satisfy an equation, with two unknowns, can be found.
		Enumerate possibilities of combinations of two variables.		With support, possibilities of combinations of two variables can be enumerated.	Generally, possibilities of combinations of two variables can be enumerated.