

## MATHS

### Expectation Reception

SKILLS, KNOWLEDGE AND UNDERSTANDING		Ages and Stages	Reference		
1	Count up to 3 or 4 objects by saying one number name for each	40-60 months			
2	Counts out up to 6 objects from a larger group	40-60 months			
3	Selects the correct digit to represent 1 - 5	40-60 months			
4	Selects the correct digit to represent 1 - 10	40-60 months			
5	Counts an irregular arrangement of up to 5 objects	40-60 months			
6	Counts objects to 5 and beginning to count beyond 5	40-60 months			
7	Counts an irregular arrangement of up to 10 objects	40-60 months			
8	Counts objects to 10 and beginning to count beyond 10	40-60 months			
9	Estimate how many objects they can see and checks by counting them	40-60 months			
10	Can use the language of <i>more</i> and <i>fewer/less</i> to compare 2 sets of objects	40-60 months			
11	Finds the total numbers of items in two groups by counting all of them	40-60 months			
12	Says the number 1 more than a given number (1 - 5)	40-60 months			
13	Says the number 1 more than a given number (1 - 10)	40-60 months			
14	Finds 1 more or less from a group of up to 5 objects	40-60 months			
15	Finds 1 more or less from a group of up to 10 objects	40-60 months			
16	Can count reliably from 1 -20 and 20 - 1	ELG			
17	Can place digits in order 1 - 5	ELG			
18	Can place digits in order 1 - 10	ELG			
19	Can place digits in order 1 - 20	ELG			
20	Can add 2 single digit numbers	ELG			
21	Can subtract 2 single digit numbers	ELG			

22	Solve problems involving doubling	ELG			
23	Solve problems involving halving	ELG			
24	Solve problems involving sharing / grouping	ELG			
<b>MEASUREMENT</b>					
25	Can use everyday language to talk about length	ELG			
26	Can use everyday language to talk about weight	ELG			
27	Can use everyday language to talk about capacity	ELG			
28	Can use everyday language to talk about position	ELG			
29	Order 2 or 3 items by length or height	40-60 months			
30	Order 2 or 3 items by weight	40-60 months			
31	Order 2 or 3 items by capacity	40-60 months			
32	Can use everyday language related to time	40-60 months			
32	Beginning to use everyday language related to money	40-60 months			
34	Can order and sequence familiar events	40-60 months			
<b>GEOMETRY</b>					
35	Can use mathematical language to describe shapes i.e. round, tall, straight, curved	ELG			
36	Use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes	ELG			
37	Beginning to use simple mathematical vocabulary to describe shapes	40-60 months			
38	To be able to select a particular named shape	40-60 months			
39	To be able to recognise visual patterns	ELG			
40	To be able to describe visual patterns	ELG			
41	To be able to create visual patterns	ELG			

## MATHS

### Expectation Year 1

NUMBER AND CALCULATION		Reference		
1	I can count up to 20 (forwards)			
2	I can count up to 50 (forwards)			
3	I can count up to <b>and across</b> 100 (forwards)			
4	I can count from 0 20 (backwards)			
5	I can count from 0 50 (backwards)			
6	I can count from 0 100 (backwards)			
7	I can count on from a given number			
8	I can read and write numbers to 20			
9	I can read and write numbers to 50			
10	I can read and write numbers to 100			
11	I can write numbers up to 20 in words			
12	I can count in 2's, 5's and 10's (multiples of)			
13	I can say 1 more or 1 less than a given number			
14	I understand these words when I use them: Equal to More than Fewer than Most least			
15	I can use pictures / objects to show how many numbers are in a group			
16	I can use a simple number line			
17	I know my number bonds to 10			
18	I know my number bonds to 20			
19	I can add a 1-digit to a 2-digit number (up to 20)			
20	I can subtract a 1-digit to a 2-digit number (up to 20)			
21	I understand and can use the +, - and = signs			
22	Read and understand mathematical statements involving +, - and = signs			
23	I can solve addition problems (1 step)			
24	I can solve subtraction problems (1 step)			
25	I can solve basic missing number problems, such as $7 = [] - 9 / 8 + [] = 10$			
26	I can solve multiplication problems using pictures and drawings to help me (1 step)			
27	I can solve division problems using pictures and drawings to help me (1 step)			
FRACTIONS, DECIMALS AND PERCENTAGES				
28	I can find $\frac{1}{2}$ half of a shape and / or object			
29	I can find $\frac{1}{2}$ half of a number			
30	I can find $\frac{1}{4}$ half of a shape and / or object			
31	I can find $\frac{1}{4}$ half of a number			

## MEASUREMENT

<b>32</b>	I can put events order / sequence events in chronological order			
<b>33</b>	I can use these words: before / after / next			
<b>34</b>	I can use these words: first / last			
<b>35</b>	I can use these words: today / tomorrow / yesterday Afternoon / evening			
<b>36</b>	I can read and write o'clock and half past and draw hands on the clock face.			
<b>37</b>	I can order the days of the week			
<b>38</b>	I can order the months of the year			
<b>39</b>	I can measure and record: length			
<b>40</b>	I can measure and record: height			
<b>41</b>	I can measure and record: weight			
<b>42</b>	I can measure and record: capacity			
<b>43</b>	I can measure and record: time			
<b>44</b>	I can solve simple problems involving: Length, Height, Weight, Capacity, Time			
<b>45</b>	Know different coins (amounts 2p 5p 10p etc.)			
<b>GEOMETRY</b>				
<b>46</b>	I can name 2D shapes: square / rectangle / triangle / circle			
<b>47</b>	I can name 3D shapes: cubes / cuboid / pyramid / sphere			
<b>48</b>	I can describe half turns			
<b>49</b>	I can describe quarter turns			
<b>50</b>	I can describe three-quarter turns			



## MATHS

### Expectation Year 2

NUMBER AND CALCULATION		Reference		
1	Count in steps of 2, 3 and 5 from 0			
2	Count on in tens from any number, forward or backward			
3	Compare and order numbers from 0 to 100 using < > and =			
4	Identify, show and estimate numbers in different ways, including the number line			
5	Read and write numbers to at least 100 in digits and words			
6	Recognise the place value of each digit in a two-digit number (TU)			
7	Recall and use addition and subtraction facts to 20 fluently			
8	Recognise odd and even numbers			
9	Recall and use addition and subtraction facts to 100 fluently			
10	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables			
11	Add and subtract two-digit numbers and ones using objects and/or pictorial representations			
12	Add and subtract two-digit numbers and tens using objects and/or pictorial representations			
13	Add and subtract two two-digit numbers using objects and/or pictorial representations			
14	Using objects and/or pictorial representations add three one-digit numbers			
15	Show that addition of two numbers and be done in any order but subtraction cannot			
16	Recognise and use the inverse relationship between addition and subtraction to solve basic missing number calculations			
17	Recognise multiplication of two numbers can be done in any order but division cannot			
18	Calculate number statements multiplication and division (with multiplication tables knowledge) and write them using $\times$ , $\div$ and =			
19	Solve problems involving multiplication and division using objects, arrays, repeated addition and number facts			
20	Use place value and number facts to solve problems			
21	Solve problems with addition and subtraction using objects, pictorial representations			
FRACTIONS, DECIMALS AND PERCENTAGES				
22	Recognise, find and name fractions: $\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ of a shape, set of objects or quantity			
23	Write fractions: $\frac{1}{4}$ , $\frac{2}{4}$ $\frac{3}{4}$ of a shape, set of objects or number			
24	Recognise, find and name $\frac{1}{3}$ of a shape, set of objects or number			

25	Write the fraction $\frac{1}{3}$ of a shape, set of objects or number			
26	Write simple fractions: $\frac{1}{2}$ of 6 = 3 $\frac{1}{4}$ of 8 = 2 etc.			
27	Understand the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$			
<b>MEASUREMENT</b>				
28	Compare and sequence intervals of time			
29	Know the number of minutes in an hour and the number of hours in a day			
30	Tell the time and <b>write the time in 5 minute intervals</b> (analogue), including o'clock, half past, quarter past and quarter to			
31	Draw hands on a clock face to show these times ( <i>o'clock, quarter past, half past and quarter to</i> )			
32	Choose and use appropriate units to measure length / height ( <i>using appropriate equipment</i> )			
33	Choose and use appropriate units to measure mass ( <i>using appropriate equipment</i> )			
34	Choose and use appropriate units to measure temperature ( <i>using appropriate equipment</i> )			
35	Choose and use appropriate units to measure volume / capacity ( <i>using appropriate equipment</i> )			
36	Compare and order: Lengths ( <i>and record the order using &lt;, &gt; and =</i> ) Mass ( <i>and record the order using &lt;, &gt; and =</i> ) Volume / capacity ( <i>and record the order using &lt;, &gt; and =</i> ) Recognise and use the symbols pounds (£) and pence (p) Combine amounts to make a particular value (£ and / or p)			
37	Find different combinations of coins that equal the same amount up to 20p			
38	Solve simple practical problems involving addition and subtraction of money of the same unit, including change given			
<b>GEOMETRY</b>				
39	Identify and describe the properties of 2D shapes, including the number of sides and line of symmetry			
40	Identify and describe the properties of 3D shapes, including the number of faces, vertices and edges			
41	Identify 2D shapes ( <i>faces</i> ) on the surface of 3D shapes			
42	Compare and sort common 2D and 3D shapes / objects			
43	To describe position and direction using the vocabulary: forward, backward; left, right turns being quarter turns (right angle), <b>half turns and three-quarter turns etc.</b>			
44	Order / arrange combinations of mathematical objects in patterns / sequences			
<b>STATISTICS</b>				
45	Understand and make simple pictograms			
46	Understand and make simple tally charts			
47	Understand and make simple block diagrams			
48	Understand and make simple tables			
49	Ask and answer simple questions by counting the number of objects			
50	Ask and answer questions simple questions by sorting into categories / groups			

## MATHS

### Expectation Year 3

NUMBER AND CALCULATION		Reference		
1	Count on from 0 in multiples of 2, 3, 4, 5, 8, 10, 50 and 100			
2	Find 10 or 100 more or less than a given number			
3	Compare and order numbers up to 1000			
4	Find record and estimate numbers in different ways, including practical representations			
5	Read and write numbers up to 1000 in digits and words			
6	Know the value of each digit in a 3 digit number (HTU)			
7	I can use number bonds to help me add and subtract			
8	I can use number bonds to count on or back from a number to find the difference			
9	I can use number bonds to count on to find the difference			
10	Add and subtract numbers with up to 3 digits using the columnar method			
11	Mentally add 1, 10 or 100, and subtract 1, 10 or 100 from a three digit number.			
12	Can check answers by using the inverse operation			
13	Understand multiplication as repeated addition			
14	Understand division as repeated subtraction			
15	I know my 2, 3, 4, 5, 8, 10 multiplication tables, including inverse number facts			
16	Use my multiplication facts to help me solve TU x U			
17	Write and calculate statements for multiplication and division using multiplication facts, including for two-digit numbers multiplied by one-digit numbers			
18	Solve practical problems involving number			
19	Solve basic missing number problems using number calculation			
20	Solve problems by choosing the correct operation and appropriate method: addition and subtraction and multiplication and division			
21	Solve simple scaling problems (possibly using numicon or fraction walls)			
FRACTIONS, DECIMALS AND PERCENTAGES				
22	Know, find and write fractions of whole numbers (e.g. finding quarters by halving and halving again or $\frac{1}{4} =$ "one in every four") including practical resources and visual learning aids			
23	Recognise that tenths happen from dividing an object into 10 equal parts and in dividing one-digit numbers by 10. Count in tenths			
24	Recognise and use fractions as numbers ( $\frac{1}{4}$ $\frac{1}{2}$ )			
25	Compare and order fractions of different sizes ( $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ ) supported			



	by practical resources and visual learning aids			
26	Find and show equivalent fractions using diagrams and other visual learning aids			
27	Add and subtract fractions with the same denominator within one whole unit / one (e.g $5/7 + 1/7 = 6/7$ ) using diagrams and other visual learning aids			
<b>MEASUREMENT</b>				
28	Practically add and subtract money and give change			
29	Compare the time taken of different events			
30	Estimate the time taken of different events			
31	Read the time accurately to five minute intervals on an analogue clock and understand/read Roman Numerals from I to XII			
32	Embed reading the time accurately to five minute intervals on a 24-hour clock and read time with increased accuracy to the nearest minute.			
33	To correctly use time related vocabulary: a.m./p.m., morning, afternoon, noon and midnight			
34	Measure and compare: lengths (m/cm/mm); mass (kg/g) and volume/capacity (ml/l)			
35	Know how many seconds in a minute / days in a month; a year			
36	Add and subtract: lengths (m/cm/mm); mass (kg/g) and volume/capacity (ml/l)			
37	Measure the perimeter of simple 2D shapes			
<b>GEOMETRY</b>				
38	Draw 2D shapes accurately			
39	Recognise 2D shapes in different orientations and describe them			
40	Make 3D shapes using modelling materials			
41	Recognise 3D shapes in different orientations and describe them			
42	Identify right angles			
43	Understand one right angle makes a $\frac{1}{4}$ turn, two right angles make a $\frac{1}{2}$ turn, three make $\frac{3}{4}$ of a turn and four make 1 full turn.			
44	Identify whether an angle is greater or less than a right angle			
45	Recognise there are angles in shapes and turns			
46	Identify horizontal and vertical lines			
47	Identify pairs of perpendicular lines			
45	Identify pairs of parallel lines			
<b>STATISTICS</b>				
46	Interpret and present data using bar charts			
47	Interpret and present data using pictograms			
48	Interpret and present data using tables			
49	Solve one-step and two-step problems (e.g. How many more? How many less?) using information presented in bar charts, pictograms and tables			

## MATHS

### Expectation Year 4

NUMBER AND CALCULATION		Reference		
1	Count backwards through zero to include negative numbers			
2	Count on and back in multiples of 6, 7, 9, 25, 100 and 1000 from different starting positions			
3	Recall multiplication facts (and inverse) for multiplication tables up to 12 x 12			
4	Use place value facts / knowledge to help me multiply or divide mentally (related facts: $4 \times 8 = 32$ / $4 \times 80 = 320$ )			
5	To be able to recognise and use factor pairs and to understand commutability ( $4 \times 5 = 20$ / $5 \times 4 = 20$ )			
6	To be able to recognise and use factors and multiples			
7	To understand properties of number, such as 300 halved is 150 / 30 halved is 15 etc.			
8	Find 1000 more or less than a given number			
9	Order and compare numbers beyond 1000			
10	Recognise each digit in: ThHTU / HTU / TU and understand its value due to the place value number system ( $\times 10$ smaller/larger)			
11	Round any number to the nearest 10, 100 or 1000 including decimals with one decimal place to the nearest whole number including £)			
12	Add and subtract numbers up to 4 digits using formal written methods of columnar addition and subtraction			
13	Estimate answers to calculations and use the inverse operation to check accuracy			
14	Multiplication of TU x U, HTU x U and TU x TU using partitioning and recombining skills			
15	Solve number and practical problems that involve large positive numbers			
16	Recognise the place value of each digit in a four-digit number			
17	Read Roman Numerals to 100 (I to C)			
18	Recall multiplication and division facts for multiplication tables up to 12 x 12			
19	Solve addition and subtraction two-step / multi-step problems in different contexts, deciding which operations and methods to implement			
FRACTIONS, DECIMALS AND PERCENTAGES				
20	Count up and down in tenths and hundredths			
21	Recognise that hundredths occur when dividing an object / value by 100 or tenths by 10			
22	Understand the effect of dividing a one or two-digit number by 10 and 100, identifying the value of digits as whole ones, parts of tenths and hundredths			
23	Compare numbers with the same number of decimal places up to 2 decimal places (including £)			
24	Recognise and show equivalent fractions (using or supported by visual learning aids)			
25	To be able to write decimal numbers (tenths / hundredths) from verbal commands			

	and round decimals with 1 decimal place to the nearest whole number.			
26	To recognise and write decimal equivalents to $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ : to know these as number facts			
27	To understand the quickest way to find a $\frac{1}{4}$ is to halve and halve again			
28	To add and subtract simple proper fractions with the same denominator and to understand the process (using or supported by visual learning aids)			
29	Solve problems by finding fractions of amounts where the answer is a whole number (using or supported by visual learning aids)			
<b>MEASUREMENT</b>				
27	Read, time on analogue and 12 and 24-hour digital clocks			
28	To convert 24-hour into 12-hour time and vice versa			
29	Solve problems involving units of time (time elapsed questions) (converting hours to minutes and vice versa / minutes to seconds and vice versa)			
30	Convert between different units of metric measurement e.g mm to cm / m to km / g to kg and vice versa			
31	To calculate the perimeter of a 2D shape using an appropriate method			
32	Measure and calculate the perimeter of a square or rectangle in cm and m using: $(l \times 2) + (b \times 2) = p$			
33	Find the area of rectilinear shapes by counting squares, extended to $l \times b = a^2$			
<b>GEOMETRY</b>				
34	Identify 2D shapes and to use the correct terminology e.g. faces, vertices, edges			
35	Identify lines of symmetry in 2D shapes presented in different orientations (using mirrors or tracing paper techniques)			
36	Complete a simple symmetric shape using 1 line of symmetry accurately			
37	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes			
38	To understand the process / concept of $\frac{1}{4}$ turn = 90 degrees (4 x 90 degrees = 360 degrees - full circle)			
39	Identify acute and obtuse angles			
40	Compare and order angles up to two right angles (straight line) by size			
41	Describe positions on a 2D grid as coordinates in the first quadrant (Along the corridor, up the stairs etc.)			
42	Describe movements between positions as translations of a given unit or vertex to the left / right and up / down			
43	Plot specified points on a first quadrant grid and draw sides to complete a polygon			
<b>STATISTICS</b>				
44	To use appropriate types of graphs to show collected data			
45	Solve comparison, sum and difference problems using information presented in: Bar charts, Pictograms, Tables and other graphs			

## MATHS

### Expectation Year 5

NUMBER AND CALCULATION		Reference		
1	To understand negative numbers in context; count forwards and backwards, including through zero			
2	Count forwards and backwards in given amounts, bridging hundreds and thousands			
3	Read, write, order and compare numbers to 1,000,000 and to understand the value of each digit			
4	Round numbers (integer and decimal) up to 1,000,000 to the nearest 10, 100, 1000, 10,000 or 100,000			
5	Add and subtract numbers mentally by partitioning and recombining (with increasingly large numbers)			
6	Add and subtract integers with more than 4 digits, including columnar addition and subtraction			
7	Multiply and divide numbers mentally, drawing upon known number facts (including related facts e.g. $4 \times 8 = 32$ , therefore $40 \times 8 = 320$ )			
8	Multiply and divide whole numbers and decimals by 10, 100 and 1000 - to understand the process of the digit shifts (place value)			
9	Multiply numbers up to 4 digits by a one or two-digit number using a formal written method of short or long multiplication.			
10	Divide numbers up to 4 digits by a one-digit number using the <i>short division method</i> and to understand remainders in contexts			
11	Identify multiples and factors, including finding factor pairs and common factors			
12	To know and use the vocabulary of prime numbers, prime factors and composite numbers			
13	Recognise prime numbers up to 100 and recall prime numbers up to 19			
14	Recognise and understand square numbers and cube numbers			
15	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.			
16	To solve multi-step problems involving all 4 operations (including combinations) and to understand the meaning of the equals sign (e.g. in simple balance equations)			
17	Read Roman Numerals to 1000 (M) and recognise years written in Roman Numerals.			
FRACTIONS, DECIMALS AND PERCENTAGES				
18	Read, write, order and solve problems involving numbers with up to three decimal places			
19	Round decimals with two decimal places to the nearest whole number and to one decimal place			
20	Identify, name and write equivalent fractions of a given fraction (including using visual learning aids)			

21	Read and write decimal numbers as fractions e.g. $0.71 = \frac{71}{100}$			
22	Relate tenths and hundredths denominators to place value knowledge			
23	Recognise the % symbol as being "number of parts per hundred" and write percentages as fractions with a denominator of 100			
24	Add and subtract fractions with the same denominator			
25	Recognise mixed numbers and improper fractions and convert from one to the other			
26	Compare and order fractions whose denominators are all multiples of the same number.			
27	Multiply proper fractions and mixed numbers by whole numbers			
28	Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{5}$ $\frac{2}{5}$ etc			
<b>MEASUREMENT</b>				
29	Read, write and convert time between analogue and 12 and 24-hour digital clocks			
30	Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.			
31	Solve problems involving units of time (time elapsed questions) (converting hours to minutes and vice versa)			
32	Convert between different units of metric measurement e.g mm to cm / m to km / g to kg / litres to mm and vice versa (to link this to multiply and divide by 10, 100 and 1000 and to understand why)			
33	Use all four operations to solve problems involving measure e.g. length, mass or money			
<b>GEOMETRY</b>				
34	Identify 2D shapes and to use the correct terminology e.g. faces, vertices, edges			
35	To distinguish between regular and irregular polygons based on equal sides and angles			
36	To identify lines of symmetry in 2D shapes and other patterns			
37	Identify 3D shapes from 2D representations and actual 3D representations, using the correct terminology e.g. faces, vertices, edges			
38	Estimate and compare acute, right-angle, obtuse and reflex angles			
39	Draw given angles and measure them in degrees.			
40	Understand angles at a point = 360 due to 4 quarter turns			
41	Understand angles on a straight line = 180 due to 2 quarter turns			
42	Measure, calculate and compare the area of squares, rectangles and composite shapes using standard units (cm <sup>2</sup> / m <sup>2</sup> )			
43	Estimate volume and capacity			
44	Measure, calculate and compare the perimeter of basic composite shapes in cm and m			
45	Identify, describe and draw the position of a shape after reflection or translation and understand the shape has not changed			
46	Identify, describe and draw the position of a shape after rotation and understand the shape has not changed			
47	Use properties of rectangles to deduce related facts and find missing lengths and angles			
<b>STATISTICS</b>				
48	Complete missing values in bar charts, including bars themselves			
49	To compare information in bar charts and answer related questions			
50	To read, compare and complete missing values in tables, including timetables			
51	Solve comparison, sum and difference problems using information presented in line graphs.			

## MATHS

### Expectation Year 6 Expected

NUMBER AND CALCULATION		Reference		
1	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit			
2	Use negative numbers in context, and calculate intervals across zero			
3	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written methods			
4	Divide numbers up to 4 digits by a two-digit whole number			
5	Use efficient written methods of columnar addition - <i>including decimals</i>			
6	Use efficient written methods of columnar subtraction - <i>including decimals</i>			
7	Identify common factors, multiples and prime numbers			
8	Identify the value of each digit to three decimal places			
9	To multiply and divide whole numbers and decimals (to three-decimal places) by 10, 100 and 1000			
10	Multiply one-digit numbers with up to two decimal places by whole numbers			
11	Generate, identify and describe linear number sequences			
12	Round any whole number <b>and solve problems which require answers to be rounded.</b>			
13	Interpret remainders as whole number remainders, fractions or by rounding depending on the context			
14	To know all multiplication tables			
15	To use multiplication tables and place value knowledge to calculate known number facts			
16	To use multiplication tables and known number facts to perform mental calculations			
17	To understand the use of bracket calculations and the order of using brackets			
18	Use estimation to approximate and check answers			
FRACTIONS, DECIMALS AND PERCENTAGES				
19	Compare, order fractions and simplify fractions, including fractions $>1$			
20	To calculate percentages of whole number quantities			
21	Recall and use equivalences of decimals, percentages and fractions			
22	To simplify fractions using common factors			
23	To know fraction and decimal equivalents ( <i>and the role division plays</i> )			
24	Add and subtract fractions with different denominators and mixed			

	numbers			
25	To convert mixed numbers into improper fractions and vice versa			
26	Multiply simple pairs of proper fractions			
27	Divide proper fractions by whole numbers			
28	Recognise operations as a way to solve calculations and problems			
<b>MEASUREMENT</b>				
29	Solve problems involving the calculation and conversion of units of measure			
30	Can read 12 hour and 24 hour time			
31	Can calculate time elapsed			
32	To use conversion graphs to aid calculation (miles to km etc.)			
<b>GEOMETRY</b>				
33	Draw 2D shapes using given dimensions and angles.			
34	To calculate the perimeters of regular polygons			
35	To calculate the area of right-angled triangles			
36	Recognise and describe the properties of 3D shapes and build them, making appropriate nets.			
37	Describe positions on a 4 quadrant grid			
38	To calculate perimeters and areas of compound shapes			
39	To calculate perimeters and areas of parallelograms and triangles			
40	Recognise that shapes with the same areas can have different perimeters and vice versa.			
41	Calculate the surface area of cubes and cuboids			
42	Calculate and compare the volume of cubes and cuboids			
43	To find unknown angles in regular polygons, triangles and quadrilaterals			
44	To find unknown angles at a point, on a straight line or are vertically opposite			
45	Illustrate and name parts of circles (radius, diameter and circumference)			
46	Draw and translate simple shapes in all four quadrants and reflect them in the axis.			
47	Predict and calculate missing coordinates			
<b>STATISTICS</b>				
48	Interpret bar charts, pie charts and line graphs			
49	Construct bar charts, pie charts and line graphs			
50	To know when data is discrete or continuous			
51	To calculate and interpret the mean as an average.			
<b>RATIO, PROPORTION AND ALGEBRA</b>				
52	Solve multi-step problems involving addition, subtraction, multiplication and division			
53	Solve problems involving ratio, proportion and percentages.			
54	Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.			
55	Express missing number problems algebraically, using simple formulae and			

	find numbers to satisfy number sentences involving unknown values			
56	Solve problems involving similar shapes where the scale factor is known or can be found.			
57	Generate and describe linear number sequences.			



## MATHS

### Expectation Year 6 Greater Depth

NUMBER AND CALCULATION		Reference		
1	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit, including decimals to 3 dp			
2	Know the order in which operations should be carried out using <b>BODMAS</b> : <b>B</b> rackets <b>O</b> f powers <b>D</b> ivision <b>M</b> ultiplication <b>A</b> ddition <b>S</b> ubtraction			
3	To understand and know the rules for addition and subtraction, multiplication and division of negative and or positive integers			
4	To round numbers from larger integer multiples to 3 dp			
5	To be able to multiply and divide decimals			
6	To calculate sequences and the nth term, including devising rules to describe and predict			
FRACTIONS, DECIMALS AND PERCENTAGES				
7	To add and subtract fractions and mixed numbers			
8	To multiply and divide fractions and to understand the process			
9	Convert fractions, decimals (3dp) and percentages			
10	To write one value as a proportion of another, including units of measure			
11	To calculate percentage increase and decrease			
12	List all possible outcomes			
13	To calculate mutually exclusive events			
GEOMETRY				
14	Calculate exterior and interior angles of polygons			
15	Identify special quadrilaterals by their properties			
16	Find the area of 2D shapes, such as trapezoids and parallelograms			
17	Calculate the circumference of a circle			
18	Calculate the area of a circle			
19	Identify and match nets and 2D representations of 3D shapes			
20	Understand and draw plans and elevations of 3D shapes			
21	Calculate volume and surface area of a cuboid			
22	Understand the rules of rotational symmetry and symmetry within 3D shapes			
23	Accurately transform 2D shapes			
24	To enlarge shapes by scale factors			
STATISTICS				
25	Draw straight line graphs			
26	Find the equation of straight line graphs			
27	To interpret scatter graphs			
28	Create and interpret frequency diagrams from continuous data			
29	Find the mode and median in a frequency table			
30	Interpret real life conversion graphs			

RATIO & PROPORTION, EQUATIONS, FORMULAE				
31	Calculate ratios from given values and values from given ratios			
32	Calculate proportions of values, including units of measure			
33	Solve simple linear equations			
34	Use trial and improvement to solve equations and other problems			
35	To expand and simplify brackets			
36	Use formulae by rearranging and treating each side the same and substituting values			
37	Understand, interpret and construct pie charts			
38	Solve algebraic problems			

