

## Woodlands Maths Milestones

9 points		Date	Date	Date
Number	Selects the correct numeral to represent 1 to 10 objects.			
	Says the number that is one more than a given number			
	Finds one more or one less from a group of up to 10 objects			
	Begins to identify own maths problems based on own interests and fascinations			
Shape Space and Measure	Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes			
	Orders two or three items by length or height.			
	Orders two items by weight or capacity			
	Measures short periods of time in simple ways			
	Orders and sequences familiar events			

10 points		Date	Date	Date
Number	Children count reliably with numbers from 1-20			
	Place numbers in order			
	Say numbers which are one more or one less than numbers to 20.			
	Using objects add and subtract 2 digit numbers and count on or back to find the answer			
	Solve problems including doubling, halving and sharing			
Shape Space and Measure	Children use everyday language to talk about size, weight, capacity, position, distance, time and money.			
	To compare quantities and objects and to solve problems.			
	To recognize and describe patterns			
	To explore characteristics of everyday objects and shapes using mathematical language to describe them			

12 points		Date	Date	Date
Number & Place Value	Count to and beyond 50, forwards and backwards beginning from 0, 1 or any number.			
	Count in multiples of 10			
	Read and write numbers to 20 in numerals			
	Read and write numbers to 5 in words			
	Begin to recognise the place value of teens numbers (tens and ones) using apparatus			
	Identify and represent numbers using object and pictorial representations including a number line (up to 20 and beyond)			
	Given a number to 30 say a number which is one more and one less.			
	Recognise and create repeating patterns with numbers, objects and shapes.			
Operatio ns	Understand what the symbols + - = do to numbers			
	Represent and use number bond and related subtraction facts within 10. (ie. 6+2=8)			
	Solve simple missing number problems in practical contexts (ie. using objects)			
	Double numbers to 10 in practical contexts (ie. using objects)			
Fractions	Understand that a fraction can describe part of a whole			
	In practical contexts find a half or quarter.			
Shape	Verbally identify a given shape- point to the circle			
	Recognise and name sphere			
Position	Recognise a half turn			
	Can create a repeating pattern			
Measure ment	Measure and begin to record:- lengths and heights, using non-standard units			
	Measure and begin to record - mass/weight, using non-standard.			
	Measure and begin to record:- capacity and volume using non-standard.			
	Know that hours are longer than minutes and minutes are longer than seconds			
	Recognise 1p and 2p coins.			
	Count up amounts of money in 1p			
Statistics	Sort a small set of objects into two simple groups <i>red/blue large/small etc</i>			
	Use cubes/blocks etc to create a simple block chart where 1 block = 1 object			
	Answer simple questions by counting one set ie. How many red cubes?			

## Woodlands Maths Milestones

<b>14 points</b>		<b>Date</b>	<b>Date</b>	<b>Date</b>
Number & Place Value	Count up to 100, forwards and backwards beginning from 0, 1 or any number.			
	Count in multiples of 2 and 10			
	Read and write numbers to 50 in numerals			
	Read and write numbers to 10 in words			
	Recognise the place value of teens numbers (tens and ones)			
	Identify and represent numbers using object and pictorial representations including a number line (up to 50 and beyond)			
	Begin to use the language of equal to, more than, less than, fewer, most and least			
	Given a number to 50 say a number which is one more and one less.			
	Identify odd and even numbers linked to counting in 2s from 0			
Operations	Record own addition and subtraction calculations using the correct symbols.			
	Know number bonds to 10 and related subtraction facts. (ie. $6 + 4 = 10$ )			
	Add and subtract a 1 digit number to a teen numbers including 0 (using objects and pictorial representations)			
	Solve one step problems that involve addition and subtraction of a one digit and teens number. (using objects and pictorial representations)			
	Solve missing number problems involving known number facts ie. $4 + \underline{\quad} = 10$			
	Recall doubles of all numbers to 5 and corresponding halves.			
	Solve one step problems that involve multiplication and division, calculating using objects or pictures.			
Fractions	Understand that a unit fraction represents one equal part of a whole.			
	Recognise, find and name a half as one of two equal parts of an object or shape.			
	Recognise, find and name a quarter as one of four equal parts of an object or shape.			
Shape	Match common 2d shapes to given names			
	Recognise and name pyramids			
Position	Recognise a quarter turn			
Measurement	Measure and begin to record:- lengths and heights, using standard units			
	Measure and begin to record - mass/weight, using standard units			
	Measure and begin to record:- capacity and volume using standard units			
	Recognise half past quarter past and quarter to			
	Recognise 5p and 10p coins.			
Statistics	Sort numbers and shapes into simple groups given the criterion (linked to number/shape knowledge)			
	<i>Colour in a pre drawn block diagram where 1 block = 1 object</i>			
	<i>Answer simple questions by counting more than one set ie. How many blues cubes, how many red cubes?</i>			

Woodlands Maths Milestones

16 points		Date	Date	Date
Number & Place Value	Count to and across 100, forwards and backwards beginning from 0, 1 or any number.			
	Count in multiples of 2,5 and 10s			
	Read and write numbers to 100 in numerals			
	Read and write numbers from 1 to 20 in words.			
	Begin to recognise the place value of numbers beyond 20 (tens and ones)			
	Identify and represent numbers using object and pictorial representations including a number line (up to 100 and beyond)			
	Use the language of equal to, more than, less than, fewer, most and least			
	Given a number (up to 100) identify one more and one less			
	Recognise and create repeating patterns with numbers, objects and shapes.			
	<i>Solve problems and practical problems involving all of the above</i>			
Operations	Read, write and interpret mathematical statements involving addition (+) subtraction (-) and (=) signs.			
	Represent and use number bonds and related subtraction facts within 20. (ie. $12 + 4 = 16$ )			
	Add and subtract one digit and two digit numbers to 20 including 0 (using objects and pictorial representations)			
	Solve one step problems that involve addition and subtraction (using objects and pictorial representations)			
	Solve missing number problems such as $7 = ? - 9$			
	Recall and use doubles of all numbers to 10 and corresponding halves.			
	Solve one step problems that involve multiplication and division, calculating using objects, pictures and arrays with the support of the teacher.			
Fractions	Recognise, find and name a half as one of two equal parts of an object, shape or quantity.			
	Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.			
	Recognise and name common 3-D shapes, including cuboids (including cubes), pyramids and spheres			
Position	Describe movement, including whole, half, quarter and three-quarter turns			
	Describe position and direction			
	Recognise and create repeating patterns with objects and shapes			
Measurement	Measure and begin to record using non-standard and then manageable standard units -lengths and heights, capacity, time and mass.			
	Compare, describe and solve practical problems for: - lengths and heights, capacity, time and mass (for example, long/short, longer/shorter, tall/short, double/half)			
	Recognise and use language relating to dates, including days of the week, weeks, months and years			
	Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening)			
	Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times			
	Recognise and know the value of different denominations of coins and notes			
	Count up small amounts of money with a combination of 1p, 2p and 10p coins			
Statistics	<i>Sort objects, numbers and shapes to a given criterion and their own</i>			
	<i>Present and interpret data in block diagrams using practical equipment</i>			
	<i>Ask and answer simple questions by counting the number of objects in each category</i>			
	<i>Ask and answer questions by comparing categorical data</i>			

Woodlands Maths Milestones

18 points		Date	Date	Date
Number and place value	The pupil can recall doubles and halves to 20 (e.g. pupil knows that double 2 is 4, double 5 is 10 and half of 18 is 9).			
	The pupil can partition a two digit number into tens and one showing an understanding of place value, though may still need to use apparatus to support them (e.g. by stating the difference in the tens and ones between 2 numbers i.e. 77 and 33 as a difference of 40 for the tens and a difference of 4 for the ones; by writing number statements such as $35 < 53$ and $42 > 36$ ).			
	The pupil can count in twos, fives and tens from 0 and use counting strategies to solve problems (e.g. count the number of chairs in a diagram when the chairs are organised in 7 rows of 5 by counting in fives).			
	The pupil can read and write numbers correctly in numerals up to 100 (e.g. can write the numbers 14 and 41 correctly).			
	Read and write numbers in words up to 20 and numerals up to 100 and beyond			
	Know which place is tens and ones in a number and use apparatus to partition			
	Say which number is larger or smaller in a pair of 2 digit numbers.			
	Find 1 more or less than any number to 100 including crossing 10s boundaries.			
	Round numbers to 30 to the nearest 10			
Addition and subtraction	The pupil can recall four of the six number bonds for 10 and reason about associated facts (e.g. $6+4=10$ , therefore $4+6=10$ )			
	The pupil can add and subtract a two-digit number and ones and a two-digit number and tens where no regrouping is required (e.g. $23 + 5$ ; $46 + 20$ ), they can demonstrate their method using concrete apparatus or pictorial representations.			
	To recognise and use the vocabulary of subtraction including take away, less than, minus, subtract and understand what this does to a number.			
	Understand that the largest number must go first in a subtraction and why.			
	Be able to add five to make the next multiple of 10. (ie. $45 + 5 = 50$ )			
	Give the inverse calculation when given a simple addition or subtraction.			
Multiplication & Division	Represent multiplication as 'lots of' using drawn method independently.			
	Understand division as sharing and represent using objects or drawing			
	With support, understand the number sentence for division.			
	Recognise the symbols for multiplication and division and what they do to numbers.			
Fractions	Understand the notation used to represent fractions (a number on the bottom and a number of the top) and what each number represents.			
	Recognise, name, write and find the notation for $\frac{1}{2}$ , $\frac{1}{4}$ and $\frac{3}{4}$ of a shape			
Shape	The pupil can recognise and name triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres from a group of shapes or from pictures of the shapes			
	Identify and describe the properties of 3-D shapes using faces			
Position & Direction	Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and rotation as a turn			
	Create a sequence or pattern using 2D shapes			
Measurement	The pupil can know the value of different coins			
	Pick out the coins needed to give an amount of money up to 50p			
	Understand the difference between length/height / capacity and mass and say what equipment you would use to measure each.			
	Develop more accuracy when measuring using standard measures introduced in year 1 (ie. measure a line with a ruler in cm)			
	Compare two measurements (of length, mass, capacity) in standard units using appropriate vocabulary (the 10cm pencil is longer than the 5cm pencil)			
	Understand and use the language hour, minute, second, week. Month, year in everyday discussions and know the number of days in a week / months in a year			
	Tell the time 'quarter past' and quarter past the hour and draw the hands on a clock face to show these times.			
Statistics	Use a simple sorting diagram to sort objects, numbers and common 2-D and 3-D shapes and everyday objects i.e. a simple table with headings			
	Complete simple pictograms, block diagrams and simple tables			

## Woodlands Maths Milestones

20 points		Date	Date	Date
Number & Place Value	Read and write numbers in words up to 50 and numerals up to 100 and beyond.			
	Understand which place is worth the most in a number.			
	Represent numbers using different representations including the number line ie. locate the position of a number on a blank number line.			
	Order a set of 2 digit numbers.			
	Find 10 more or 10 less than a multiple of 10			
	Round numbers to 50 to the nearest 10.			
	Recognise and continue sequences in 1, 2s, 5s and 10s from any number.			
	The pupil can partition two-digit numbers into different combinations of tens and ones. This may include using apparatus			
Addition & Subtraction	Mentally use bridging through ten to add or subtract.			
	Be able to find the difference between two small numbers by counting up and link this to subtraction.			
	The pupil can add 2 two-digit numbers within 100 (e.g. $48 + 35$ ) and can demonstrate their method using concrete apparatus or pictorial representations.			
	The pupil can recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20 recognising other associated additive relationships			
	The pupil can use estimation to check that their answers to a calculation are reasonable (e.g. knowing that $48 + 35$ will be less than 100).			
	The pupil can subtract mentally a two-digit number from another two-digit number when there is no regrouping required (e.g. $74 - 33$ )			
	The pupil can recognise the inverse relationships between addition and subtraction and use this to check calculations and work out missing number problems (e.g. $\Delta - 14 = 28$ ).			
Multiplication & Division	Represent multiplication as an array			
	Understand division as grouping and represent using a drawn method or numberline.			
	Know halves of multiples of 10 with an even 10s digit. (60, 40 etc)			
	Record mathematical statements using the correct symbols to match calculations undertaken.			
	The pupil can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables to solve simple problems, demonstrating an understanding of commutativity as necessary (e.g. knowing they can make 7 groups of 5 from 35 blocks and writing $35 \div 5 = 7$ ).			
Fractions	Identify the numerator and denominator in a fraction			
	<i>Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be</i>			
	The pupil can identify $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{2}{4}$ , $\frac{3}{4}$ and knows that all parts must be equal parts			
Shape	The pupil can name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry			
Position & Direction	Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns			
	Create a sequence or pattern using 3D shapes			
Measurement	Compare and order sets of measurements (length, mass, capacity, temperature) for example, putting a set of lengths in cm in order from longest to shortest			
	Count up a combination of coins up and including £1			
	Put a list of time intervals in order (ie. second, minute, hour)			
	Know the number of hours in a day and minutes in an hour			
	The pupil can use different coins to make the same amount (e.g. pupil uses coins to make 50p in different ways; pupil can work out how many £2 coins are needed to exchange for a £20 note).			
	The pupil can read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given			
	The pupil can read the time on the clock to the nearest 15 minutes.			
Statistics	sort objects, numbers and 2-D and 3-D shapes and objects into two sets and explain why			
	Can record information in a tally chart			
	Answer questions by comparing the data collected in different categories <i>which is the most... the least...how many more...</i>			

Green represents working at the National Standard of Expected and can continue into term 5. Aspects of orange below (National Standard of working at greater depth within the expected standard) can also be worked on in term 5.

## Woodlands Maths Milestones

22 points		Date	Date	Date
Number & Place Value	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward			
	Read and write numbers to at least 100 in numerals and in words			
	Recognise the place value of each digit in a two-digit number (tens, ones)			
	Identify, represent and estimate numbers using different representations, including the number line (ie estimate where 65 would be on a number line 1-100)			
	Partition numbers in different ways (e.g. $23 = 20 + 3$ and $23 = 10 + 13$ )			
	Compare and order numbers from 0 up to 100; use $<$ , $>$ and $=$ signs			
	Round numbers to at least 100 to the nearest 10			
	Describe and extend simple sequences involving counting on or back in different steps			
	The pupil can use reasoning about numbers and relationships to solve more complex problems and explain their thinking			
	The pupil can solve unfamiliar word problems that involve more than one step			
Addition & Subtraction	Recall & use addition and subtraction facts to 20 fluently, derive and use related facts up to 100			
	Begin to use written addition and subtraction (ref. calculations policy)			
Multiplication & Division	Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot			
	Derive and use doubles and halves of simple two-digit numbers without bridging boundaries			
	The pupil can use multiplication facts for 2,5 and 10 and make deductions outside known multiplication facts (e.g. a pupil knows that multiples of 5 have one digit of 0 or 5 and uses this to reason that $18 \times 5$ cannot be 92 as it is not a multiple of 5).			
	The pupil can use division facts to make deductions outside known division facts for 2,5 and 10 and make deductions outside known division facts			
Fractions	Understand that a fraction can describe part of a set			
	Find equivalent fractions of $\frac{1}{2}$			
	Count on and back in steps of $\frac{1}{2}$			
Shape	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line			
	Identify and describe the properties of 3-D shapes, the number of edges, vertices and faces			
	The pupil can describe similarities and differences of shape properties of 2d and 3d shapes, using their properties			
Position & Direction	Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)			
Measurement	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ( $^{\circ}\text{C}$ ); capacity and volume (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels			
	Compare and order lengths, mass, volume/capacity and record the results using $>$ , $<$ and $=$			
	Compare and sequence intervals of time			
	The pupil can read the time on the clock to the nearest 5 minutes.			
	The pupil can read scales where not all numbers on the scale are given and estimate points in between.			
Statistics	Compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects			
	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables			
	Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity including knowing totals and comparing categorical data			

## Woodlands Maths Milestones

24 points		Date	Date	Date
Number & Place Value	Count in steps of 50 and 100 from 0			
	Read and write multiples of 100 in words and numerals			
	Say which digit is in which place in 3 digit numbers.			
	Say which number is larger or smaller in a pair of 3 digit numbers.			
	Say which number is larger or smaller in a pair of numbers with one decimal place.			
	Find 1, 10 or 100 more or less than any numbers up to 100			
	Identify the multiples of 10 or multiples of 100 which a number lies between (ie. 560 is between 500 and 600)			
	Can explain what happens to a number when it is multiplied by 10 (digits move)			
	Know the roman numeral for 1 and 5			
Addition & Subtraction	Add 3 or 4 one digit numbers mentally			
	Add and subtract numbers mentally, including: - a three-digit number and ones			
	Use partitioning to add 2 two digit numbers mentally without bridging tens or 100			
	Partition the smallest number when subtracting mentally without bridging 10 or 100 (i.e. 67 – 22 subtract 20 then subtract 2)			
	Can find the difference between two 2 digit numbers.			
	Recall addition and subtraction facts for multiples of 10 which make 100			
	Use a partitioning method to add 2 and 3 digit numbers			
	Use rounding to estimate the answer involving 2 digit numbers.			
Multiplication & Division	Recall the 3 x table and related division facts			
	Understand division as sharing and grouping and use each appropriately			
	Understand how multiplication and division statements can be represented using arrays			
	Derive doubles of all multiples of 10 to 100 and corresponding halves			
	Multiply or divide a 2 digit number by a 1 digit number using known x facts mentally (2,3,5,10 times tables ie. 21 x 5)			
Multiply or divide a 2 digit number by a 1 digit number using a drawn written method				
Fractions	Recognise thirds and fifths (ie. in a pictorial form)			
	Find $\frac{1}{2}$ , $\frac{1}{4}$ and $\frac{3}{4}$ of sets of objects or numbers			
	Use pictorial representations to compare and order fractions using small denominators they are familiar with.			
Shape	Draw a 2D shape to match a given name			
	Can recognise and count the angles in a shape			
	Identify horizontal and vertical lines			
Position & Direction	Identify right angles in objects and the world around them.			
	Locate a given square in a grid labelled with letters and numbers. (put your finger in A3)			
Measurement	Estimate and measure temperature to the nearest 10 degrees with a thermometer			
	Understand perimeter is a measure of distance around the boundary of a shape and be able to identify what the perimeter of a shape is.			
	Tell the time to the nearest 5 minutes on the 12 hour clock using am / pm accurately			
	Understand the 'hour' numbers on the 24 hour clock and match up to am/pm on the 12hr clock.			
	Know the number of days in a year and leap year.			
	Compare events and order them based on estimates of their duration.			
	Count up amounts of money over £1 and record using a decimal point			
Give change from £1 by counting up or down in practical situations.				
Statistics	Use a venn diagram with practical objects to sort sort objects, numbers and common 2-D and 3-D shapes and everyday objects			
	Solve one step problems about pictograms and tables with simple scaling. How many more?			

## Woodlands Maths Milestones

26 points		Date	Date	Date
Number & Place Value	Recognise the value of digits in one decimal place			
	Read and write multiples of 100s and 10s up to 1000 in words and numerals.			
	Partition numbers into 100s, tens and ones.			
	Order a set of 3 digit numbers where the largest places are all different digits.			
	Order a set of numbers with 1 decimal place			
	Find 1, 10 or 100 more or less than a multiple of 10 up to 1000			
	Round a 3 digit number to the nearest 100.			
	Can multiple any 1 or 2 digit number by 10			
	Know roman numerals for 1-12			
	Describe and extend number sequences involving counting on or back in different steps			
Addition & Subtraction	Use partitioning to add 2 two digit numbers mentally including bridging 10 or 100.			
	Partition the smallest number when subtracting mentally including bridging 10 or 100 (ie. 61 – 22 subtract 20 then subtract 2)			
	Can find the difference between 2 close together 3 digit numbers			
	Add and subtract numbers mentally, including: - a three-digit number and tens			
	Derive addition/ subtraction fact for multiples of 5 which make 100			
	Use columnar method to add and subtract 2 digit numbers, including estimation			
Multiplication & Division	Recall the 4x table and related division facts			
	Understand that division is the inverse of multiplication and vice versa			
	Derive doubles of all 2 digit numbers and their corresponding halves			
	Multiply or divide a 2 digit number by a 1 digit number using known x facts using an informal written method (ie. partitioning)			
	Multiply or divide a 2 digit number by a 1 digit number using known x facts mentally (2,3,4,5,10 times tables ie. 21 x 5)			
	Use rounding to help estimate answers to x and divide questions.			
Fractions	Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10			
	Find tenths, thirds and fifths of sets of objects or numbers.			
	Represent equivalent fractions to $\frac{1}{2}$ , $\frac{1}{4}$ and $\frac{3}{4}$			
	Say which fraction from 2 with the same denominator is larger			
	Add 2 fractions with the same denominator			
	Count on and back in steps of $\frac{1}{4}$			
Shape	Identify pairs of perpendicular lines			
Position & Direction	Identify right angles in a shape.			
	Follow instructions to place an object or drawing in different positions on a grid labelled with letters and numbers. (put a red cube in A4 and a blue cube in A7)			
Measurement	Compare a wider range of measurements including mm			
	Find the perimeter of a shape using non standard measures ie. how many blocks it is.			
	Begin to tell the time to the nearest minute for time 'past' the hour.			
	Tell the time on the 24 hour clock to the nearest 5 minutes.			
	Know the number of seconds in a minute.			
	Use a timer or clock to 'time' the duration of an event to the nearest minute.			
	Record/compare time in terms of minutes and hours			
	Count up amounts of money over £1 where 0 is a place holder and record correctly using a decimal point. (£1.09, £1.90)			
Find change over £1 in practical situations.				
Statistics	Use a venn diagram( written) to sort objects, numbers and common 2-D and 3-D shapes and everyday objects			
	Present data in bar charts.			
	Solve one step problems involving bar charts with simple scaling and pictograms counting in 2s.			

## Woodlands Maths Milestones

<b>28 points</b>		Date	Date	Date
Number & Place Value	Read and write numbers up to 1000 in numerals and in words			
	Identify, represent and estimate numbers using different representations (including the number line)			
	Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)			
	Identify the value of each digit to one decimal place			
	Partition numbers in different ways (e.g. $146 = 100 + 40 + 6$ and $146 = 130 + 16$ )			
	Compare and order numbers up to 1000			
	Compare and order numbers with one decimal place			
	Round numbers to at least 1000 to the nearest 10 or 100			
	Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer			
Addition & Subtraction	Choose the correct method to subtract			
	Understand number bonds to 100 (multiples of 5 and 10)			
	Derive and use addition and subtraction facts for multiples of 100 totalling 1000			
	Add and subtract numbers mentally, including: - a three-digit number and ones; - a three-digit number and tens; - a three-digit number and hundreds			
Multiplication & Division	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction including estimation and inverse to check.			
	Choose an appropriate strategy to solve a calculation based upon the numbers involved			
	Understand that division is the inverse of multiplication and vice versa			
	Recall and use multiplication and division facts for the 3, 4, 8, 50 and 100			
	Derive and use doubles of all numbers to 100 and corresponding halves			
	Derive and use doubles of all multiples of 50 to 500			
	Use mental or written method (ref. calculations policy)			
Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy				
Fractions	Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10			
	Recognise, find, use and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators			
	Recognise and show, using diagrams, equivalent fractions with small denominators			
	Compare and order unit fractions, and fractions with the same denominators (including on a number line)			
	Count on and back in steps of $\frac{1}{2}$ , $\frac{1}{4}$ and $\frac{1}{3}$			
Shape	Identify whether angles are greater than or less than a right angle			
	Identify horizontal and vertical lines and pairs of perpendicular and parallel lines			
Position & Direction	Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn;			
	Describe positions on a square grid labelled with letters and numbers			
Measurement	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)			
	Continue to estimate and measure temperature to the nearest degree (°C) using thermometers			
	Measure the perimeter of simple 2-D shapes			
	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks			
	Estimate/read time with increasing accuracy to the nearest minute			
	Continue to recognise and use the symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds/pence			
Statistics	Use sorting diagrams including a Carroll diagram to compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects			
	Interpret and present data using bar charts, pictograms and tables.			
	Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables			

## Woodlands Maths Milestones

30 points		Date	Date	Date
Number & Place Value	Understand that negative numbers go before zero.			
	Give the value of each digit in a four digit number (thou,hund,ten,ones)			
	Say how many of each place there are in a number with 2 decimal places.			
	Read and write some four digit numbers.			
	Read and write numbers with 2 decimal places			
	Partition four digit numbers			
	Identify or represent a given number on a number line (ie. 2500 on a number line in 1000s)			
	Identify or represent a given number on a number line in tenths			
	Say which number is largest given a pair of numbers beyond 1000			
	Say which number is largest given a pair of numbers with 2 dp with different tenths.			
	Find 1, 10, 100 or 1000 more or less than a given number with a 4 digit number with no crossing boundaries.			
	Round a four digit numbers to the nearest 1000			
	Multiply and divide a one or two digit number by 10 and explain what effect.			
	Continue number sequences involving counting on or back in different steps, including sequences with multiplication and division steps (that are known) where a rule is given.			
	Know the Roman Numeral symbols for 50 and 100 (L,C			
Addition & Subtraction	Find a small difference between two 3 or 4 digit numbers by counting up (not crossing 100 boundaries)			
	Mentally add combinations of 2 digit numbers including three 2 digit numbers.			
	<b>Recall</b> pairs of multiples of 5 which make 100 and related subtraction facts			
	Add and subtract four digit using columnar(no carrying or exchanging)			
	Be able to identify when a problem needs more than one step to solve it.			
Multiplication & Division	Be able to swap round a multiplication questions to make it easier (ie. by changing to a known table) when calculating mentally.			
	Count multiples of 6			
	Quickly recall all multiplication facts to 10 x 10			
	Use partitioning to double numbers beyond 100 and corresponding halves.			
	Use the grid method to multiply 2 and 3 digit numbers by a 1 digit number.			
	Begin to use the 'bus stop' method to divide a 2 digit by a 1 digit number without remainders.			
Fractions	Be able to recognise tenths and hundredths as a fraction out of 100			
	Count on and back in steps of 1/10			
	Be able to say which unit fraction is larger than another ie. 1/5 is larger than 1/10 linked to an understanding of what the denominator means.			
	Recognise and show using diagrams families of fraction equivalent to 1/2			
	Can match a tenths fraction to its decimal equivalent ie. 4/10 = 0.4			
Shape	Can identify four sided shapes as quadrilaterals			
	Can identify one line of symmetry in any given 2d shape in any orientation			
	Can complete a simple pattern which has a line of symmetry			
	Continue to identify horizontal and vertical lines and pairs of perpendicular and parallel lines in known shapes			
	Name acute and obtuse angles			
Position & Direction	Locate the position of a given coordinate in the first quadrant (put your finger in 3,5)			
	Follow instructions to plot the corners of a shape on a grid labelled with letters and numbers and name the shape created.			
	Correctly move objects left/right/ up /down on a grid			
Measurement	Estimate and compare accurately using all units of measure previously taught to the nearest 1.			
	Order a set of temperatures above 0 degrees.			
	Read digital time accurately on the 12 hour clock			
	Write larger amounts of money using decimal notation where 0 is a place holder (ie. £12.04)			
	Convert hours to minutes			
	Measure the perimeter of any 2D shape in cm.			
	Understand that area is the space covered by a shape.			
	Convert units of measure using 'round' amounts ie. 5m = 500cm 5kg = 5000g			
Statistics	Use a Carroll diagram with 2 criteria to classify objects and shape based on properties and size			
	Create a bar chart to present discrete data including drawing own axis and choosing scale.			

Woodlands Maths Milestones

32 points		Date	Date	Date	
Number & Place Value	Know that negative numbers go from right to left on a number line.				
	Give the value each digit in a number to two dp (thousands ,hundreds, tens, ones, tenths and hundredths.				
	Read and write numbers to 10,000				
	Partition decimal numbers into tenths and hundredths				
	Identify or represent a given number on a number in including hundredths s (ie. 1.55 on a number line marked in 10ths)				
	Identify or represent a given number on a number line (ie.2455 on a number line marked in 100s or 10s)				
	Order a set of 4 digit numbers				
	Say which number is largest, given a pair of numbers with 2 dp with the same number of tenths.				
	Find 1, 10, 100 or 1000 more or less than a given number with a 4 digit number including crossing boundaries.				
	Round a four digit number to the nearest 10 or 100				
	Divide a one or two digit number by 100 and explain what effect.				
	Describe number sequences involving counting on or back in different steps, including sequences with multiplication and division steps (that are known).				
	Addition & Subtraction	Use near doubles including decimals when adding ie. (150+150)			
		Mentally add a pair of 3 digit numbers.			
Derive pairs of decimal numbers to 1dp which make 1					
Add and subtract four digits involving carrying/exchanging using columnar method.					
Able to check answer using a estimation method (using higher numbers)					
Can solve 2 steps problems with guidance to identify the operations required.					
Multiplication & Division	Recognise factor pairs that match a multiplication answer (ie. 5 x __ = 30)				
	Quickly recall division and multiplication facts up to 12 x 12				
	Use partitioning to double numbers beyond 1000 and corresponding halves.				
	Begin to use formal written multiplication to multiply by a single digit. (without grid)				
	Use the bus stop method to divide a 2 or 3 digit by a 1 digit number without remainders.				
Fractions	Know how many 100 <sup>th</sup> in 1 tenth.				
	Count on and back in steps of 1/5 and 1/3				
	Be able to order known fractions from previous years on a number line (1/2 ¼ ⅓ 1/5 1/10 etc)				
	Recognise and show using diagrams families of fraction equivalent to ¼ and ⅓				
	Can match a hundredths fraction to its decimal equivalent ie. 55/100 = 0.55				
Shape	Can identify a given quadrilateral or triangle				
	Can I identify more than one line of symmetry in a given shape.				
	Complete a shape with a given vertical or horizontal line of symmetry.				
	Continue to identify horizontal and vertical lines and pairs of perpendicular and parallel lines in known shapes				
	Identify acute and obtuse angles in a given shape.				
Position & Direction	Plot specified points as coordinates in the first quadrant and join them to make a shape.				
	Identify which direction a position has been translated (left, right, up down) on a grid.				
Measurement	Estimate and measure all units of measure previously taught including recording as decimals.				
	Read digital time accurately on the 24 hour clock				
	Convert minutes to seconds				
	Recognise and use knowledge of opposite sides when measuring the perimeter of a rectangle (ie. knowing they only need to measure each opposite side once)				
	Convert units of measure including '1/2' measures (ie. 450cm = 4 ½ m 5 ½ kg = 5500g				
	Estimate the area of an shape using non-standard measures (how many cubes ?)				
	Write larger amounts of money using decimal notation where 0 is a place holder (ie. £102.04)				
	Know that there are 100p pennies in £1				
Statistics	Interpret simple line graph stories ie. When the bath was full/empty etc.				
	Draw a simple line graph to show the passing of time.				

## Woodlands Maths Milestones

<b>34 points</b>		Date	Date	Date
Number & Place Value	Count backwards through zero to include negative numbers			
	Count up and down in hundredths			
	Read and write numbers to at least 10 000			
	Read and write numbers with up to two decimal places			
	Recognise the place value of each digit in a four-digit number			
	Identify the value of each digit to two decimal places			
	Order and compare numbers beyond 1000			
	Order and compare numbers with the same number of decimal places up to two decimal places			
	Find 0.1, 1, 10, 100 or 1000 more or less than a given number			
	Round any number to the nearest 10, 100 or 1000			
	Round decimals (one decimal place) to the nearest whole number			
	Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer			
	Read Roman numerals to 100 and know that over time, the numeral system changed to include the concept of zero and place value			
Addition & Subtraction	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)			
	Select a mental strategy appropriate for the numbers involved in the calculation			
	Recall and use +/- facts for multiples of 100 totalling 1000			
	Derive and use addition and subtraction facts for 1 and 10 (with decimal numbers to one dp)			
	Add and subtract mentally combinations of two and three digit numbers and decimals to 1dp			
	Add and subtract numbers with up to 4 digits and decimals using the formal written method.			
	Solve addition and subtraction 2-step problems, deciding which operations and methods to use			
Multiplication & Division	Recognise and use factor pairs and commutativity in mental calculations			
	Recall multiplication and division facts for multiplication tables up to $12 \times 12$			
	Use partitioning to double or halve any number, including decimals to one decimal place			
	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout			
	Divide numbers up to 3 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context			
Fractions	Recognise, find and write fractions of a discrete set of objects including those with a range of numerators and denominators			
	Recognise hundredths arise when dividing an object by one hundred and dividing tenths by ten			
	Order unit fractions and fractions with the same denominators (including on a number line)			
	Recognise and show families of common equivalent fractions ( $\frac{1}{2}$ $\frac{2}{4}$ $\frac{1}{3}$ $\frac{2}{6}$ $\frac{1}{5}$ $\frac{2}{10}$ )			
	Recognise and write decimal equivalents of any number of tenths or hundredths			
	Add and subtract fractions with different denominators			
Shape	Compare and classify geometric shapes, including quadrilaterals and triangles.			
	Identify lines of symmetry in 2-D shapes presented in different orientations			
	Complete a simple symmetric figure with respect to a specific line of symmetry			
	Continue to identify horizontal and vertical lines and pairs of perpendicular and parallel lines			
	Identify acute and obtuse angles and compare and order angles up to 180 by size			
Position & Direction	Describe positions on a 2-D grid as coordinates in the first quadrant			
	Plot specified points and draw sides to complete a given polygon (when given coordinates)			
	Describe movements between positions as translations of a given unit to the left/right & up/down			
Measurement	Estimate, compare and calculate different measures, including money in pounds and pence			
	Order temperatures including those below 0°C			
	Measure & calculate the perimeter of a rectilinear figure (including squares) in cm & m			
	Find the area of rectilinear shapes			
	Convert between different units of measure [e.g. kilometre to metre; hour to minute]			
	Read, write and convert time between analogue and digital 12- and 24-hour clocks			
Recognise that one hundred 1p coins equal £1 and that each coin is one hundredth of £1				
Statistics	Use a variety of sorting diagrams to compare and classify numbers and geometric shapes based on their properties and sizes			
	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts, time graphs ie. At what time was the bath full.			

## Woodlands Maths Milestones

<b>36 points</b>		Date	Date	Date
Number & Place Value	Count forwards or back in steps of 10,000			
	Count forwards and backwards in 10ths and 100ths from any number.			
	Read, write, order and compare numbers to 100,000 and determine the value of each digit.			
	Name each place and say how many is in each in a number with 3dp.			
	Find 1, 10, 100, 100 and other powers of 10 more or less than a given number from the above number			
	Round the numbers above to the nearest 10, 100 1000, or 10 000			
	Multiply and divide whole numbers by 10 and 100			
	Describe and extend number sequences using whole and decimal numbers (incl. $\times \div$ )			
	Say which is larger between 2 negative numbers.			
	Know the roman numerals for 500 and 1000			
Addition & Subtraction	Recall pairs of decimals to 1dp which make 1			
	Mentally add or subtract a multiple of 10, 100 or 1000 to a 5 digit number			
	Add and subtract 5 digit numbers using columnar method.			
	Add and subtract decimals to 2dp using columnar method			
	Use the inverse operation to check answers.			
Multiplication & Division	Know what a factor and a multiple is.			
	Know that a prime number has only two factors.			
	Derive square numbers and use notation			
	Use partitioning to double or halve any whole number covered in 'place value section'			
	Use known facts to multiply a single digit by a two digit number mentally.			
	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes			
	Use formal method to multiply 4 digit numbers by a 1 digit number			
Divide a number up to 4 digits using the formal 'bus stop' method involving remainders.				
Fractions	Represent mixed numbers and improper fractions as drawings			
	Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$ )			
	Compare two fractions with denominators which are multiples of the same number			
	Find equivalent to common non unit fractions ie. 5 <sup>th</sup> 10 <sup>th</sup> s			
	Know that 1000 <sup>th</sup> s are fraction out of 1000			
	Add and subtract fractions with denominators which are the same (without drawing)			
	Be able to say two fractions with the same denominator which = 1			
	Recognise the % symbol and understand it means 'number of parts per hundred'			
Know decimal equivalents to $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$				
Shape	Understand the terms regular and irregular			
	Know that opposite sides of a rectangle are parallel and equal.			
	Name a 3D shape from a 2D drawing of it.			
	Can name acute, obtuse and reflex angles by estimating.			
	Draw a right angle and measure with a protractor.			
	Recognise that a whole turn is 360° (angles at a point)			
Describe the properties of different types of triangle.				
Position Direction	Locate a position on the first quadrant of a four quadrant of coordinate grid. (point to 3,5)			
	Describe what happens when a shape is translated or reflected			
Measurement	Use the correct standard units when measuring length and mass			
	Understand the difference between liquid volume and solid volume			
	Continue to order temperatures including those below 0°			
	Using knowledge of multiplying and dividing by 10 to convert between cm and mm			
	Name some imperial units of measure			
	Calculate the perimeter of compound shapes where all sides are given.			
	Understand that area is measured in metre or centimetres squared.			
	Solve simple problems involving converting between time			
Use the correct standard units when measuring length and mass				
Statistics	Create own carroll diagram to sort any given data.			
	Complete, read and interpret data in a variety of tables			
	Calculate and interpret the mode.			

## Woodlands Maths Milestones

<b>38 points</b>		Date	Date	Date
Number & Place Value	Count forwards or back in steps of 100,000			
	Count forwards and back in steps of 0.2 or 0.02			
	Read, write, order and compare 5 digit numbers.			
	Say the value of digits in a number with 3dp and say which one is larger than another in a pair.			
	Find 1, 10, 100, 100 and other powers of 10 more or less than a given number			
	Round the numbers above to the nearest 10, 100 1000, 10,000 or 100,000			
	Round decimals with 2dp to the nearest whole number.			
	Multiply and divide decimals by 10 and 100			
	Interpret negative numbers in the context of temperature (ie. say which temp is colder)			
	Read roman numerals to 1000			
Addition & Subtraction	Recall pairs of decimals to 1dp which make 10			
	Derive and use pairs of decimals to 2dp which make 1			
	Mentally add or subtract a multiple of 10, 100 or 1000 to a 6 digit number			
	Add and subtract 6 digit numbers or 3+ numbers using columnar method.			
	Add and subtract decimals to 2dp using columnar method.			
Multiplication & Division	Round numbers to help with estimating an answer (up to 6 digits)			
	Be able to find at least one factor pair for a given number.			
	Recall prime numbers up to 19			
	Recall square numbers to 144			
	Use partitioning to double or halve any whole number covered in 'place value section'			
	Use known facts to divide a 2 digit number by a single digit number mentally.			
	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes			
Fractions	Multiply a 3 or 4 digit number by a 2 digit number.			
	Divide a number up to 4 digits using the formal 'bus stop' method where the number has 0s.			
	Convert between mixed numbers and improper fractions using drawings.			
	Count on and back in mixed number steps such as $1\frac{1}{2}$ with drawings to support understanding			
	Order a set of fractions with denominators which are multiples of the same number.			
	Find equivalents to any non unit fractions			
	Know how many 10 <sup>th</sup> and 100ths there are in a 1000 <sup>th</sup>			
	Add and subtract fractions which do not have the same denominator			
Shape	Find fractions with denominators which are multiples of the same number which = 1			
	Write a % as a fraction out of 100 ie. 35% = 35/100			
	Know percentage equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{2}{5}, \frac{4}{5}$			
	Say whether a shape is regular or irregular.			
	Be able to give a missing opposite side of a rectangle.			
	Identify nets of cuboids and cubes			
	Can estimate, measure and draw a given angle to the nearest 10 degrees			
Position & Direction	Recognise that angles on a straight line add up to 180°			
	Describe the properties of different types of quadrilateral			
	Draw a given point on the first quadrant of a four quadrant of coordinate grid. (point to 3,5)			
Measurement	Reflect a shape on a coordinate grid in a mirror line parallel of the axis			
	Translate a shape in the first quadrant.			
	Read scales or other measuring equipment using standard measures for length and mass			
	Estimate the capacity of a container using knowledge of ml and litres.			
	Continue to order temperatures including those below 0°C			
	Use knowledge of multiplying and dividing by 100 to convert between m and cm			
	Calculate the perimeter of compound shapes by finding 1 missing side.			
Statistics	Calculate the area of a rectangle and use cm and m squared to record this.			
	Match comparable imperial and metric units of measure (ie. km and miles)			
	Convert times in different units into the same unit so they can solve a problem			
Statistics	Create and interpret 3 way Venn diagrams.			
	Calculate and interpret the range.			
	Read and understand time tables for different purposes ie. Trains, appointments etc.			

## Woodlands Maths Milestones

40 points		Date	Date	Date
Number & Place Value	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000			
	Count forwards and backwards in decimal steps			
	Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit			
	Read, write, order and compare numbers with up to 3 decimal places			
	Identify the value of each digit to three decimal places			
	Identify represent and estimate numbers using the number line			
	Find 0.01, 0.1, 1, 10, 100, 1000 and other powers of 10 more or less than a given number			
	Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000			
	Round decimals with two decimal places to the nearest whole number and to one decimal place			
	Multiply/divide whole numbers and decimals by 10, 100 and 1000			
	Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero			
	Describe and extend number sequences including those with multiplication/division steps and where the step size is a decimal			
	Read Roman numerals to 1000 (M); recognise years written as such			
Addition & Subtraction	Choose an appropriate strategy to solve a calculation based upon the numbers involved			
	Select a mental strategy appropriate for the numbers involved in the calculation			
	Recall and use addition and subtraction facts for 1 and 10			
	Derive and use addition and subtraction facts for 1			
	Add and subtract numbers mentally with increasingly large numbers and decimals to two d.p			
	Add and subtract whole numbers with more than 4 digits and decimals with two decimal places			
Multiplication & Division	Use rounding to check answers to calculations and determine, in the context of a problem,			
	Choose an appropriate strategy to solve a calculation based upon the numbers involved			
	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers			
	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers			
	Establish whether a number up to 100 is prime and recall prime numbers up to 19			
	Recognise and use square ( <sup>2</sup> ) and cube ( <sup>3</sup> ) numbers, and notation			
	Use partitioning to double or halve any number, including decimals to two decimal places			
	Multiply and divide numbers mentally drawing upon known facts			
	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes			
	Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers			
Fractions	Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context			
	Recognise mixed numbers and improper fractions and convert from one form to the other			
	Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$ )			
	Count on and back in mixed number steps such as $1\frac{1}{2}$			
	Compare and order fractions whose denominators are all multiples of the same number			
	Identify, name and write equivalent fractions of a given fraction, represented visually,			
	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents			
	Add and subtract fractions with denominators that are the same and that are multiples of the same number (using diagrams)			
	Write statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ )			
	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams			
	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			
	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 fractions with a denominator of a multiple of 10 or 25			

## Woodlands Maths Milestones

Shape	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles			
	Use the properties of rectangles to deduce related facts and find missing lengths and angles			
	Identify 3-D shapes from 2-D representations			
	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles			
	Draw given angles, and measure them in degrees ( $^{\circ}$ )			
	Identify: angles at a point and one whole turn (total $360^{\circ}$ ) - angles at a point on a straight line and half a turn (total $180^{\circ}$ ) - other multiples of $90^{\circ}$			
Position & Direction	Describe positions on the first quadrant of a coordinate grid			
	Plot specified points and complete shapes			
	Identify, describe (using coordinates) and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed			
Measurement	Use, read and write standard units of length and mass			
	Estimate (and calculate) volume ((e.g., using $1\text{ cm}^3$ blocks to build cuboids (including cubes)) and capacity (e.g. using water)			
	Understand the difference between liquid volume and solid volume			
	Continue to order temperatures including those below $0^{\circ}\text{C}$			
	Use knowledge of multiplying and dividing by 1000 to convert between km and m, g and kg, l and ml			
	Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints			
	Measure/calculate the perimeter of composite rectilinear shapes			
	Calculate and compare the area of rectangle, use standard units square centimetres ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ ) and estimate the area of irregular shapes			
	Solve problems involving converting between units of time (using a wider range of conversions ie. years into days.)			
Statistics	Complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers and shapes)			
	Complete, read and interpret information in tables and timetables			
	Calculate and interpret the mode, median and range			

Woodlands Maths Milestones

42 points		Date	Date	Date
Number & Place Value	Count in steps of integers, decimals, powers of 10 related to number covered in this point			
	Read, write, numbers up to 1 000 000			
	Identify the value of each digit to three decimal places			
	Identify and represent numbers on a number line where only certain divisions are marked (ie. nearest 10 000 100 000 1 000 000)			
	Choose the most appropriate place value when rounding to estimate with whole numbers			
	Round any number up to 1,000 000 to the nearest 10, 100, 1000, 10 000 , 100,000 and 1,000,000			
	Round decimals with three decimal places to the nearest whole number.			
	Use the inverse to calculate missing number problems.			
	Understand that the calculation in a bracket needs to be done first			
	Order and compare negative number and decimals with the same number of dp.			
Addition & Subtraction	Derive addition and subtraction facts for 1 with decimals to one decimal place			
	Find 1, 10 and powers of 10 more/less than a given number (from the numbers covered in this point)			
	Use formal addition and subtraction methods with numbers up to 3dp			
	Solve multi-step problems in contexts using addition and subtraction.			
Multiplication & Division	Know and use simple divisibility rules to test if a number is prime			
	Identify common factors and multiples			
	Use partitioning to double and half any number.			
	Multiply and divide numbers by 10, 100 and 1000 giving answers up to one decimal place.			
	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication (ie. 385 x 22)			
	Multiply a one digit numbers with one decimal place by a whole number.			
	Divide any 4 digit number by a 1 digit number using short division.			
	Be able to display a remainder as a fraction (quotient)			
Fractions	Be able to simplify one fraction by finding common factors.			
	Be able to find a common denominators and equivalent fractions.			
	Add and subtract 2 proper fractions with the same and different denominators.			
	Can convert integers into fractions ie. 2 = 2/1			
	Find multiples of 5% of a number.			
Algebra	Use letters/symbols to represent numbers in a formula			
	To be able to find 2 possible unknown in a simple formula			
Ratio	Understand how to scale up and down in the same proportions.			
	Solve problems using relative sizes.			
Shape	Draw squares and rectangles accurately by constructing right angles.			
	Understand what the circumference, radius and diameter of a circle is			
	Make an accurate net for a cube and cuboid using measuring tools.			
	Recognise and find missing angles when they meet at a point or on a straight line			
	Find missing angles in triangles, including isosceles and right angle.			
Position and Direction	Be able to draw and label a pair of axis in all four quadrants			
	Draw and label rectangles (including squares, parallelograms in the first quadrant following coordinate instructions.			
	Reflect simple shapes			
	Predict the coordinates of a simple shape when it has been translated in the first quadrant.			
Measurement	Convert between standard units of length, mass, volume and time using decimal notation			
	Calculate both the area and perimeter of the same shape. (rectangles and rectilinear shapes)			
	Say whether the temperature has risen or dropped between two negative temperatures.			
Statistics	Read from a simple pie chart and compare the data displayed			
	Construct and interpret a line graph with confidence.			

## Woodlands Maths Milestones

<b>44 points</b>		Date	Date	Date
Number & Place Value	Determine the value of each digit up to 10 000 000			
	Identify and represent numbers on a number line where only 2 divisions are given including decimals, negative numbers and 8 digit numbers.			
	Order and compare decimals with a different number of dp.			
	Find 0.001, 0.01, 0.1 1, 10 and powers of 10 more/less than a given number (from the numbers covered in this point)			
	Round numbers up to 10,000,000 to the nearest 10, 100, 1,000, 10,000, 100,000 and 1,000,000			
	Round decimals with three decimal places to the nearest whole number or one decimal places			
	Work backwards using inverse operations to find a missing number.			
	Calculate the difference between 2 negative numbers including non-integers ie. -1.5 to -.3.5			
Addition & Subtraction	Recall and use addition and subtraction facts for 1 (with decimals to two decimal places)			
	Use formal addition and subtraction methods with 2 or more numbers with different places ie. decimal + whole number with 4 places.			
	Solve multi-step problems in contexts using addition and subtraction.			
Multiplication & Division	Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy			
	Multiply and divide numbers by 10, 100 and 1000 giving answers up to two decimal places.			
	Choose an appropriate strategy (recall a known fact, calculate mentally, written method etc)			
	Use understanding of factor pairs to identify larger square numbers.			
	Understand that indices (squared) etc need to be calculated before other operations.			
	Multiply numbers with up to two decimal places by whole numbers			
	Divide any 4 digit number by a 2 digit number using formal long division.			
Fractions	Divide a number where the remainder must be expressed as a decimal or a fraction			
	Divide numbers up to 4 digits by a whole number and round up and down depending on the context.			
	Recognise the decimal and % equivalents of common fractions ie. $\frac{1}{5}$ $\frac{2}{5}$ $\frac{1}{3}$ $\frac{3}{10}$ $\frac{1}{8}$ etc			
	Compare and order fractions with a mixture of denominators			
	Compare and order fractions, decimals and percentages (including on a number line)			
	Order a mixed set of fractions, decimals and % by using knowledge of equivalence.			
Algebra	Add and subtract any 2 fractions (including mixed numbers and improper).			
	Multiply and divide fractions (including dividing proper fractions by a whole number)			
Ratio	Find percentages of a number.			
	Substitute values into a simple formula			
	Solve problems algebraically			
Shape	When given a simple ratio use multiplication and division facts to solve a problem			
	Solve problems involving ratio and the calculation of percentages			
	Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.			
	Construct triangles and quadrilaterals using a ruler and a protractor			
Position & Direction	Recognizing an accurate net for a cube and cuboid			
	Identify angles on parallel lines and opposite angles.			
	Find unknown angles in different types of triangle and quadrilaterals.			
	Describe the position of objects in the four quadrants of the coordinates grid			
Measurement	Reflect, translate and transform shapes			
	Predict missing co-ordinates of shapes on a grid			
	Solve problems and draw diagrams involving scale factors.			
	Finding elapsed time and interpreting timetables.			
	Convert between standard units of length, mass, volume and time using decimal notation			
Statistics	Calculate the perimeter of shapes with the same area and vice versa			
	Calculate the area of a triangle and parallelogram.			
	Calculate volume in cubic cm and metres.			
Statistics	Calculate the mean of a larger set of data.			
	Compare the data on two pie charts relating the fraction drawn to the size of the represented group.			
	Continue to complete and interpret information in a variety of sorting diagrams (including sorting properties of numbers and shapes)			

Woodlands Maths Milestones

46 points		Date	Date	Date
Number & Place Value	Identify, represent and estimate numbers using a number line			
	Order and compare numbers including integers, decimals and negative numbers			
	Round any number to a required degree of accuracy			
	Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places			
	Use negative numbers in context, and calculate intervals across zero			
	Use knowledge of the order of operations to carry out calculations			
Addition & Subtraction	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)			
	Perform mental calculations including with mixed operations and large numbers and decimals			
	Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy			
Multiplication & Division	Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places			
	Choose an appropriate strategy to solve a calculation based upon the numbers involved (e.g. if $325 \times 17 = 5,525$ , use this to calculate $18 \times 325$ )			
	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication			
	Divide numbers up to 4 digits by a two-digit whole number using the formal written methods of short or long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context			
Fractions	Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts			
	Associate a fraction with division and calculate decimal, percentage and fraction equivalents			
	Add, subtract and multiply fractions with different denominators and mixed numbers, using the concept of equivalent fractions			
Algebra	Generate and describe linear number sequences			
	Express missing number problems algebraically			
	Find pairs of numbers that satisfy an equation with two unknowns			
Ratio	Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication/division facts			
	Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples			
Shape	Compare/classify geometric shapes based on the properties and sizes			
	Draw 2-D shapes using given dimensions and angles			
	Recognise, describe and build simple 3-D shapes, including making nets for a range of shapes.			
	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles			
	Find unknown angles in any triangles, quadrilaterals and regular polygons			
Position & Direction	Describe positions on the full coordinate grid (all four quadrants)			
	Draw and translate simple shapes on the coordinate plane, and reflect them in the axes			
Measurement	Convert, use, read and write standard units of length, mass, volume and time using decimal notation to three decimal places			
	Convert between imperial and metric measures and vice versa			
	Recognise that shapes with the same areas can have different perimeters and vice versa			
	Recognise when it is possible to use formulae for area and volume of shapes			
	Calculate, estimate and compare 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 (e.g. $\text{mm}^3$ and $\text{km}^3$ )			
Statistics	Interpret and construct pie charts and line graphs and use these to solve problems			
	Continue to complete and interpret information in a variety of sorting diagrams (including sorting properties of numbers and shapes)			