Woodcote Primary School Learning Ladder
Maths Milestone 1 Autumn

Number and Place Value

- I can count to ten and twenty, forwards and backwards, beginning with 0 or 1, or from any given number
- I can count, read and write to 10 and 20 in numerals and words
- I can show numbers using objects and pictures
- I can use the words; equals to, more than, less than (fewer), most, least

Addition and Subtraction

- I can use number bonds to 10 and 20 to add and subtract
- I can add and subtract one-digit and two-digit numbers to 20, including zero (0)
- I can read, write and understand equations with +, - and = signs
- I can solve one step adding and subtracting problems using objects and pictures

Multiplication and Division

- I can count in multiples of 2 and 5

Fractions

Measurement

- I can use language to put events in order; before, after, next, first, today, yesterday, tomorrow, morning, afternoon, evening
- I can use, recognise and name days of the week, months and years (i.e 2015)

Geometry

- I can name common 2D shapes – rectangles (including squares), circles, triangles
- I can name common 3D shapes – cuboids (including cubes), pyramids and spheres
- I can describe position and movement including whole, half, quarter and three quarter turns

Statistics

Woodcote Primary School Learning Ladder
Maths Milestone 1 Spring

Number and Place Value

- I can say one more and one less than a number given
- I can count in twos and fives to 40
- I can count to 40, forwards and backwards, beginning with 0 or 1, or from a given number
- I can name and recognise tens and ones

Addition and Subtraction

- I can solve one-digit adding and subtracting missing number problems
- I can add and subtract within 40, a two-digit number and ones
- I can add and subtract within 40, a two-digit number and tens
- I can add and subtract within 40, two two-digit numbers
- I can add and subtract within 40, adding three one-digit numbers

Multiplication and Division

Measurement

- I can compare the weight, length, height and capacity of objects, i.e. longer, lighter than, less than, full
- I can measure and begin to record lengths, heights, mass/weight, capacity and volume in non-standard units

- I can tell the time to o'clock and half past, and draw the hands on a clock
- I can compare and solve problems for time; quicker, slower, earlier, later
- I can recognise & use language relating to dates, days, weeks, months & years
- I can sequence events in chronological order

Geometry

Statistics

Woodcote Primary School Learning Ladder
Maths Milestone 1 Summer

Number and Place Value

- I can count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- I can find and estimate numbers to 100 using pictures and objects
- I can read and write numbers to at least 100 in numerals and words

Addition and Subtraction

- I can add and subtract within 100, a two-digit number and ones
- I can add and subtract within 100, a two-digit number and tens
- I can add and subtract within 100, two two-digit numbers

Multiplication and Division

- I can solve one-step problems involving multiplication and division use objects, pictures and arrays with the support of an adult

Fractions

- I can recognise, find and name half as one of two equal parts of an object, shape or amount
- I can recognise, find and name a quarter as one of four equal parts of an object, shape or amount

Measurement

- I can recognise money and name the different coins and notes

Geometry

Statistics

Woodcote Primary School Learning Ladder
Maths Milestone 1 Working at Greater Depth

In addition to the Year 1 Programmes of Study I understand and regularly use the following correctly.

Number and Place Value		Addition and Subtraction		Multiplication. Division & Fractions		Measurement		Geometry	
I can show fluency and notice patterns in counting forwards and backwards across 100 and sometimes in larger steps	Au Sp Su	I can recall and use addition and subtraction facts to 20 fluently	Au Sp Su	I can solve problems involving multiplication and division in different topics including measures	Au Sp Su	I can solve more tricky problems (these may be practical) involving, money and other measures, including time	Au Sp Su	I can compare and sort common 2-D & 3-D shapes & common objects	Au Sp Su
		I can show fluency in mental addition & subtraction of one-digit & two-digit numbers to 20	Au Sp Su	I can explain and solve more difficult problems involving half & quarter of shapes and amounts	Au Sp Su	I can show understanding about more difficult practical problems involving money and other measures	Au Sp Su	I can show understanding & solve more difficult problems involving shapes and their properties	Au Sp Su
I show understanding about number facts to solve more difficult problems	Au Sp Su	I can use addition and subtraction facts to solve more tricky problems	Au Sp Su		Au Sp Su		Au Sp Su	I can solve more complex problems involving whole, half and three-quarter turns	Au Sp Su
Next Steps for Depth									
I can look at an answer and decide what the question could have been	Au Sp Su	I can explain what is wrong with an example and correct the error	Au Sp Su	I can draw a picture to explain or demonstrate what I have worked out	Au Sp Su	I can explain to a partner how I know something using key/star words	Au Sp Su	I can say what would have come before and what would come next, and explain how I know	Au Sp Su
I can solve problems with empty boxes	Au Sp Su	I can spot and explain patterns	Au Sp Su	I can make up a real-life story using my maths	Au Sp Su	I can convince someone else that I am right	Au Sp Su	I can find the odd one out and explain why it doesn't fit	Au Sp Su

Woodcote Primary School Learning Ladder
Maths Milestone 2 Autumn

Number and Place Value

- I can use place value and number facts to solve problems
- I can compare and order numbers from 0 up to 100 using <, > and =
- I can count in steps of 2, 3, and 5 from 0, and in tens from any number, forward & backward
- I can find 10 or 100 more or less than a given number

Addition and Subtraction

- I can recall and use addition and subtraction facts to 20 to find facts up to 100
- I can show that addition can be done in any order and that subtraction cannot
- I can recognise and use the inverse relationship between addition & subtraction
- I can add & subtract within 100, adding three one-digit numbers

Multiplication and Division

- I can calculate & write multiplication and division equations using x, ÷ & =
- I can solve multiplication & division problems using objects, arrays, repeated +, mentally, and known facts
- I can show that multiplication can be done in any order and that division cannot
- I can recall x & ÷ facts for the 2, 5 and 10 tables, including recognising odd and even numbers

Fractions

Measurement

- I can choose and use appropriate standard units to estimate and measure length/ height in any direction (m/cm) to the nearest appropriate unit, using rulers and scales
- I can compare and order length and record the results using >, < and =

Geometry

Statistics

- I can interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- I can ask and answer simple questions by counting the number of objects in each category and sorting categories by quantity
- I can ask and answer questions about totalling and comparing data in groups

Woodcote Primary School Learning Ladder
Maths Milestone 2 Spring

Number and Place Value

- I can compare and order length and mass and record the results using <, > and =
- I can recognise the hundreds, tens and ones in a 3-digit number
- I can count from 0 in multiples of 4, 50 and 100

Addition and Subtraction

- I can solve problems with + & - involving numbers, quantities & measures
- I can use my knowledge of mental and written methods
- I can solve problems with + & - of money, including giving change
- I can show that addition can be done in any order and subtraction of one number from another cannot

Multiplication and Division

Fractions

- I can recognise, find, name & write fractions $\frac{1}{3}$ $\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ of a length, shape, set of objects or amount
- I can write simple fractions for example $\frac{1}{2}$ of 6 = 3
- I can recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$

Measurement

- I can recognise & use symbols for pounds (£) & pence (p)
- I can combine coins to make different amounts
- I can find different combinations of coins that equal the same amount

Geometry

- I can describe the properties of 2D shapes (sides and line of symmetry)
- I can describe the properties of 3D shapes (edges, vertices & faces)
- I can find 2D shapes on the surface of 3D shapes.

Geometry

- I can describe position, direction and movement, including movement in a straight line, rotation through right angles (clockwise and anticlockwise)
- I can order and arrange patterns and sequences
- I can compare and sort common 2D and 3D shapes

Woodcote Primary School Learning Ladder
Maths Milestone 2 Summer

Number and Place Value

- I can compare and order capacity and temperature and record the results using <, > and =
- I can estimate numbers to 1000 using pictures or objects
- I can compare and order numbers up to 1000
- I can read and write numbers up to 1000 in numerals and words

Addition and Subtraction

- I can + & - numbers mentally, including a 3-digit number and ones
- I can + & - numbers mentally, including a 3-digit number and tens
- I can + & - numbers mentally, including a 3-digit number and hundreds
- I can + & - with up to 3-digits using column method
- I can estimate the answer and use the inverse to check my answers

Multiplication and Division

- I can recall and use x and ÷ facts for the 3 & 4 multiplication tables
- I can show that multiplication of two numbers can be done in any order and division of one number by another cannot

Fractions

Measurement

- I can choose and use units to estimate and measure capacity (l/ml) & temperature (°C) to the nearest unit
- I can compare and order mass, volume and capacity and record the results using >, < and =
- I can tell & write the time to 5 minutes, including quarter past/ to the hour and draw the hands on a clock face
- I know the number of minutes in an hour & the number of hours in a day
- I can compare and sequence intervals of time

Geometry

Statistics

- I can understand and draw simple pictograms, tally charts, block diagrams and simple tables
- I can ask and answer simple questions by counting the data
- I can ask and answer questions about totalling and comparing data

Woodcote Primary School Learning Ladder
Maths Milestone 2 Working at Greater Depth

In addition to the Year 2 Programmes of Study I understand and regularly use the following correctly.

Calculation and Number Facts		Addition and Subtraction		Multiplication. Division & Fractions		Measurement		Geometry	
I can work out mental calculations when regrouping is required (e.g. 52 – 27)	Au Sp Su	I can reason about addition (e.g. I can reason that the sum of 3 odd numbers will always be odd)	Au Sp Su	I can use multiplication facts to make deductions outside known multiplication facts (e.g. 18 x 5 cannot be 92)	Au Sp Su	I can read the time on the clock to the nearest 5 minutes	Au Sp Su	I can describe similarities and differences of shape properties.	Au Sp Su
I can solve more complex missing number problems (e.g. 14 + ? – 3 = 17)	Au Sp Su	I can recognise the relationships between addition & subtraction and can rewrite addition statements as simplified multiplication statements	Au Sp Su	I can determine remainders given known facts (e.g. 15 ÷ 3 = 5 with no remainder so 16 ÷ 3 will have a remainder of 1)	Au Sp Su	I can read scales in divisions of ones, twos, fives and tens in a practical situation where not all numbers on the scale are given	Au Sp Su		Au Sp Su
I can solve word problems that involve more than one step	Au Sp Su	I can find and compare fractions of amounts	Au Sp Su		Au Sp Su		Au Sp Su		Au Sp Su
Next Steps for Depth									
I can look at an answer and decide what the question could have been	Au Sp Su	I can explain what is wrong with an example and correct the error	Au Sp Su	I can draw a picture to explain or demonstrate what I have worked out	Au Sp Su	I can explain to a partner how I know something using key/star words	Au Sp Su	I can say what would have come before and what would come next, and explain how I know	Au Sp Su
I can solve problems with empty boxes	Au Sp Su	I can spot and explain patterns	Au Sp Su	I can make up a real-life story using my maths	Au Sp Su	I can convince someone else that I am right	Au Sp Su	I can find the odd one out and explain why it doesn't fit	Au Sp Su

Woodcote Primary School Learning Ladder
Maths Milestone 3 Autumn

Number and Place Value

- I can recognise the place value of each digit`, compare and order numbers up to 100
- I can find 10 or 100 more or less than a given number
- I can read and write numbers up to 1000 in numerals and words
- I can use a numberline.
- I can estimate the answer and use the inverse to check

Addition and Subtraction

- I can solve + & - problems, including missing number problems, using number facts, place value
- I can add and subtract 2-digit & 3-digit numbers mentally including a 3-digit number and ones, tens or hundreds
- I can + & - with up to 3-digits using column methods

Multiplication and Division

Fractions

Measurement

- I can + & - amounts of money to give change
- I can continue to measure using the appropriate tools and units
- I can measure the perimeter of simple 2D shapes
- I can measure and compare lengths (m/cm/mm)

Geometry

Statistics

- I can interpret and present data using bar charts, pictograms and tables
- I can solve one-step and two-step questions using information presented in scaled bar charts, and pictograms and tables

Woodcote Primary School Learning Ladder
Maths Milestone 3 Spring

Number and Place Value

- I can count up and down in tenths

Addition and Subtraction

- I can add and subtract fractions with the same denominator within one whole
- I can add and subtract lengths within the same unit of measure (m/cm/mm)

Multiplication and Division

- I can write and calculate statements for x & ÷ using the multiplication tables for 2, 3, 4, 5 and 10 times tables
- I can multiply a 2-digit number by 2, 3, 4, 5 or 10 mentally and using a formal written method.
- I can solve x & ÷ problems, including missing number problems, & problems such as *n* x 3 = *m* showing understanding that the two missing numbers will change in relation to each other

Fractions (Including Decimals)

- I can find and write fractions of numbers, including unit fractions and non-unit fractions with small denominators
- I understand tenths arise from dividing an object into 10 equal parts & in dividing 1-digit numbers or quantities by 10
- I can recognise and show equivalent fractions with small denominators
- I can compare and order unit fractions, and fractions with the same denominators

Measurement

- I can tell & write the time from an analogue clock, using Roman numerals and 12 hour and 24 hour clocks.
- I can estimate and read time to the nearest minute
- I can read and compare time in sec, min, hr
- I know the number of seconds in a minute, days in each month, year.
- I can compare the duration of events

Geometry

Statistics

Woodcote Primary School Learning Ladder
Maths Milestone 3 Summer

Number and Place Value

- I can find 1000 more or less than a given number
- I can recognise the place value of each digit in a 4-digit number
- I can order and compare numbers beyond 1000
- I can round any number to the nearest 10 or 100

Addition and Subtraction

Multiplication and Division

- I can write and calculate statements for x & ÷ using the multiplication tables for 6 and 8 times tables
- I can multiply a 2-digit number by any 1-digit number mentally and using a formal written method.

Fractions (Including Decimals)

Measurement

- I can measure and compare mass (kg/g)
- I can measure and compare volume/ capacity (l/ml)
- I can compare and use mixed units of measures i.e. 3m 45cm
- I can compare and use simple equivalent of measure

Geometry

- I can recognise angles as a property of shape or a description of turn
- I can identify right angles and recognise that two right angles make a half-turn, three makes three quarters of a turn and four a complete turn.
- I can identify whether angles are greater than or less than a right angle
- I can draw 2D shapes and make 3D shapes using modelling materials

Geometry

- I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines
- I can recognise 3D shapes in different orientations

Woodcote Primary School Learning Ladder
Maths Milestone 3 Working at Greater Depth

In addition to the Year 3 Programmes of Study I understand and regularly use the following correctly.

Number and Place Value		Calculations		Fractions and Decimals		Measurement & Statistics		Geometry	
I can demonstrate fluency and reasoning in counting in multiples of 4, 8, 50 and 100 to 1000	Au Sp Su	I can demonstrate fluency in mental addition & subtraction of 1- & 2-digit numbers to 20	Au Sp Su	I can reason about and solve more complex problems involving unit fractions, tenths and equivalent fractions with small denominators	Au Sp	I can solve more complex problems involving, money and other measures, including duration of time.	Au Sp Su	I can reason about & solve more complex problems involving shapes including right angles & turns	Au Sp Su
I can demonstrate fluency and reasoning in comparing and ordering numbers up	Au Sp Su	I can use addition and subtraction facts to solve more complex problems	Au Sp Su		Su	I can reason about more complex practical problems involving money and other measures.	Au Sp Su	I can solve more complex problems involving horizontal, vertical, perpendicular and parallel lines, including rounding decimals with accuracy to draw and measure straight lines	Au Sp
I can demonstrate reasoning about number facts to solve more complex problems	Au Sp Su	I can recall and use multiplication and division facts for multiplications tables from 2 to 10	Au Sp Su		Au Sp Su	I can interpret and construct with accuracy pictograms and more complex tables using scales e.g. 2,5,10 units per cm	Au Sp Su		Su
		I can solve problems involving multiplication and division in a range of contexts including measures	Au Sp Su			I can ask and answer questions presented in many contexts about data presented in different forms	Au Sp Su		
Next Steps for Depth									
I can look at an answer and decide what the question could have been	Au Sp Su	I can explain what is wrong with an example and correct the error	Au Sp Su	I can draw a picture to explain or demonstrate what I have worked out	Au Sp Su	I can explain to a partner how I know something using key/star words	Au Sp Su	I can say what would have come before and what would come next, and explain how I know	Au Sp Su
I can solve problems with empty boxes	Au Sp Su	I can spot and explain patterns	Au Sp Su	I can make up a real-life story using my maths	Au Sp Su	I can convince someone else that I am right	Au Sp Su	I can find the odd one out and explain why it doesn't fit	Au Sp Su

Woodcote Primary School Learning Ladder
Maths Milestone 4 Autumn

Number and Place Value

- I can find 1000 more or less than a given number
- I can recognise the place value of each digit in a 4-digit number
- I can order & compare numbers beyond 1000
- I can round any number to the nearest 10, 100 or 1000
- I can read Roman numerals to 100 (I to C)
- I can count in multiples of 6, 7, 9, 25 and 1000

Addition and Subtraction

- I can add and subtract numbers with up to 4-digits using column methods
- I can estimate and use the inverse operations to check the answers to calculations
- I can solve addition and subtraction two-step problems deciding which operations and methods to use and why

Multiplication and Division

- I can recall x & ÷ facts for times tables up to 12 x 12
- I can solve x & ÷ problems, including correspondence problems in which *n* objects are connected to *m* objects
- I can use place value and known facts to multiply and divide by 0 & 1
- I can multiply together 3 numbers up to 12 x 12
- I can multiply 2-digit and 3-digit numbers by a 1-digit number using a formal written method

Fractions (Including Decimals)

Measurement

- I can solve problems converting hours to minutes; minutes to seconds; years to months; weeks to days
- I can write and convert time between analogue and digital 12- and 24-hour clocks

Geometry

Statistics

- I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs
- I can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs

Woodcote Primary School Learning Ladder
Maths Milestone 4 Spring

Number and Place Value

- I can count up and down in hundredths
- I recognise that hundredths arise when dividing an object by one hundred and dividing tenths by 10
- I can round decimals with one decimal place to the nearest whole number
- I can compare numbers with the same number of decimal places to the nearest whole number

Addition and Subtraction

- I can add and subtract fractions with the same denominator

Multiplication and Division

- I can find the effect of dividing 1- or 2-digit numbers by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths

Fractions (Including Decimals)

- I can recognise and show, using diagrams, families of equivalent fractions
- I can solve problems involving increasingly harder fractions to calculate and divide quantities, including non-unit fractions where the answer is a whole number
- I can recognise and write decimal equivalence of any number of tenths or hundredths
- I can recognise and write decimal equivalence to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$

Measurement

- I can solve simple measure and money problems involving fractions and decimals to two decimal places.
- I can estimate, compare and calculate different measures, including money in pounds and pence
- I can measure and calculate the perimeter of rectangles in cm and m
- I can convert different units of measure
- I can find the area of rectangles by counting squares

Geometry

Statistics

Woodcote Primary School Learning Ladder
Maths Milestone 4 Summer

Number and Place Value

I can count backwards through zero to include negative numbers

Addition and Subtraction

I can use my prior learning of + & - in a range of consolidation, reasoning and problem solving activities

Multiplication and Division

I can recognise & use factor pairs and that multiplication can be done in any order in mental calculations

I can use my prior learning of x & ÷ in a range of consolidation, reasoning and problem solving activities

I can write & calculate mathematical statements for x & ÷ using multiplication tables I know, including two-digit numbers time one-digit numbers, using mental & progressing to written methods

Fractions (Including Decimals)

Measurement

Geometry

I can describe positions on a 2-D grid as coordinates in the 1st quadrant

I can describe movements between positions as translations

I can plot specified points and draw sides to complete a given polygon

I can complete a simple symmetric figure with a specific line of symmetry

I can identify, compare and order acute and obtuse angles up to 2 right angles

I can compare and classify quadrilaterals and triangles based on their properties.

Woodcote Primary School Learning Ladder
Maths Milestone 4 Working at Greater Depth

In addition to the Year 4 Programmes of Study I understand and regularly use the following correctly.

Number and Place Value		Calculations		Fractions and Decimals		Measurement & Statistics		Geometry	
I can demonstrate fluency and reasoning in counting in multiples of 6,7,9,25 and 1000 and in comparing and ordering numbers beyond 1000	Au Sp Su	I can demonstrate fluency in mental addition & subtraction of one-digit & two-digit numbers to 20	Au Sp Su	I can reason about and solve more complex problems involving decimal equivalents of numbers (tenths and hundredths) and families of equivalent fractions	Au Sp Su	I can solve more complex problems involving, money and other measures, including duration of time using 12 and 24 hour clock.	Au SP Su	I can reason about & solve more complex problems involving shapes including different triangles, acute and obtuse angles	Au Sp Su
		I can use addition and subtraction facts to solve more complex problems	Au Sp Su						
I can demonstrate reasoning about number facts to solve more complex problems.	Au Sp Su	I can recall and use fluently multiplication and division facts for multiplication facts up to 12x12	Au Sp Su		Au Sp Su	I can ask and answer questions using data presented in a range of graphs and demonstrate an understanding of graphical representation of data to record change over time.	Au Sp Su	I can solve problems involving reasoning about shapes and their positions on a 2-D grid using co-ordinates in the first quadrant	Au Sp Su
		I can solve problems involving multiplication and division in a range of contexts including measures.	Au Sp Su						
Next Steps for Depth									
I can look at an answer and decide what the question could have been	Au Sp Su	I can explain what is wrong with an example and correct the error	Au Sp Su	I can draw a picture to explain or demonstrate what I have worked out	Au Sp Su	I can explain to a partner how I know something using key/star words	Au Sp Su	I can say what would have come before and what would come next, and explain how I know	Au Sp Su
I can solve problems with empty boxes	Au Sp Su	I can spot and explain patterns	Au Sp Su	I can make up a real-life story using my maths	Au Sp Su	I can convince someone else that I am right	Au Sp Su	I can find the odd one out and explain why it doesn't fit	Au Sp Su

Woodcote Primary School Learning Ladder
Maths Milestone 5 Autumn

Number and Place Value

- I can read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
- I can count forwards or backwards in steps of powers of 10
- I can use negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.
- I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000
- I can read Roman Numerals to 1000 (M) and recognise years written in Roman numerals

Addition and Subtraction

- I can add and subtract numbers mentally with increasingly large numbers
- I can + & - whole numbers with more than 4-digits, using column method
- I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

Multiplication and Division

- I can x & ÷ numbers mentally drawing upon known facts
- I can x & ÷ whole numbers by 10, 100 & 1000
- I can x & ÷ numbers mentally drawing upon known facts
- I can x numbers up to 4-digits by a 1-digit or 2-digit number using grid method and long multiplication
- I can ÷ numbers up to 4-digits by a 1-digit number using a formal written method and interpret remainders appropriately for the context
- I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- I can recognise and use square numbers and cube numbers and the correct notation
- I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- I know and use the vocabulary of prime numbers, prime factors and composite numbers

Measurement

- I can measure & calculate the perimeter of composite rectangular shapes in cm & m
- I can convert between different units of metric measure
- I can understand and use approximate equivalences between metric and common imperial units such as inches, pounds & pints
- I can solve problems involving converting between units of time
- I can calculate and compare the area of rectangles using square centimetres and square metres.
- I can estimate the area of irregular shapes
- I can estimate volume (i.e. using 1cm³ blocks to build cuboids) and capacity (i.e. using water)

Statistics

Woodcote Primary School Learning Ladder
Maths Milestone 5 Spring

Number and Place Value

- I can establish whether a number up to 100 is prime and recall prime numbers up to 19
- I can round decimals with two decimal places to the nearest whole number and to one decimal place

Addition and Subtraction

- I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- I can add and subtract fractions with the same denominator and denominators that are multiples of the same number

Multiplication and Division

- I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- I can solve problems involving multiplication and division, including scaling by simple fractions i.e. recipes for different numbers of people.

Fractions (Including Decimals and Percentages)

- I can compare & order fractions whose denominators are multiples of the same number
- I can recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number
- I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- I can read, write, order and compare numbers with up to 3 decimal places
- I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- I can solve problems involving number up to three decimal places
- I can x & ÷ whole and decimal numbers by 10, 100 & 1000
- I can write percentage, decimal and fraction equivalents
- I can use all 4 operations to solve problems involving measure using decimal notation
- I can recognise the per cent symbol (%) & understand that per cent relates to 'number of parts per hundred'
- I can solve problems which require knowing percentage, decimal equivalents and fractions with a denominator of 10 or 25

Statistics

- I can solve comparison, sum and difference problems using information presented in a line graph
- I can complete, read and interpret information in tables, including timetables

Woodcote Primary School Learning Ladder
Maths Milestone 5 Summer

Number and Place Value

- I can round decimals with two decimal places to the nearest whole number and to one decimal place

Addition and Subtraction

- I can use my prior learning of + & - in a range of consolidation, reasoning and problem solving activities
- I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign

Multiplication and Division

- I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign

Fractions (Including Decimals and Percentages)

- I can solve problems involving number up to three decimal places
- I can x & ÷ whole and decimal numbers by 10, 100 & 1000
- I can use all 4 operations to solve problems involving measure using decimal notation

Geometry

- I know a whole turn is 360° and $\frac{1}{2}$ a turn is 180°
- I can find angles on a straight line
- I can use the properties of rectangles to find missing lengths & angles
- I can draw angles, and measure them in degrees (°)
- I can identify 3D shapes, including cubes and other cuboids, from 2D representations
- I can reflect and translate shapes using appropriate language, knowing the shape has not changed

Statistics

- I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles

Woodcote Primary School Learning Ladder
Maths Milestone 5 Working at Greater Depth

In addition to the Year 5 Programmes of Study I understand and regularly use the following correctly.

Number and Place Value		Calculations		Fractions, Decimals and Percentages		Measurement & Statistics		Geometry	
I can demonstrate fluency and reasoning in counting in steps of powers of 10 for any given number up to 1 000 000	Au Sp Su	I can demonstrate fluency and flexibility in solving multi-step problems involving addition & subtraction of larger numbers	Au Sp Su	I can reason about and solve more complex problems involving equivalent fractions, decimal numbers and percentages	Au Sp Su	I can demonstrate fluency in converting between different units of measure to solve problems, using all four operations	Au Sp Su	I can reason about and make deductions when solving more complex problems involving angles	Au Sp Su
I can demonstrate reasoning about number facts to solve more complex problems	Au Sp Su	I can demonstrate fluency in mental addition and subtraction of large numbers	Au Sp Su			I can reason about more complex problems involving calculation of area and volume	Au Sp Su	I can solve more complex problems involving reflection and translation of shapes	Au Sp Su
		I can demonstrate fluency in multiplying & dividing whole numbers & those involving decimals by 10, 100 & 1000	Au Sp Su			I can interpret & construct with accuracy table, timetables and line graphs	Au Sp Su		
		I can reason about and solve more complex problems involving, for example, square numbers & cube numbers	Au Sp Su			I can decide which representations of data are most appropriate and why	Au Sp Su		
Next Steps for Depth									
I can look at an answer and decide what the question could have been	Au Sp Su	I can explain what is wrong with an example and correct the error	Au Sp Su	I can draw a picture to explain or demonstrate what I have worked out	Au Sp Su	I can explain to a partner how I know something using key/star words	Au Sp Su	I can say what would have come before and what would come next, and explain how I know	Au Sp Su
I can solve problems with empty boxes	Au Sp Su	I can spot and explain patterns	Au Sp Su	I can make up a real-life story using my maths	Au Sp Su	I can convince someone else that I am right	Au Sp Su	I can find the odd one out and explain why it doesn't fit	Au Sp Su

Woodcote Primary School Learning Ladder
Maths Milestone 6; Year 6 Programmes of Study

Number and Place Value

- I can read, write, order and compare numbers up to 10 000 000 & determine the value of each digit
- I can round any whole number to a required degree of accuracy
- I can use negative numbers in context, and calculate intervals across zero
- I can solve number and practical problems that involve all of the above

Addition, Subtraction, Multiplication and Division

- I can x using Grid, Column & long multiplication
- I can ÷ using short & long division, & interpret remainders as whole numbers, fractions, or by rounding
- I can perform mental calculations with mixed operations
- I can identify common factors, common multiples & prime numbers
- I use my knowledge of the order of operations
- I can solve +/- multi-step problems deciding which operation and method to use and why
- I use estimation to check answers & determine, in the context an appropriate degree of accuracy

Fractions (Including Decimals and Percentages)

- I use common factors to simplify fractions, and common factors to express fractions in the same denomination
- I can compare & order fractions, including >1
- I can +/- fractions with different denominators & mixed numbers
- I can multiply simple pairs of proper fractions writing the answer in its simplest form
- I can ÷ proper fractions by whole numbers
- I associate a fraction with division and calculate decimal fraction equivalents for a simple fraction
- I can x & ÷ with decimals and decimal answers
- I can recall & use simple fraction, decimal & % equivalences

Ratio and Proportion

- I can solve problems involving the relative sizes of 2 quantities where missing values can be found by using x & ÷ facts
- I can solve problems involving the calculation of % & the use of % comparisons
- I can solve problems involving similar shapes where the scale factor is known/found
- I can solve problems involving unequal sharing & grouping using knowledge of fractions and multiples

Algebra

- I can use simple formulae
- I can generate and describe linear number sequences
- I can express missing number problems algebraically
- I can find pairs of numbers that satisfy an equation with two unknowns
- I can enumerate possibilities of combinations from two variables

Statistics

- I can interpret and construct pie charts and line graphs and use these to solve problems
- I can calculate and interpret mean as an average

Measurement

- I can solve problems involving the calculation & conversion of units of measure, using decimal notation to 3dp
- I can use, read, write & convert between standard units of measure using decimal notation to 3dp
- I can convert between m & km
- I recognise that shapes with the same area can have different perimeters
- I recognise when it is possible to use formulae for area & volume
- I can calculate the area of parallelograms & triangles
- I can calculate, estimate & compare volume of cubes & cuboids using standard units (cubic cm, m, mm, km)

Geometry

- I can draw 2D shapes using from dimensions & angles
- I recognise, describe & build simple 3D shapes & nets
- I can compare & classify shapes
- I can find unknown angles in any triangles, quads & regular polygons
- I can illustrate & name radius, diameter & circumference, & know diameter is 2x radius
- I recognise angles where they meet at a point, are on a straight line, or are vertically opposite, & find missing angles
- I can describe position in all four quadrants
- I can draw & translate simple shapes on the coordinate plane and reflect them in axes

Woodcote Primary School Learning Ladder
Maths Milestone 6 Working at Greater Depth

In addition to the Year 6 Programmes of Study I understand and regularly use the following correctly.

Number and Place Value		Calculations		FDRP		Algebra & Measurement		Geometry & Statistics	
I can explain and solve problems that require me to read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	Au Sp Su	I can say whether an answer to an addition and/or subtraction problem is correct and whether the method is effective, including with fractions and decimals	Au Sp Su	I can order and compare a set of mixed decimals, fractions, percentages and ratios, and explain my decisions	Au Sp	I can generate sequences from rules, write my own rules and explain why common patterns occur	Au Sp Su	I can explain what is the same or different using a deeper understanding of geometry	Au Sp Su
I can say whether I agree or disagree with a statement by rounding any whole number to a required degree of accuracy	Au Sp Su	I can use estimation to compare answers & explain my reasoning	Au Sp Su	I can solve problems and calculations that involve mixed fractions, decimals, percentages and ratios, and explain my reasoning	Su	I can answer a range of questions starting 'What happens if...?' using a range of measures	Au Sp Su	I can use estimation to explain my reasoning with angles	Au Sp Su
I can solve problems that involve calculations with negative numbers	Au Sp Su	I can confidently use long multiplication and division to solve a range of problems including those with decimals	Au Sp Su	I can answer true or false statements involving fractions, decimals, percentages and/or ratios	Au Sp Su	I can calculate the area and perimeter of a range of shapes, including compound shapes made of different shapes	Au Sp Su		
		I can use my knowledge of the order of operations to carry out calculations involving the four operations	Au Sp Su	I can order mixed, fractions, decimals and percentages on a number line and justify my choices	Au Sp Su				
Next Steps for Depth									
I can look at an answer and decide what the question could have been	Au Sp Su	I can explain what is wrong with an example and correct the error	Au Sp Su	I can draw a picture to explain or demonstrate what I have worked out	Au Sp Su	I can explain to a partner how I know something using key/star words	Au Sp Su	I can say what would have come before and what would come next, and explain how I know	Au Sp Su
I can solve problems with empty boxes	Au Sp Su	I can spot and explain patterns	Au Sp Su	I can make up a real-life story using my maths	Au Sp Su	I can convince someone else that I am right	Au Sp Su	I can find the odd one out and explain why it doesn't fit	Au Sp Su