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MATHS

NAME _____

CLASS _____

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school explained



MATHS LADDER
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YEAR 5	I can quickly recall all the multiplication and division facts for tables up to 12 x 12 and can use them confidently in larger calculations.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recall and use the multiplication and division facts for all tables up to 12 x 12.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recall and use the multiplication and division facts for the 7 times tables.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can recall and use the multiplication and division facts for the 6 and 9 times tables recognising their relationship to the 3 times table.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recall and use the multiplication and division facts for the 8 times tables recognising its relationship to the 4 times table.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recall and use the multiplication and division facts for the 3 and 4 times tables.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recall and use the multiplication facts for the 3 and 4 times tables.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 3	I can recall and use division facts for 2, 5 and 10 times tables.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recall and use multiplication facts for 2, 5 and 10 times tables.	COMPLETE?	COMPLETE?	COMPLETE?
	I can count in 3's from zero.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can count in 2's, 5's and 10's from zero.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1				

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YEAR 6

I can use negative numbers in context and calculate intervals across zero.

COMPLETE? COMPLETE? COMPLETE?

I can round any whole number to a required degree of accuracy.

COMPLETE? COMPLETE? COMPLETE?

I can read, write order and compare numbers up to 10,000,000 and determine the value of each digit.

COMPLETE? COMPLETE? COMPLETE?

YEAR 5

I can interpret negative numbers in context.

COMPLETE? COMPLETE? COMPLETE?

I can count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000.

COMPLETE? COMPLETE? COMPLETE?

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YEAR 3	I can add 2 digit numbers and 3 digit numbers using column addition.	COMPLETE?	COMPLETE?	COMPLETE?
	I can estimate the answer to an addition calculation or use the inverse to check it is correct.	COMPLETE?	COMPLETE?	COMPLETE?
	I can add 2 digit numbers and 3 digit numbers using expanded column addition (Written strategy 2).	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can partition 2 and 3 digit numbers and add vertically using base 10 or practical resources without crossing boundaries.	COMPLETE?	COMPLETE?	COMPLETE?
	I can add 10 or 100 to any number and can add in multiples of 10.	COMPLETE?	COMPLETE?	COMPLETE?
	I can partition a number to add using number bonds to 10 e.g. $8+7$ is $8+2+5$.	COMPLETE?	COMPLETE?	COMPLETE?
	I can add in tens and ones using an unstructured number line.	COMPLETE?	COMPLETE?	COMPLETE?
	I know my number facts to 20.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1	I can add in tens and ones using a structured number line.	COMPLETE?	COMPLETE?	COMPLETE?
	I can add in ones using a structured number line.	COMPLETE?	COMPLETE?	COMPLETE?
	I can add in ones using practical resources.	COMPLETE?	COMPLETE?	COMPLETE?

YEAR 5	I can round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000.	COMPLETE?	COMPLETE?	COMPLETE?
	I can read write order and compare numbers to 1 000 000 (1 million) and determine the value of each digit.	COMPLETE?	COMPLETE?	COMPLETE?
	I can count backwards through zero to include negative numbers.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can round any whole number to the nearest 10, 100 or 1000.	COMPLETE?	COMPLETE?	COMPLETE?
	I can say 1000 more or less than any given number.	COMPLETE?	COMPLETE?	COMPLETE?
	I can compare and order numbers beyond 1000.	COMPLETE?	COMPLETE?	COMPLETE?
	I can represent numbers in different ways e.g. words, numerals, base 10, etc.	COMPLETE?	COMPLETE?	COMPLETE?
	I can understand the value of each digit in a 4 digit number.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 3	I can count in tens and hundreds and can add or subtract 10 or 100 from any given number up to 1000.	COMPLETE?	COMPLETE?	COMPLETE?

MATHS LADDER
PLACE VALUE

YEAR 3

I can compare and order numbers up to 1000.

COMPLETE? COMPLETE? COMPLETE?

I can read and write numbers up to 1000 in numerals and words.

COMPLETE? COMPLETE? COMPLETE?

I can understand the value of each digit in a 3 digit number.

COMPLETE? COMPLETE? COMPLETE?

I can count in tens from any number including crossing boundaries into hundreds.

COMPLETE? COMPLETE? COMPLETE?

YEAR 2

I can compare and order numbers from 0 up to 100 using $>$, $<$ and $=$ signs.

COMPLETE? COMPLETE? COMPLETE?

I can understand the value of each digit in a 2 digit number.

COMPLETE? COMPLETE? COMPLETE?

I can continue simple number sequences and shape patterns.

COMPLETE? COMPLETE? COMPLETE?

I can identify odd and even numbers up to 20.

COMPLETE? COMPLETE? COMPLETE?

I can identify one more/one less from a given number.

COMPLETE? COMPLETE? COMPLETE?

YEAR 1

I can read and write numbers from 1 to 100 in numerals.

COMPLETE? COMPLETE? COMPLETE?

I can read and write numbers from 1 to 20 in numerals and words.

COMPLETE? COMPLETE? COMPLETE?

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MATHS LADDER
ADDITION

YEAR 5

I can add a mix of whole numbers and decimals with different numbers of decimal places using column addition.

COMPLETE? COMPLETE? COMPLETE?

I can use rounding to estimate and check answers to calculations.

COMPLETE? COMPLETE? COMPLETE?

I can add large numbers in different contexts using formal column addition.

COMPLETE? COMPLETE? COMPLETE?

I can add money with decimal places using formal column addition.

COMPLETE? COMPLETE? COMPLETE?

I can add 3 and 4 digit numbers using formal column addition.

COMPLETE? COMPLETE? COMPLETE?

I can use inverse operations to check calculations.

COMPLETE? COMPLETE? COMPLETE?

I can add money with decimal places using expanded column addition.

COMPLETE? COMPLETE? COMPLETE?

I can add using both £ and p in practical contexts.

COMPLETE? COMPLETE? COMPLETE?

YEAR 4

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YEAR 3	I can subtract money using both £ and p to give change in practical contexts.	COMPLETE?	COMPLETE?	COMPLETE?
	I can subtract 2 and 3 digit numbers using column subtraction without decomposing.	COMPLETE?	COMPLETE?	COMPLETE?
	I can estimate the answer to a subtraction calculation or use the inverse to check it is correct.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can partition a number and subtract using column subtraction without decomposing (2 and 3 digit numbers) .	COMPLETE?	COMPLETE?	COMPLETE?
	I can use related facts to subtract multiples of 10 and 100 e.g. $6-4=2$ $60-40=20$.	COMPLETE?	COMPLETE?	COMPLETE?
	I can subtract more efficiently using a number line using jumps of multiples of 10 with numbers up to 3 digits.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1	I know all the subtraction facts to 20.	COMPLETE?	COMPLETE?	COMPLETE?
	I can subtract in tens and ones using a unstructured number line.	COMPLETE?	COMPLETE?	COMPLETE?
	I can subtract in tens and ones using a structured number line.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1	I can subtract in ones using a structured number line.	COMPLETE?	COMPLETE?	COMPLETE?
	I can subtract in ones using practical resources.	COMPLETE?	COMPLETE?	COMPLETE?

YEAR 6 (Extension)	I can express missing co-ordinates algebraically.	COMPLETE?	COMPLETE?	COMPLETE?
	I can predict missing co-ordinates using the properties of shapes.	COMPLETE?	COMPLETE?	COMPLETE?
	I can reflect simple shapes in the axes.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 6	I can draw and translate simple shapes on a 4 quadrant grid.	COMPLETE?	COMPLETE?	COMPLETE?

MATHS LADDER
POSITION AND DIRECTION

YEAR 5	I can label the axes of a grid in all 4 quadrants and describe a position on the grid.	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify, describe and draw the position of a shape on a grid after a translation.	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify, describe and draw the position of a shape on a grid after a reflection on a line parallel to the axis.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can translate shapes on a grid and describe the movement using left/right, up/down.	COMPLETE?	COMPLETE?	COMPLETE?
	I can complete polygons by giving a missing co-ordinate on a grid.	COMPLETE?	COMPLETE?	COMPLETE?
	I can use co-ordinates to plot a shape on a grid (1st quarter).	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can describe positions on a 2D grid.	COMPLETE?	COMPLETE?	COMPLETE?
	I can distinguish between rotation as a turn and in terms of right angles for quarter, half and three quarter turns.	COMPLETE?	COMPLETE?	COMPLETE?
	I can use mathematical vocabulary to describe position, direction and movement including movement in a straight line.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1	I can order and arrange combinations of mathematical objects in patterns and sequences.	COMPLETE?	COMPLETE?	COMPLETE?
	I can describe position, direction and movement including whole, $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$.	COMPLETE?	COMPLETE?	COMPLETE?

MATHS LADDER
SUBTRACTION

YEAR 5	I can subtract a mix of whole numbers and decimals with different numbers of decimal places using column subtraction.	COMPLETE?	COMPLETE?	COMPLETE?
	I can use rounding to check answers to calculations.	COMPLETE?	COMPLETE?	COMPLETE?
	I can subtract large numbers using formal column subtraction.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can subtract 3 and 4 digit numbers using formal column subtraction.	COMPLETE?	COMPLETE?	COMPLETE?
	I can use the inverse to check calculations.	COMPLETE?	COMPLETE?	COMPLETE?
	I can subtract 3 digit numbers by partitioning and decomposing using column subtraction.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1	I can subtract money including decimals using a number line e.g. finding the change from £5.00.	COMPLETE?	COMPLETE?	COMPLETE?

YEAR 4	I can multiply 3 numbers, combining them in different ways and using my knowledge of number facts to make this easier e.g. $2 \times 6 \times 5 = 10 \times 6$ derived from $(2 \times 5) \times 6$.	COMPLETE?	COMPLETE?	COMPLETE?
	I can use a formal vertical method to multiply TO and HTO by O.	COMPLETE?	COMPLETE?	COMPLETE?
	I can use an expanded vertical method to multiply money with 2 decimal places by O (a one digit number).	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 3	I can use an expanded vertical method to multiply TO and HTO by O.	COMPLETE?	COMPLETE?	COMPLETE?
	I can use related facts to multiply multiples of 10 and 100 e.g. $2 \times 3 = 6$, $2 \times 30 = 60$, $2 \times 300 = 600$.	COMPLETE?	COMPLETE?	COMPLETE?
	I can partition a number into 10's and ones to multiply (distributive law).	COMPLETE?	COMPLETE?	COMPLETE?
	I can use related facts to multiply multiples of 10 e.g. $2 \times 3 = 6$ $2 \times 30 = 60$.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can explore the effect of partitioning a number to multiply (distributive law) e.g. exploring 7×8 by splitting 7 into 2 and 5 then calculating 2×8 then 5×8 .	COMPLETE?	COMPLETE?	COMPLETE?
	I know that multiplication can be done in any order (commutative).	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1	I can multiply using concrete objects, pictorial representations arrays and repeated addition.	COMPLETE?	COMPLETE?	COMPLETE?
	I can multiply using concrete objects, pictorial representations and arrays with the support of the teacher.	COMPLETE?	COMPLETE?	COMPLETE?

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YEAR 6 (Extension)

I can solve problems using my knowledge of circle properties.

COMPLETE? COMPLETE? COMPLETE?

I can recognise vertically opposite angles and use this to calculate missing angles.

COMPLETE? COMPLETE? COMPLETE?

I can illustrate and name parts of a circle including radius, diameter and circumference and know that diameter is twice the radius.

COMPLETE? COMPLETE? COMPLETE?

YEAR 6

I can compare and classify geometric shapes based on their size and properties and can find unknown angles in any triangle, quadrilateral or regular polygon.

COMPLETE? COMPLETE? COMPLETE?

I can recognise, describe and build simple 3D shapes including making nets.

COMPLETE? COMPLETE? COMPLETE?

I can accurately draw 2D shapes using given angles and dimensions.

COMPLETE? COMPLETE? COMPLETE?

YEAR 5

I can find missing lengths and angles in rectangles using my knowledge of related facts.

COMPLETE? COMPLETE? COMPLETE?

I can use long multiplication to multiply THTO or HTO x TO.

COMPLETE? COMPLETE? COMPLETE?

I can use related facts to multiply multiples of 10 and 100 e.g. $2 \times 3 = 6$ $200 \times 30 = 6000$.

COMPLETE? COMPLETE? COMPLETE?

I can multiply numbers with up to 2 decimal places by a whole numbers.

COMPLETE? COMPLETE? COMPLETE?

I can multiply TO x TO using long multiplication .

COMPLETE? COMPLETE? COMPLETE?

I can multiply TO x TO using an expanded written strategy .

COMPLETE? COMPLETE? COMPLETE?

I can multiply TO x TO using diagrams, arrays and grids.

COMPLETE? COMPLETE? COMPLETE?

I can use related facts to multiply multiples of 10 and 100 e.g. $2 \times 3 = 6$, $20 \times 30 = 600$.

COMPLETE? COMPLETE? COMPLETE?

I can use a formal vertical method to multiply HTO, THHTO and whole numbers with up to 2 decimal places (e.g. money) by O.

COMPLETE? COMPLETE? COMPLETE?

YEAR 6

YEAR 5

MATHS LADDER
DIVISION

YEAR 5	I can divide numbers up to 4 digits by a 2 digit whole number using expanded long division.	COMPLETE?	COMPLETE?	COMPLETE?
	I can begin to represent a remainder as a fraction or decimal.	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve more complex problems involving division including with remainders and round the answer appropriately in context.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can divide 4 digit and three digit numbers by one digit using short division.	COMPLETE?	COMPLETE?	COMPLETE?
	I can divide 3 digit numbers using increasingly efficient written methods and using related multiplication facts.	COMPLETE?	COMPLETE?	COMPLETE?
	I can divide 2 digit numbers by increasingly efficient written methods and use related multiplication facts.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 3	I understand the effect of dividing by 1.	COMPLETE?	COMPLETE?	COMPLETE?
	I can divide 2 digit numbers by another number using the tables I know.	COMPLETE?	COMPLETE?	COMPLETE?
	I know that division of one number by another can not be done in any order.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can divide using concrete objects , pictorial representations and arrays and repeated subtraction.	COMPLETE?	COMPLETE?	COMPLETE?
	I can divide using concrete objects , pictorial representations and arrays with the support of the teacher.	COMPLETE?	COMPLETE?	COMPLETE?

MATHS LADDER
SHAPE

YEAR 6	I can calculate missing angles on a straight line (180°) or at a point (360°) or within a right angle (90°).	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify 3D shapes from 2D representations.	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify regular and irregular shapes using my knowledge of length of sides and angles.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can draw and measure given angles in degrees.	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify and compare acute, obtuse and reflex angles.	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify lines of symmetry in 2D shapes presented in different orientations.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can complete symmetrical shapes and patterns with respect to a specific line of symmetry.	COMPLETE?	COMPLETE?	COMPLETE?
	I can name, describe and sort a variety of quadrilaterals and triangles based on their properties.	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify and name acute and obtuse angles.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can compare and order angles.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recognise a 3D shape in different orientations.	COMPLETE?	COMPLETE?	COMPLETE?

YEAR 4

I can make 3D shapes using modelling materials and name and describe their properties.

COMPLETE? COMPLETE? COMPLETE?

I can draw 2D shapes and describe them using my knowledge of sides and angles.

COMPLETE? COMPLETE? COMPLETE?

I can recognise right angles in 2D shapes and say if an angle is greater or less than a right angle.

COMPLETE? COMPLETE? COMPLETE?

I can identify right angles and describe how right angles can make up $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and a whole turn.

COMPLETE? COMPLETE? COMPLETE?

I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

COMPLETE? COMPLETE? COMPLETE?

I can compare and sort common 2D and 3D shapes and everyday objects.

COMPLETE? COMPLETE? COMPLETE?

YEAR 3

I can identify 2D shapes on the surface of 3D shapes e.g. a circle on a cylinder.

COMPLETE? COMPLETE? COMPLETE?

I can identify, describe and sort 3D shapes by talking about the number of faces, edges and vertices.

COMPLETE? COMPLETE? COMPLETE?

I can identify, describe and sort 2D shapes by naming them, talking about the number of sides and showing a vertical line of symmetry.

COMPLETE? COMPLETE? COMPLETE?

YEAR 1

I can recognise and name common 3D shapes (cuboid, cube, pyramid, sphere).

COMPLETE? COMPLETE? COMPLETE?

I can recognise and name common 2D shapes (rectangle, circle, square, triangle).

COMPLETE? COMPLETE? COMPLETE?

YEAR 6

I can divide numbers up to 4 digits by a 2 digit whole number using long division.

COMPLETE? COMPLETE? COMPLETE?

I can express a quotient as a fraction, decimal or rounded according to context.

COMPLETE? COMPLETE? COMPLETE?

YEAR 3

I can recognise and show using diagrams, simple equivalent fractions.

COMPLETE? COMPLETE? COMPLETE?

I can compare and order unit fractions with the support of fraction boards and number lines.

COMPLETE? COMPLETE? COMPLETE?

I can add and subtract fractions with the same denominator and recognise a whole as a fraction e.g. $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$.

COMPLETE? COMPLETE? COMPLETE?

I can compare and order fractions with the same denominator.

COMPLETE? COMPLETE? COMPLETE?

I can work out fractions of amounts for common fractions e.g. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{5}$ of a set of objects.

COMPLETE? COMPLETE? COMPLETE?

I can recognise fractions of shapes (unit and non-unit).

COMPLETE? COMPLETE? COMPLETE?

I can count in halves and quarters up to 10 recognising that fractions are numbers between whole numbers.

COMPLETE? COMPLETE? COMPLETE?

YEAR 2

I can recognise the equivalence of $\frac{2}{4}$ to $\frac{1}{2}$.

COMPLETE? COMPLETE? COMPLETE?

I can recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.

COMPLETE? COMPLETE? COMPLETE?

YEAR 1

I can recognise, find and name a quarter of an object, shape or quantity.

COMPLETE? COMPLETE? COMPLETE?

I can recognise, find and name a half of an object, shape or quantity.

COMPLETE? COMPLETE? COMPLETE?

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YEAR 6
(extension)

I can calculate the probability of an independent event.

COMPLETE? COMPLETE? COMPLETE?

YEAR 5

I can use common multiples to express fractions in the same denomination.

COMPLETE? COMPLETE? COMPLETE?

I can simplify fractions using common factors.

COMPLETE? COMPLETE? COMPLETE?

I can multiply proper fractions and mixed numbers by a whole number using diagrams and concrete apparatus.

COMPLETE? COMPLETE? COMPLETE?

I can add and subtract fractions with denominators in the same fraction family.

COMPLETE? COMPLETE? COMPLETE?

I can compare and order fractions where denominators are in the same fraction family.

COMPLETE? COMPLETE? COMPLETE?

I can add and subtract fractions with the same denominators including recognising and converting improper fractions to mixed numbers.

COMPLETE? COMPLETE? COMPLETE?

I can recognise and convert improper fractions to mixed numbers.

COMPLETE? COMPLETE? COMPLETE?

I can recognise and work out non-unit fractions of shapes, lengths and sets of objects. e.g. $\frac{3}{4}$ of a metre, or $\frac{2}{5}$ of a bar of chocolate made of 20 pieces.

COMPLETE? COMPLETE? COMPLETE?

I can recognise and work out unit fractions of shapes, lengths and sets of objects e.g. $\frac{1}{8}$ of a bar of chocolate made of 40 pieces.

COMPLETE? COMPLETE? COMPLETE?

I can recognise and show equivalent fractions in a family of fractions.

COMPLETE? COMPLETE? COMPLETE?

I can add and subtract fractions where the denominator is the same beyond a whole.

COMPLETE? COMPLETE? COMPLETE?

YEAR 4

YEAR 6 (extension)

YEAR 6

I can multiply more complex pairs of proper fractions e.g. $\frac{3}{5} \times \frac{4}{7}$.		
COMPLETE?	COMPLETE?	COMPLETE?
I can recognise and explore the relationship between multiplying by a whole number and dividing by its reciprocal.		
COMPLETE?	COMPLETE?	COMPLETE?
I can divide proper fractions by a whole number e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$.		
COMPLETE?	COMPLETE?	COMPLETE?
I can multiply simple pairs of proper fractions and write the answer in its simplest form e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$.		
COMPLETE?	COMPLETE?	COMPLETE?
I can add and subtract fractions and mixed numbers with different denominators using the idea of equivalence.		
COMPLETE?	COMPLETE?	COMPLETE?
I can compare and order any set of fractions, proper, improper or mixed numbers including those with different denominators.		
COMPLETE?	COMPLETE?	COMPLETE?

YEAR 6

YEAR 5

I can read and interpret linear proportional graphs (e.g. speed).		
COMPLETE?	COMPLETE?	COMPLETE?
I can calculate the mean as an average and understand when it is appropriate to find the mean of a set of data.		
COMPLETE?	COMPLETE?	COMPLETE?
I can solve problems using the data from line graphs (including conversion graphs) and pie charts including ones I have constructed myself.		
COMPLETE?	COMPLETE?	COMPLETE?
I can construct a pie chart.		
COMPLETE?	COMPLETE?	COMPLETE?
I can interpret a pie chart.		
COMPLETE?	COMPLETE?	COMPLETE?
I can decide which representations of data are most appropriate and explain why.		
COMPLETE?	COMPLETE?	COMPLETE?
I can complete, read and interpret information presented in tables and other graphical representations.		
COMPLETE?	COMPLETE?	COMPLETE?
I can solve comparison, sum and difference problems using information presented in line graphs.		
COMPLETE?	COMPLETE?	COMPLETE?
I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		
COMPLETE?	COMPLETE?	COMPLETE?
I can present continuous data in the form of time (line) graphs recognising that it is recording a change over time.		
COMPLETE?	COMPLETE?	COMPLETE?
I can interpret continuous data in the form of time (line) graphs recognising that it is recording a change over time.		
COMPLETE?	COMPLETE?	COMPLETE?

YEAR 4	I can present discrete data using appropriate graphical methods.	COMPLETE?	COMPLETE?	COMPLETE?
	I can interpret data presented in a range of graphical representations with a greater range of scales.	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve 2 step problems using the information presented in charts and graphs e.g. how many more/fewer?	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 3	I can solve one step problems using the information presented in charts and graphs.	COMPLETE?	COMPLETE?	COMPLETE?
	I can present data in charts and graphs including using a scale of 2, 5 and 10.	COMPLETE?	COMPLETE?	COMPLETE?
	I can interpret data in charts and graphs including reading a scale of 2, 5 and 10.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can answer questions by comparing information in simple bar charts e.g. Which has the most? How much altogether?	COMPLETE?	COMPLETE?	COMPLETE?
	I can interpret and construct simple pictograms and block diagrams.	COMPLETE?	COMPLETE?	COMPLETE?
	I can interpret and construct simple tally charts and tables.	COMPLETE?	COMPLETE?	COMPLETE?
	I can answer simple questions about quantities from looking at pictograms and block charts (scale of 1 or 2).	COMPLETE?	COMPLETE?	COMPLETE?
	I can answer simple questions about quantities from looking at tally charts and simple tables.	COMPLETE?	COMPLETE?	COMPLETE?

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YEAR 5

I can round decimals with 2 decimal places to the nearest whole number and to one decimal place.

COMPLETE? COMPLETE? COMPLETE?

I can compare and order whole numbers and decimals with up to 2 decimal places.

COMPLETE? COMPLETE? COMPLETE?

I can compare and order decimals with the same number of decimal places up to 2 decimal places.

COMPLETE? COMPLETE? COMPLETE?

I can find the effect of dividing one and two digit numbers by 10 and 100 and identify the value of the digits in the answer as ones (units), tenths and hundredths.

COMPLETE? COMPLETE? COMPLETE?

I can recognise and write the decimal equivalent of tenths, hundredths and common fractions ($\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$) in a variety of contexts e.g. money and measures.

COMPLETE? COMPLETE? COMPLETE?

YEAR 4

I can write the decimal equivalent of tenths and hundredths and recognise them in the context of money.

COMPLETE? COMPLETE? COMPLETE?

I can recognise a hundredth as a whole divided into 100 equal parts and as 10 parts of a tenth.

COMPLETE? COMPLETE? COMPLETE?

I can round a decimal with one decimal place to a whole number.

COMPLETE? COMPLETE? COMPLETE?

I can count in tenths and decimal tenths recognising them as numbers between whole numbers.

COMPLETE? COMPLETE? COMPLETE?

YEAR 3

I can recognise and write the decimal equivalent of a tenth using a place value board e.g. $\frac{1}{10} = 0.1$.

COMPLETE? COMPLETE? COMPLETE?

I can count in tenths and understand a tenth as part of a whole divided into 10 equal parts.

COMPLETE? COMPLETE? COMPLETE?

YEAR 6
(extension)

I can calculate area and perimeter of compound shapes including parallelograms and triangles.

COMPLETE? COMPLETE? COMPLETE?

I can recognise when it is possible to use formulae to calculate area.

COMPLETE? COMPLETE? COMPLETE?

MATHS LADDER
PERIMETER AND AREA

YEAR 6	I can calculate the area of parallelograms and triangles.	COMPLETE?	COMPLETE?	COMPLETE?
	I can investigate relationships between area and perimeter e.g. shapes with the same area can have different perimeters and vice versa.	COMPLETE?	COMPLETE?	COMPLETE?
	I can find unknown lengths on rectilinear shapes using my understanding of perimeter and area.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 5	I can calculate and compare the area of rectangles using cm^2 and m^2 including from scale drawings.	COMPLETE?	COMPLETE?	COMPLETE?
	I can estimate the area of irregular shapes.	COMPLETE?	COMPLETE?	COMPLETE?
	I can measure and calculate the area of shapes that need to be divided into rectangles (composite rectilinear shapes) in cm^2 and m^2 .	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can measure and calculate the perimeter of shapes that need to be divided into rectangles (composite rectilinear shapes) in cm and m.	COMPLETE?	COMPLETE?	COMPLETE?
	I can calculate the area of rectangles using multiplication.	COMPLETE?	COMPLETE?	COMPLETE?
	I can find the area of rectangles by counting squares.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 3	I can calculate the perimeter of rectangles including squares.	COMPLETE?	COMPLETE?	COMPLETE?
	I can measure the perimeter of simple 2D shapes.	COMPLETE?	COMPLETE?	COMPLETE?

MATHS LADDER
DECIMALS

YEAR 6 (extension)	When using a calculator to solve problems, I can round the answer appropriately in context.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recognise what degree of accuracy is appropriate when rounding decimals.	COMPLETE?	COMPLETE?	COMPLETE?
	I can round answers with a specific degree of accuracy (where this has been specified).	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 6	I can calculate more complex decimal equivalents such as $\frac{3}{8} = 0.375$ using my understanding of the equivalence between fractions and decimals.	COMPLETE?	COMPLETE?	COMPLETE?
	I can associate a fraction with division and calculate decimal equivalents of common fractions such as halves, quarters and fifths.	COMPLETE?	COMPLETE?	COMPLETE?
	I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 6	I can read, write order and compare numbers that have a mixture of 1, 2 or 3 decimal places.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.	COMPLETE?	COMPLETE?	COMPLETE?

YEAR 6 (Extension)

I can solve more complex problems using a unitary method (i.e. scaling down to 1% and then up again).

COMPLETE? COMPLETE? COMPLETE?

I can link % to calculating simple angles in a pie chart (e.g. recognise that 50% is 180°).

COMPLETE? COMPLETE? COMPLETE?

I can solve more complex % problems in context such as % deduction.

COMPLETE? COMPLETE? COMPLETE?

I can divide a quantity in a given ratio (recognising the proportion as a fraction of the whole).

COMPLETE? COMPLETE? COMPLETE?

I can identify that a problem can be written as a ratio and solve problems using this relationship.

COMPLETE? COMPLETE? COMPLETE?

YEAR 6

I can solve problems involving similar shapes where the scale factor is known or can be found.

COMPLETE? COMPLETE? COMPLETE?

I can solve % problems in a variety of contexts such as comparing % (e.g. best buys).

COMPLETE? COMPLETE? COMPLETE?

I can recall and use equivalence between fractions, decimals and % to solve problems e.g. 10% of £5.00 or 50% of the team.

COMPLETE? COMPLETE? COMPLETE?

YEAR 5

I can recognise and understand % as part of 100 and write a % as a fraction and a decimal.

COMPLETE? COMPLETE? COMPLETE?

YEAR 5

I can solve problems involving time including reading simple timetables.

COMPLETE? COMPLETE? COMPLETE?

I can solve problems which involve converting between units of time e.g. expressing the answer as days and weeks.

COMPLETE? COMPLETE? COMPLETE?

I can convert hours to minutes, minutes to seconds, years to months or weeks to days.

COMPLETE? COMPLETE? COMPLETE?

YEAR 4

I can solve problems involving calculating lengths of time.

COMPLETE? COMPLETE? COMPLETE?

I can read, write and convert time between analogue and digital 12 and 24 hour clocks.

COMPLETE? COMPLETE? COMPLETE?

I can read the time on a 24 hour digital clock.

COMPLETE? COMPLETE? COMPLETE?

I can read the time on a digital clock (12 hour) and compare to an analogue clock.

COMPLETE? COMPLETE? COMPLETE?

I can calculate and compare time durations.

COMPLETE? COMPLETE? COMPLETE?

I can read and write the time to the nearest minute on an analogue clock.

COMPLETE? COMPLETE? COMPLETE?

YEAR 3	I can record time in seconds, minutes and hours and can compare lengths of time (e.g. which is longer).	COMPLETE?	COMPLETE?	COMPLETE?
	I understand and use vocabulary such as o'clock, am, pm, noon and midnight.	COMPLETE?	COMPLETE?	COMPLETE?
	I can use the vocabulary of time and know the number of seconds in a minute, days in each month, year and leap year.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can tell and write the time to 5 minutes and draw the hands on a clock face to show these times.	COMPLETE?	COMPLETE?	COMPLETE?
	I can read and write the time on an analogue clock for quarter past and quarter to.	COMPLETE?	COMPLETE?	COMPLETE?
	I can compare and sequence intervals of time.	COMPLETE?	COMPLETE?	COMPLETE?
	I know how many hours there are in a day and how many minutes in an hour.	COMPLETE?	COMPLETE?	COMPLETE?
	I can read and write the time on an analogue clock for o'clock and half past.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1	I can compare, describe, measure and record time (hours, minutes, seconds) and use the language quicker, slower, earlier, later.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recognise and use language relating to dates including days of the week, months and the term 'year'.	COMPLETE?	COMPLETE?	COMPLETE?
	I can sequence events in chronological order using before, after, today, tomorrow etc.	COMPLETE?	COMPLETE?	COMPLETE?

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YEAR 3	I can solve 1 step word problems involving addition and subtraction (including numbers beyond 100).	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve missing number problems for addition, subtraction, multiplication and division with numbers up to 100 using my knowledge of number facts and the relationship between operations.	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve money problems involving addition and finding the change (both £ and pence).	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can solve simple money problems involving addition and finding the change (£ or pence).	COMPLETE?	COMPLETE?	COMPLETE?
	I can use place value and number facts to solve problems.	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve multiplication and division problems using pictures and diagrams.	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve simple word problems involving addition and subtraction with numbers up to 50.	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve missing number problems for addition and subtraction with numbers up to 20.	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve practical problems in the context of measure e.g. length, weight, capacity and time.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1	I can solve multiplication and division 1 step word problems using concrete apparatus (2,5 and 10 x tables only).	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve addition and subtraction 1 step word problems using concrete apparatus	COMPLETE?	COMPLETE?	COMPLETE?

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YEAR 6 (Extension)

I can understand compound units for speed and use them in context e.g. science experiments.

COMPLETE? COMPLETE? COMPLETE?

I can convert between miles and km.

COMPLETE? COMPLETE? COMPLETE?

I can recognise when it is possible to use formulae to calculate volume.

COMPLETE? COMPLETE? COMPLETE?

YEAR 6

I can calculate, estimate and compare volume of cubes and cuboids using standard units e.g. cm^3 .

COMPLETE? COMPLETE? COMPLETE?

I can solve problems involving the calculation and conversion of units of measure using decimal notation up to three decimal places.

COMPLETE? COMPLETE? COMPLETE?

I can use, read, write and convert between standard units of measure using decimal notation up to 3 decimal places.

COMPLETE? COMPLETE? COMPLETE?

YEAR 5

I can understand and use approximate equivalences between metric units and common imperial units (inches, pounds, pints).

COMPLETE? COMPLETE? COMPLETE?

I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.

COMPLETE? COMPLETE? COMPLETE?

I can solve more complex correspondence problems, choosing how to tackle and present the problem clearly (e.g. 'share 3 cakes equally between 10 children' or '3 starters, 3 mains, 3 desserts how many different meal options?').

COMPLETE? COMPLETE? COMPLETE?

I can solve more complex scaling problems (e.g. 8 times as high).

COMPLETE? COMPLETE? COMPLETE?

I can solve 2 step word problems involving all 4 operations, deciding which operations to use and when.

COMPLETE? COMPLETE? COMPLETE?

I can solve 2 step word problems involving addition and subtraction, deciding which operations to use and when.

COMPLETE? COMPLETE? COMPLETE?

I can estimate answers and use inverse operations to check answers to a calculation in the context of a problem.

COMPLETE? COMPLETE? COMPLETE?

I can solve missing number problems with increasingly large numbers using my knowledge of place value and relationships between operations.

COMPLETE? COMPLETE? COMPLETE?

I can solve simple scaling problems (e.g. twice as long).

COMPLETE? COMPLETE? COMPLETE?

I can estimate an answer to an addition or subtraction problem and use the inverse to check an answer.

COMPLETE? COMPLETE? COMPLETE?

I can solve simple correspondence problems (e.g. 'share 4 cakes equally between 8 children' or '4 hats, 3 coats, how many different outfits?').

COMPLETE? COMPLETE? COMPLETE?

I can solve 1 step word problems involving multiplication and division.

COMPLETE? COMPLETE? COMPLETE?

YEAR 4

MATHS LADDER
PROBLEM SOLVING

YEAR 6

I can express missing number problems algebraically.

COMPLETE? COMPLETE? COMPLETE?

I can solve multi-step word problems and investigations involving all 4 operations from a large range of contexts.

COMPLETE? COMPLETE? COMPLETE?

I can round and estimate as a means of predicting and checking the order of magnitude of my answers to a decimal calculation.

COMPLETE? COMPLETE? COMPLETE?

I consistently check the reasonableness of my answer in all calculations.

COMPLETE? COMPLETE? COMPLETE?

I can solve addition and subtraction multi-step problems in context, with increasingly large numbers, deciding which operations to use and why.

COMPLETE? COMPLETE? COMPLETE?

I can investigate a problem involving place value and properties of number and present my investigation in a clear and organised way.

COMPLETE? COMPLETE? COMPLETE?

I can use all 4 operations to solve equivalence statements (e.g. $5x = 18 + 12$).

COMPLETE? COMPLETE? COMPLETE?

I can solve multi step problems involving a combination of any of the 4 operations.

COMPLETE? COMPLETE? COMPLETE?

I can solve problems involving multiplication and division including scaling by simple fractions.

COMPLETE? COMPLETE? COMPLETE?

I can solve division problems interpreting remainders in context and adjusting the answer appropriately.

COMPLETE? COMPLETE? COMPLETE?

I can solve addition and subtraction multi-step problems in context, deciding which operations to use and why.

COMPLETE? COMPLETE? COMPLETE?

YEAR 5

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MATHS LADDER
MEASURES

YEAR 5

I can estimate volume and capacity and explore these concepts using practical materials.

COMPLETE? COMPLETE? COMPLETE?

I can use all 4 operations to solve problems involving length, mass, capacity and scaling.

COMPLETE? COMPLETE? COMPLETE?

I can convert between different units of measure using my understanding of \times and \div by 10, 100 and 1000.

COMPLETE? COMPLETE? COMPLETE?

I can estimate, compare and calculate measures in a variety of contexts.

COMPLETE? COMPLETE? COMPLETE?

I can convert between units of measure using multiplication and division and where appropriate record with decimal notation.

COMPLETE? COMPLETE? COMPLETE?

I can convert between units of measure with the support of measuring instruments and where appropriate record with decimal notation.

COMPLETE? COMPLETE? COMPLETE?

I can use both £ and p in context and recognise equivalence e.g. $306p = \pounds 3.06$.

COMPLETE? COMPLETE? COMPLETE?

I can read measures in mixed units and can convert simple whole units of measure e.g. $5m = 500\text{ cm}$.

COMPLETE? COMPLETE? COMPLETE?

I can solve problems involving measures including simple problems of scale e.g. twice as high.

COMPLETE? COMPLETE? COMPLETE?

I can add and subtract amounts of money to give change, using both £ and p in practical contexts.

COMPLETE? COMPLETE? COMPLETE?

I can compare, add and subtract measures.

COMPLETE? COMPLETE? COMPLETE?

YEAR 4

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YEAR 3	I can read measuring instruments with increasing accuracy.	COMPLETE?	COMPLETE?	COMPLETE?
	I can compare and order measures and record using $<$, $>$ and $=$.	COMPLETE?	COMPLETE?	COMPLETE?
	I can find different combinations of coins that equal the same amounts.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 2	I can combine amounts to make a particular value e.g. make 3p using a 2p and 1p.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recognise and use symbols for £ and p.	COMPLETE?	COMPLETE?	COMPLETE?
	I can choose appropriate units of measure to estimate length, height, mass and capacity.	COMPLETE?	COMPLETE?	COMPLETE?
	I can measure using appropriate equipment e.g. ruler, weighing scales, measuring jug.	COMPLETE?	COMPLETE?	COMPLETE?
	I recognise and know the value of different denominations of coins and notes.	COMPLETE?	COMPLETE?	COMPLETE?
	I can compare, describe, measure and record weight and mass.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 1	I can compare, describe, measure and record capacity and volume.	COMPLETE?	COMPLETE?	COMPLETE?
	I can compare, describe, measure and record length and height.	COMPLETE?	COMPLETE?	COMPLETE?

YEAR 6 (Extension)	I can solve real life and financial problems e.g. comparing holiday packages or working out household bills.	COMPLETE?	COMPLETE?	COMPLETE?
	I can solve a variety of number problems using formulae and algebraic equations.	COMPLETE?	COMPLETE?	COMPLETE?
	I can find pairs of numbers that satisfy an equation with two unknowns.	COMPLETE?	COMPLETE?	COMPLETE?

MATHS LADDER
PROPERTIES OF NUMBER

YEAR 5	I can explore the order of operations using brackets.	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify common factors, common multiples and prime numbers with increasingly large numbers.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recognise squared and cubed numbers and use the correct notation.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recognise and describe linear number sequences including those involving fractions and decimals and find the term to term rule e.g. add half.	COMPLETE?	COMPLETE?	COMPLETE?
	I can work out if a number up to 100 is a prime number and have quick recall of all the prime numbers to 19.	COMPLETE?	COMPLETE?	COMPLETE?
	I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify multiples and factors including finding all factor pairs of a number and common factors of two numbers.	COMPLETE?	COMPLETE?	COMPLETE?
	I can use the = sign to write equality statements for addition, subtraction and multiplication.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recognise patterns across all the multiplication tables.	COMPLETE?	COMPLETE?	COMPLETE?
	I can recognise factor pairs of a number and multiples of single digit numbers.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 4	I can recognise patterns in some multiplication tables (2, 5, 10, 4 and 8).	COMPLETE?	COMPLETE?	COMPLETE?
		COMPLETE?	COMPLETE?	COMPLETE?
YEAR 3		COMPLETE?	COMPLETE?	COMPLETE?
		COMPLETE?	COMPLETE?	COMPLETE?

MATHS LADDER
PROPERTIES OF NUMBER

YEAR 6 (extension)	I can identify the region for solutions of square roots (not square numbers) and use this as a starting point for trial and improvement.	COMPLETE?	COMPLETE?	COMPLETE?
	I can identify square roots and cube roots which give integer solutions (whole number answers).	COMPLETE?	COMPLETE?	COMPLETE?
	I can make generalisations about number patterns and express them algebraically.	COMPLETE?	COMPLETE?	COMPLETE?
YEAR 6	I can generate and describe linear number sequences.	COMPLETE?	COMPLETE?	COMPLETE?
		COMPLETE?	COMPLETE?	COMPLETE?