

Place Value					
Pathfinders (Discoverers Class)		Adventurers		Navigators	
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number read and write numbers from 1 to 20 in numerals and words	Represent numbers to 100 Tens and ones with a part whole model Tens and ones using addition	Use a place value chart Represent numbers to 1,000 100s, 10s and 1s (1) 100s, 10s and 1s (2) Number line to 1,000	1,000s, 100s, 10s and 1s Partitioning Number line to 10,000	Number to 100,000 Numbers to a million	
count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s	Count in 2s, 5s and 10s Count in 3s	Count from 0 in multiples of 4, 8, 50 and 100	Count in multiples of 6, 7, 9, 25 and 1,000	Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.	
given a number, identify 1 more and 1 less	Find ten more or less than a given number	Find 1, 10, 100 more or less than a given number	1,000 more or less		
identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least	Compare and order numbers from 0 up to 100; use < , > and = signs	Compare and order numbers up to 1,000	Order and compare numbers beyond 1,000	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 up to 10,000,000 and determine the value of each digit
			Round to the nearest 10 Round to the nearest 100 Round to the nearest 1,000	Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 10,000	Round any whole number to a required degree of accuracy
			Roman Numerals to 100	Read Roman Numerals to 1,000 (M) and recognise years written in Roman Numerals	
			Count backwards through zero to include negative numbers.	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero.	Use negative numbers in context and calculate intervals across zero.

Addition and Subtraction					
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Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Read, write and interpret maths statements + - = signs	Recall and use addition and subtraction facts to 20. Use related facts to a 100	Mental addition of 3-digit number + 1, +10, +100	Addition of 4-digit number + 1, +10, +100	With more than 4-digits	
Represent and use number bonds and related subtraction facts within 20	Solve problems with addition and subtraction. Use concrete resources, written and mental methods.	Formal written method	Formal written methods	Formal written methods	
Add and subtract 2 and 2 digit numbers to 20	Add and subtract: 2 digit & ones 2 digit & tens Two 2 digit nos Adding three 1-digit no's Addition any order. Subtraction cannot-use to check calculations and missing numbers	Estimating answers using inverse calcs	Estimating answers using inverse calcs	Estimating and rounding	

Multiplication and Division					
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Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Recall and use M & D facts 2,5,10	Recall and use M facts for 3, 4 and 8	M facts up to 12x12	Factor pairs Multiples Common factors of two numbers	M-ing D-ing up to 4-digit by 2- digit
		M 2-digit x 1-digit Formal written methods	Using place value facts to x by 0 and 1	Prime numbers Prime factors Composite numbers	Mental calc inc mixed operations
		Solve missing number problems	Multiplying three numbers together	M 4-digit x 1-digit and 2- digit numbers Formal written methods	Common factors, common multiples and prime numbers
	Calculate M and D using $x =$		Recognise factor pairs & commutativity in mental calcs	M and D numbers mentally using known facts	Order of operations inc brackets
Solve problems using M and D –concrete resources, repeated addition, arrays. With support	Solve problems using M and D –concrete resources, repeated addition, arrays		M 2-digit and 3-digit by a 1-digit number Including use of the distributive law	D 4-digit by 1-digit Formal written methods Interpret remainders	Use estimation to check answers – determine appropriate accuracy
			Integer scaling probs & probs n objects connected to m objects.	M and D whole numbers and decimals by 10, 100 and 1000	
				Square and cube numbers + notation	

Fractions, decimals, percentages, ratio and proportion					
Pathfinders (Discoverers Class)		Adventurers		Navigators	
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>$\frac{1}{2}$ as two equal parts</p> <p>$\frac{1}{4}$ as four equal parts of as shape, quantity</p>	<p>$\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of as lengths, shape, quantity Calculate $\frac{1}{2}$ of 6 and recognise $\frac{2}{4} = \frac{1}{2}$</p>	<p>Calculate 'small' fractions of amounts Count in tenths</p> <p>See fractions as numbers (number line?) Recognise equivalence of small fractions</p> <p>Add fraction with a common denominator</p> <p>Compare and order unit fractions</p>	<p>Calculate with harder fractions of amounts Count up and down in hundredths</p> <p>$\frac{1}{10}\text{ths} \div 10 = \frac{1}{100}\text{ths}$ Families of equivalent fractions and (later) decimals</p> <p>Add and subtract fractions with same denominator</p> <p>Recognise decimal equivalents of $\frac{1}{10}\text{ths}$ and $\frac{1}{100}\text{ths}$</p> <p>Divide 1-digit and 2-digit numbers by $\frac{1}{10}\text{ths}$ and $\frac{1}{100}\text{ths}$</p> <p>Round decimals with 1- dp to nearest whole number</p> <p>Compare numbers to 2- dps</p> <p>Measures and money problems with fractions and up to decimals to 2- dps</p>	<p>Compare and order fractions</p> <p>Equivalent fractions of a given fraction including $\frac{1}{10}\text{ths}$ and $\frac{1}{100}\text{ths}$</p> <p>Add and subtract fractions with same denominator and where numerator > denominator</p> <p>Recognise $0.71 = \frac{71}{100}$ and develop decimal equivalents to $\frac{1}{1000}\text{ths}$</p> <p>Round numbers with 2- dps to nearest whole number and to 1dp</p> <p>Compare numbers to 3- dps.</p> <p>Multiply fractions by whole numbers e.g. $(\frac{2}{5} \times 3 = \frac{6}{5})$</p> <p>Recognise the % symbol and write percentages as fractions and decimals</p> <p>Solve percentage problems involving halves, quarters and fifths</p>	<p>... including fractions > 1</p> <p>Simplify fractions using common factors</p> <p>Add and subtract fractions with different denominators including 'mixed' numbers</p> <p>Multiply and divide numbers by 10, 100, 1000 and give answers to 3- dps</p> <p>Divide fractions by whole numbers</p> <p>Multiply fractions</p> <p>Connect fractions with division and convert fractions to decimals and v-versa</p> <p>Multiply numbers up to 2-dps by whole numbers</p> <p>Know equivalences between F, D, Ps (%)</p>

Measurement					
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Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Comparing/describing Lengths: long/short, tall/short, double/half Weights: heavy/light</p> <p>Volume: full/empty, half full, quarter Time: quicker/slower, earlier/later</p> <p>Measure and record L/H, M/W, C/V, H/M/Secs</p> <p>Know about coins and notes Sequence events (before/after, today/tomorrow etc)</p> <p>Develop language of time: D/W/M/Years Show time to hour and half hour</p>	<p>Use standard units (m/cm, kg/g, l/ml) Use symbols (£, p) to combine amounts</p> <p>Addition and subtraction of money Compare and order lengths, mass, volume using <, >, = Compare and sequence time. Tell time to 5 mins inc 1/4 past and 1/4 to Know number of minutes in an hour and hours in a day</p>	<p>Measure perimeter of simple 2D shapes Compare, add and subtract lengths, money Tell time (analogue) with Roman numerals also using 12 and 24 hour clocks Estimate and read time to nearest minute; use vocab of am/pm, noon, etc Know 60 secs in 1 minute and days in each month Compare duration of events</p>	<p>Convert between different units of measure e.g. km to m hours to minutes Measure and calculate perimeters of rectangles in cm and m and count squares to find area Estimate and compare money in £ and p</p>	<p>Convert between km→m, m→cm, cm→mm, g→kg and l→ml Equivalences between inches/cm, lbs/kg, pints/litres Ditto + units of area cm², m² Estimate areas on non-rectilinear shapes Estimate volume in cm³ Convert between units of time Use: +, -, x and ÷ to solve problems of various measures involving decimals</p>	<p>Ditto, using decimal notation up to 3-dps Miles to km (1 to 1.6) and vice-versa (1km to 0.625 miles) Recognise shapes with the same areas can have different perimeters and measurements Use formulae for area and volume of cuboids Calculate areas of parallelograms and triangles</p>

Geometry- properties of Shapes

Pathfinders (Discoverers Class)		Adventurers		Navigators	
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Recognise and name common 2-D and 3-D shapes	Describe 2-D shapes (number of sides, line symmetry) Describe 3-D shapes (edges vertices and faces)	Draw 2-D and make 3-D shapes		Identify 3-D shapes from a 2-D representation	Draw 2-D shapes with given dimensions and angles Build 3-D shapes and make nets
	Identify 2-D shapes on 3-D shapes (e.g. circles on a cylinder)		Compare and classify quadrilaterals and triangles	Distinguish between regular and irregular polygons (= sides and = angles)	Compare and classify and find unknown angles in Ts, Qs and regular polygons.
	Compare and sort 2-D and 3-D shapes		Identify lines of symmetry in 2-D shapes Complete symmetric shapes with a given line of symmetry		
					Name parts of a circle inc r, d, C and that $d = 2r$

Geometry- position and movement					
Pathfinders (Discoverers Class)		Adventurers		Navigators	
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Describe position, direction and movement inc. Whole $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$ turns	Ditto + describing turns as rotation through right angles inc clockwise and anticlockwise Order and arrange objects in patterns and sequences	Recognise angle as a description of turn Identify angles as $<$ or $>$ than a right angle Identify H and V lines + perpendicular and parallel lines	Describe position of a shape using co-ords. Plot points and complete a polygon Translation of simple shapes	Know angles are measured in degrees, draw and measure angles estimate and compare acute, obtuse and reflex Whole turn = 360° etc Find missing angles in 2- D shapes Draw a shape one it has been reflected on a grid	Know about angles on a straight line and vertically opposite angles Find missing angles in 2- D shapes



Statistics					
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Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Draw and interpret pictograms, tally charts, block diagrams and tables	Ditto + bar charts	Ditto with discrete data (e.g. counting objects) and continuous data (e.g. measuring time, length etc)	Read and interpret timetables	
	Count and sort objects	Solve one-step and two- step questions using information from bar charts, pictograms and tables	Compare, sum and difference problems using info in bar charts, pictograms, tables and graphs	Ditto but using line graphs	Construct and interpret pie charts and line graphs to solve problems Calculate and interpret the mean average

