iTRACK Primary
Tracking pupil progress

Number & Place Value

Year 1		
	count from 0 to and across 100, forward and backwards, beginning with 0 or 1, and from any given number	
	count, read and write numbers to 100 in numerals, count in different multiples including ones, twos, fives and tens	
	given a number, identify one more and one less	
	identify using objects and pictorial representations and use the vocabulary of: equal to; more than; less than (fewer); most; least	
	read and write numbers from 1 to 20 in numerals and words	

Comm	Dev	Achieved	

Year 2		
	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward	
	recognise the place value of each digit in a two-digit number (tens, ones)	
	identify, represent and estimate numbers using different representations, including the number line	
	compare and order numbers from 0 up to 100; use <, > and = signs	
	read and write numbers to at least 100 in numerals and in words	
	use place value and number facts to solve problems.	

Comm	Dev	Achieved	

Year 3		
	count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number	
	recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)	
	compare and order numbers up to 1,000	
	identify, represent and estimate numbers using different representations	
	read and write numbers up to 1,000 in numerals and in words	
	solve number problems and practical problems involving these ideas	

Comm	Dev	Achieved	

Year 4		
	count in multiples of 6, 7, 9, 25 and 1,000	
	find 1,000 more or less than a given number	
	count backwards through 0 to include negative numbers	
	recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)	
	order and compare numbers beyond 1,000	
	identify, represent and estimate numbers using different representations	
	round any number to the nearest 10, 100 or 1,000	
	solve number and practical problems that involve all of the above and with increasingly large positive numbers	
	read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value	

Comm	Dev	Achieved	

	read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit	
	count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000	

Year 5	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	
	round any number up to 1,000,000 to the nearest 10; 100; 1000; 10,000 and 100,000	
	solve number problems and practical problems that involve all of the above	
	read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	

Comm	Dev	Achieved		

Year 6	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	
	round any whole number to a required degree of accuracy	
	use negative numbers in context, and calculate intervals across zero	
	solve number and practical problems that involve all of the above.	

Comm	Dev	Achieved		

Key Stage 3	
comm	dev

iTRACK Primary

Addition & Subtraction

Year 1	read, write and interpret mathematical statements involving addition (+), subtraction (?) and equals (=) signs	
	represent and use number bonds and related subtraction facts within 20	
	add and subtract one-digit and two-digit numbers to 20, including zero	
	solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? 9.	
Comm	**Dev**	**Achieved**	
Year 2	solve problems with addition and subtraction:	
	using concrete objects and pictorial representations, including those involving numbers, quantities and measures	
	applying their increasing knowledge of mental and written methods	
	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100	
	add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones ; a two-digit number and tens ;two two-digit numbers; adding three one-digit numbers	
	show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot	
	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	
Comm	**Dev**	**Achieved**	
Year 3	add and subtract numbers mentally, including: a three-digit number and 1s; a three-digit number and 10s; a three-digit number and 100s	
	add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction	
	estimate the answer to a calculation and use inverse operations to check answers	
	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	
Comm	**Dev**	**Achieved**	
Year 4	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	
	estimate and use inverse operations to check answers to a calculation	
	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	
Comm	**Dev**	**Achieved**	
Year 5	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	
	add and subtract numbers mentally with increasingly large numbers	
	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	
Comm	**Dev**	**Achieved**	

Key Stage 3	
comm	dev

Multiplication & Division

Year 1	solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.				

Comm	Dev	Achieved		

Year 2	recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers				
	calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (?), division (?) and equals (=) signs				
	show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot				
	solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.				

Comm	Dev	Achieved		

Year 3	recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables				
	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods				
	solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.				

Comm	Dev	Achieved		

Year 4	recall multiplication and division facts for multiplication tables up to 12 ? 12				
	use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers				
	recognise and use factor pairs and commutativity in mental calculations				
	multiply two-digit and three-digit numbers by a one-digit number using formal written layout				
	solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.				

Comm	Dev	Achieved		

Year 5	identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers				
	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers				
	establish whether a number up to 100 is prime and recall prime numbers up to 19				
	multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers				
	multiply and divide numbers mentally drawing upon known facts				
	divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context				
	multiply and divide whole numbers and those involving decimals by 10, 100 and 1000				
	recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)				

	solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes			
	solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign			
	solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.			

Comm	Dev	Achieved		

Year 6	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	
	divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context	
	divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context	
	perform mental calculations, including with mixed operations and large numbers	
	dentify common factors, common multiples and prime numbers	
	use their knowledge of the order of operations to carry out calculations involving the four operations	
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	
	solve problems involving addition, subtraction, multiplication and division	
	use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	

Comm	Dev	Achieved		

Key Stage 3	
comm	dev

Fractions

| Year 1 | recognise, find and name a half as one of two equal parts of an object, shape or quantity | |
| | recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. | |

Comm	Dev	Achieved		

| Year 2 | recognise, find, name and write fractions 1/3; 1/4; 1/2 1/4; 3/4 of a length, shape | |
| | write simple fractions and know equivalence of 2/4 and 1/2 | |

Comm	Dev	Achieved		

Year 3	count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10	
	recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	
	recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	
	recognise and show, using diagrams, equivalent fractions with small denominators	
	add and subtract fractions with the same denominator within one whole	
	compare and order unit fractions, and fractions with the same denominators	
	solve problems that involve all of the above	

Comm	Dev	Achieved		

Year 4	recognise and show, using diagrams, families of common equivalent fractions	
	count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	
	solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number	
	add and subtract fractions with the same denominator	
	recognise and write decimal equivalents of any number of tenths or hundredths	
	recognise and write decimal equivalents to 1/4; 1/2; 3/4	
	find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	
	round decimals with one decimal place to the nearest whole number	
	compare numbers with the same number of decimal places up to two decimal places	
	solve simple measure and money problems involving fractions and decimals to two decimal places.	

Comm	Dev	Achieved		

Year 5	compare and order fractions whose denominators are all multiples of the same number	
	identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	
	recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5]	
	add and subtract fractions with the same denominator and denominators that are multiples of the same number	
	multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	
	read and write decimal numbers as fractions [for example, 0.71 = 71/100]	
	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	

	round decimals with two decimal places to the nearest whole number and to one decimal place			
	read, write, order and compare numbers with up to three decimal places			
	solve problems involving number up to three decimal places			
	recognise the per cent symbol (%) and understand that per cent relates to ?number of parts per hundred?, and write percentages as a fraction with denominator 100, and as a decimal			
	solve problems which require knowing percentage and decimal equivalents of ? , ?, 1/5, 2/5, 4/5and those fractions with a denominator of a multiple of 10 or 25.			

Comm	Dev	Achieved		
Year 6	use common factors to simplify fractions; use common multiples to express fractions in the same denomination			
	compare and order fractions, including fractions > 1			
	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions			
	multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ? x ? = 1/8			
	divide proper fractions by whole numbers [for example, 1/3 ? 2 = 1/6]			
	associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]			
	identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places			
	multiply one-digit numbers with up to two decimal places by whole numbers			
	use written division methods in cases where the answer has up to two decimal places			
	solve problems which require answers to be rounded to specified degrees of accuracy			
	recall and use equivalences between simple fractions,			

Comm	Dev	Achieved		

Key Stage 3	
comm	dev

Measurement

Year 1	compare, describe and solve practical problems for: lengths and heights, mass/weight, capacity and volume, time.			
	measure and begin to record the following: lengthsand heights; mass/weight; capacity and volume; time- hours, minutes, Achievedonds			
	recognise and know the value of different denominations of coins and notes			
	sequence events in chronological order using language			
	recognise and use language relating to dates, including days of the week, weeks, months and years			
	tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.			
Comm	Dev	Achieved		
Year 2	choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (?C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels			
	compare and order lengths, mass, volume/capacity and record the results using >, < and =			
	recognise and use symbols for pounds (?) and pence (p); combine amounts to make a particular value			
	find different combinations of coins that equal the same amounts of money			
	solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change			
	compare and sequence intervals of time			
	tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times			
	know the number of minutes in an hour and the number of hours in a day.			
Comm	Dev	Achieved		
Year 3	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)			
	measure the perimeter of simple 2-D shapes			
	add and subtract amounts of money to give change, using both £ and p in practical contexts			
	tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks			
	estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of Achievedonds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight			
	know the number of Achievedonds in a minute and the number of days in each month, year and leap year			
	compare durations of events			
Comm	Dev	Achieved		
Year 4	Convert between different units of measure			
	measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres			
	find the area of rectilinear shapes by counting squares			
	estimate, compare and calculate different measures, including money in pounds and pence			
	read, write and convert time between analogue and digital 12- and 24-hour clocks			
	solve problems involving converting from hours to minutes; minutes to Achievedonds; years to months; weeks to days.			
Comm	Dev	Achieved		
	convert between different units of metric measure			

Year 5	understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints				
	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres				
	calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes				
	estimate volume and capacity				
	solve problems involving converting between units of time				
	use all four operations to solve problems involving measure using decimal notation, including scaling.				
	Comm	Dev	Achieved		
Year 6	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate				
	use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal				
	convert between miles and kilometres				
	recognise that shapes with the same areas can have different perimeters and vice versa				
	recognise when it is possible to use formulae for area and volume of shapes				
	calculate the area of parallelograms and triangles				
	calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3].				
	Comm	Dev	Achieved		

Key Stage 3	
comm	dev

iTRACK Primary

Shape & Geometry

Year 1	recognise and name common 2-D and 3-D shapes.			
	describe position, direction and movement, including whole, half, quarter and three-quarter turns.			

Comm	Dev	Achieved		
Year 2	identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line			
	identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces			
	identify 2-D shapes on the surface of 3-D shapes.			
	compare and sort common 2-D and 3-D shapes and everyday objects.			
	order and arrange combinations of mathematical objects in patterns and sequences			
	use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).			

Comm	Dev	Achieved		
Year 3	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.			
	recognise angles as a property of shape or a description of a turn.			
	identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.			
	identify horizontal and vertical lines and pairs of perpendicular and parallel lines.			

Comm	Dev	Achieved		
Year 4	compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes			
	identify acute and obtuse angles and compare and order angles up to two right angles by size			
	identify lines of symmetry in 2-D shapes presented in different orientations			
	complete a simple symmetric figure with respect to a specific line of symmetry.			
	describe positions on a 2-D grid as coordinates in the first quadrant			
	describe movements between positions as translations of a given unit to the left/right and up/down			
	plot specified points and draw sides to complete a given polygon.			

Comm	Dev	Achieved		
Year 5	identify 3-D shapes, including cubes and other cuboids, from 2-D representations			
	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles			
	draw given angles, and measure them in degrees (o)			
	identify: angles at a point and one whole turn; angles at a point on a straight line and 1/2-a-turn and other multiples of 90 degrees			
	use the properties of rectangles to deduce related facts and find missing lengths and angles			
	distinguish between regular and irregular polygons based on reasoning about equal sides and angles.			
	identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.			

Comm	Dev	Achieved		

![iTRACK Primary logo](Tracking pupil progress)

Year 6	draw 2-D shapes using given dimensions and angles	
	recognise, describe and build simple 3-D shapes, including making nets	
	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	
	illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	
	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	
	describe positions on the full coordinate grid (all four quadrants)	
	draw and translate simple shapes on the coordinate plane, and reflect them in the axes	

Comm	Dev	Achieved	

Key Stage 3	
comm	dev