Year 6
Progression of Objectives through I Can Statements

Using and Applying Maths	Solve multi-step problems, and problems involving fractions, decimals and percentages; choose and use appropriate calculation strategies at each stage, including calculator use	D1	*I can solve problems with several steps and decide how to carry out the calculation*
		E1	*I can work out problems involving fractions, decimals and percentages using a range of methods*
		A2	*I can solve problems involving more than one step*
		D2	*I can solve problems with several steps and decide how to carry out the calculation*
		A3	*I can solve problems involving more than one step* *I can explain the reason for my choice of method and say whether I think it was effective*
		D3	*I can solve problems with several steps and decide how to carry out the calculation*
		E3	*I can work out problems involving fractions, decimals and percentages using a range of methods*
	Tabulate systematically the information in a problem or puzzle; identify and record the steps or calculations needed to solve it, using symbols where appropriate; interpret solutions in the original context and check their accuracy	E1	*I can record the calculations needed to solve a problem and check that my working is correct*
		B2	*I can use a table to help me solve a problem* *I can identify and record what I need to do to solve the problem, checking my answer makes sense and is accurate*
		E2	*I can record the calculations needed to solve a problem and check that my working is correct*
		B3	*I can use a table to help me solve a problem* *I can identify and record what I need to do to solve the problem, checking that my answer makes sense and is accurate*
		E3	*I can record the calculations needed to solve a problem and check that my working is correct*
	Suggest, plan and develop lines of enquiry; collect, organise and represent information, interpret results and review methods; identify and answer related questions	C1	*I can suggest a line of enquiry and plan how to investigate it*
	Represent and interpret sequences, patterns and relationships involving numbers and shapes; suggest and test hypotheses; construct and use simple expressions and formulae in words then symbols (e.g. the cost of c pens at 15 pence each is 15c pence)	B1	*I can describe and explain sequences, patterns and relationships* *I can suggest hypotheses and test them* *I can write and use simple expressions in words and formulae*
		B2	*I can describe and explain sequences, patterns and relationships* *I can suggest hypotheses and test them* *I can write and use simple expressions in words and formulae*
		B3	*I can describe and explain sequences, patterns and relationships* *I can suggest hypotheses and test them* *I can write and use simple expressions in words and formulae*

Using and Applying Maths (cont.)	Explain reasoning and conclusions, using words, symbols or diagrams as appropriate	A1	*I can say whether a number will occur in a sequence, explaining my reasoning*
		E1	*I can talk about how I solve problems*
		A2	*I can explain my reasoning and conclusions, using symbols to represent unknown numbers*
		E2	*I can talk about how I solve problems*
		A3	*I can explain my reasoning and conclusions, using symbols to represent unknown numbers*

Counting and Understanding Number	Find the difference between a positive and a negative integer, or two negative integers, in context	A1	*I can find the difference between positive and negative integers*
	Use decimal notation for tenths, hundredths and thousandths; partition, round and order decimals with up to three places, and position them on the number line	A1	*I can round large numbers to the nearest multiple of 10, 100 or 1000*
		A2	*I can use decimals with up to three places and order them on a number line* *I can round decimals to the nearest whole number or the nearest tenth*
		A3	*I can use decimals with up to three places and order them on a number line* *I can partition decimals with three places*
	Express a larger whole number as a fraction of a smaller one (e.g. recognise that 8 slices of a 5-slice pizza represents 8/5 or 13/5 pizzas); simplify fractions by cancelling common factors; order a set of fractions by converting them to fractions with a common denominator	E1	*I can write a large whole number as a fraction of a smaller one, simplify fractions and put them in order of size*
		E2	*I can write a larger whole number as a fraction of a smaller one, simplify fractions and put them in order of size*
		E3	*I can write a large whole number as a fraction of a smaller one and simplify fractions and put them in order of size*
	Express one quantity as a percentage of another (e.g. express £400 as a percentage of £1000); find equivalent percentages, decimals and fractions	E2	*I can work out a quantity as a percentage of another and find equivalent percentages, decimals and fractions*
		E3	*I can work out a quantity as a percentage of another and find equivalent percentages, decimals and fractions*
	Solve simple problems involving direct proportion by scaling quantities up or down	E1	*I can scale up or down to solve problems*
		E2	*I can solve problems using ratio and proportion*
		E3	*I can solve problems using ratio and proportion*

Knowing and Using Number Facts	Use knowledge of place value and multiplication facts to 10 × 10 to derive related multiplication and division facts involving decimals (e.g. 0.8 × 7, 4.8 ÷ 6)	A1	*I can use tables facts to work out other facts with decimals*
		B1	*I can use tables facts to work out other facts with decimals*
		E1	*I can use place value and my tables to work out multiplication and division facts for decimals*
		A2	*I can use tables facts to work out other facts with decimals*
		B2	*I can use tables facts to work out related facts with decimals*
		B3	*I can use my tables to work out decimal facts like 0.4 × 8 and 5.6 ÷ 7*
		E3	*I can use place value and my tables to work out multiplication and division facts*
	Use knowledge of multiplication facts to derive quickly squares of numbers to 12 × 12 and the corresponding squares of multiples of 10	B1	*I can say the squares of numbers to 12 × 12 and work out the squares of multiples of 10*
		B2	*I can say the squares of numbers to 12 × 12 and work out the squares of multiples of 10*
		B3	*I can say the squares of numbers to 12 × 12 and work out the squares of multiples of 10*
	Recognise that prime numbers have only two factors and identify prime numbers less than 100; find the prime factors of two-digit numbers	B1	*I can work out which numbers less than 100 are prime*
		B2	*I can work out which numbers less than 100 are prime*
		B3	*I can tell you all the prime numbers up to 100 and find the prime factors of other numbers*
	Use approximations, inverse operations and tests of divisibility to estimate and check results	A1	*I can estimate and check the calculations that I do*
		B1	*I can estimate and check the calculations that I do*
		D1	*I can estimate the result of a calculation* *I know several ways of checking answers*
		A2	*I can estimate and check the result of a calculation*
		B2	*I can estimate and check the result of a calculation*
		D2	*I can estimate the result of a calculation* *I know several ways of checking answers*
		A3	*I can estimate and check the result of a calculation*
		B3	*I can estimate and check the result of a calculation*
		D3	*I can estimate the result of a calculation* *I know several ways of checking answers*

Calculating	Calculate mentally with integers and decimals: U.t ± U.t, TU × U, TU ÷ U, U.t × U, U.t ÷ U	A1	*I can add, subtract, multiply and divide whole numbers and decimals in my head*
		D1	*I can add, subtract, multiply and divide whole numbers and decimals in my head*
		A2	*I can add, subtract, multiply and divide whole numbers and decimals in my head*
		D2	*I can add, subtract, multiply and divide whole numbers and decimals in my head*
		A3	*I can add, subtract, multiply and divide whole numbers and decimals in my head*
		D3	*I can add, subtract, multiply and divide whole numbers and decimals in my head*
	Use efficient written methods to add and subtract integers and decimals, to multiply and divide integers and decimals by a one-digit integer, and to multiply two-digit and three-digit integers by a two-digit integer	D1	*I can add, subtract, multiply and divide whole numbers and decimals using efficient written methods*
		E1	*I can use efficient written methods to add, subtract, multiply and divide whole numbers and decimals*
		A2	*I can add, subtract, multiply and divide whole numbers and decimals using efficient written methods*
		D2	*I can add, subtract, multiply and divide whole numbers and decimals using efficient written methods*
		A3	*I can use efficient written methods to add, subtract, multiply and divide integers and decimal numbers* *I can calculate the answer to HTU ÷ U and U.t ÷ U to one or two decimal places*
		D3	*I can add, subtract, multiply and divide whole numbers and decimals using efficient written methods*
		E3	*I can use standard written methods to add, subtract, multiply and divide whole numbers and decimals*
	Relate fractions to multiplication and division (e.g. 6 ÷ 2 = 1/2 of 6 = 6 × 1/2); express a quotient as a fraction or decimal (e.g. 67 ÷ 5 = 13.4 or 132/5); find fractions and percentages of whole-number quantities (e.g. 5/8 of 96, 65% of £260)	E1	*I can find fractions and percentages of whole numbers*
		E2	*I can find fractions and percentages of whole numbers*
		E3	*I can find fractions and percentages of whole numbers*

Calculating (cont.)	Use a calculator to solve problems involving multi-step calculations	A1	*I can use a calculator to solve problems with more than one step*
		D1	*I can use a calculator to solve problems with several steps*
		E1	*I can, when needed, use a calculator to solve problems*
		A2	*I can use a calculator to solve problems involving more than one step*
		B2	*I can use a calculator to solve problems with more than one step*
		C2	*I can use a calculator to solve problems involving more than one step*
		D2	*I can use a calculator to solve problems with several steps*
		E2	*I can work out problems involving fractions, decimals and percentages using a range of methods*
		A3	*I can use a calculator to solve problems with more than one step*
		B3	*I can use a calculator to solve problems with more than one step*
		C3	*I can solve problems involving more than one step*
		D3	*I can use a calculator to solve problems with several steps*
		E3	*I can work out problems involving fractions, decimals and percentages using a calculator*

Understanding Shape	Describe, identify and visualise parallel and perpendicular edges or faces; use these properties to classify 2-D shapes and 3-D solids	B1	*I can classify 2D shapes with perpendicular or parallel sides*
		B2	*I can use the properties of parallel and perpendicular to describe and classify 2D shapes and 3D solids*
		B3	*I can identify 3D shapes with perpendicular or parallel edges or faces*
	Make and draw shapes with increasing accuracy and apply knowledge of their properties	B1	*I can make and draw shapes accurately*
		B2	*I can make and draw shapes accurately*
		B3	*I can make and draw shapes accurately*
	Visualise and draw on grids of different types where a shape will be after reflection, after translations, or after rotation through 90° or 180° about its centre or one of its vertices	D2	*I can reflect, rotate and translate shapes on grids*
	Use coordinates in the first quadrant to draw, locate and complete shapes that meet given properties	D2	*I can use coordinates when the x coordinate and the y coordinate are both positive*
	Estimate angles, and use a protractor to measure and draw them, on their own and in shapes; calculate angles in a triangle or around a point	D2	*I can estimate angles, and use a protractor to measure and draw them* *I know that the angle sum of a triangle is 180° and the sum of angles around a point is 360°*

Measuring	Select and use standard metric units of measure and convert between units using decimals to two places (e.g. change 2.75 litres to 2750 ml, or vice versa)	C1	*I can convert from one unit of measure to another*
		D1	*I can convert one measurement to another using a related unit. I use decimals to do this*
		C2	*I can convert measures between units including decimals*
		D2	*I can convert one measurement to another using a related unit. I use decimals to do this*
		C3	*I can convert measures between units including decimals*
		D3	*I can convert one measurement to another using a related unit. I use decimals to do this*
	Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments	C1	*I can read scales and give my answers as accurately as the question asks*
		D1	*I can read scales as accurately as a problem requires* *I can compare readings from different scales*
		C2	*I can read and answer questions about scales and write down my answer as accurately as the question requires* *I can compare readings from different scales*
		C3	*I can read and answer questions about scales and write down my answer as accurately as the question requires* *I can compare readings from different scales*
		D3	*I can read scales as accurately as a problem requires* *I can compare readings from different scales*
	Calculate the perimeter and area of rectilinear shapes; estimate the area of an irregular shape by counting squares	D1	*I can find the perimeter and area of shapes and estimate the area of irregular shapes*
		D3	*I can find the perimeter and area of shapes and estimate the area of irregular shapes*
	Solve problems by measuring, estimating and calculating; measure and calculate using imperial units still in everyday use; know their approximate metric values ***(Y6 extension)***	D1	*I know that 1 pint is just over half a litres, and that 1 litre is about 1 3/4 pints* *I know that 1 mile is about 1.6 km, and that 1 km is about 5/8 of a mile*
		D3	*I know that 1 pint is just over half a litre, and that 1 litre is about 1 3/4 pints* *I know that 1 mile is about 1.6 km, and that 1 km is about 5/8 of a mile*

Handling Data	Describe and predict outcomes from data using the language of chance or likelihood	C2	*I can use data to work out problems about chance*
		C3	*I can use the language of chance to solve problems*
	Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask	C1	*I can answer questions about the data I have represented*
		C2	*I can use data to solve problems*
		C3	*I can collect and present data in a variety of ways and use my results to solve problems*
	Construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts	C1	*I can represent data in different ways and understand its meaning*
		C2	*I can represent data in different ways and understand its meaning*
		C3	*I can represent data in a variety of ways and answer questions about the data, including interpreting pie charts*
	Describe and interpret results and solutions to problems using the mode, range, median and mean	C1	*I can work out different types of average*
		C2	*I can solve problems using mode, range, median and mean*
		C3	*I can use the different averages to solve problems*