Mathematics Key Objectives Record of Achievement/Self Assessment Sheet

Name _____ Year 6

	4	5	Year 6: main objectives (calculations)	7	8
A	When I do sums in my head, I can add or take away pairs of two-digit whole numbers (e.g. 47 + 58, 91 – 35).	When I do sums in my head, I can add and take away numbers up to 1000. I can also take away one near-multiple of 1000 from another (e.g. 6070 – 4097).	**I can do mental addition and subtraction accurately with decimal numbers (e.g. U.t + U.t, U.t - U.t) as well as with whole numbers.**	I can do **mental addition and subtraction** involving decimals, fractions and percentages.	
B	I use efficient written methods to add and subtract two-digit and three-digit numbers. I can also use written methods to add and subtract money in pounds and pence (e.g. £3.75 + £2.50; £3.75 - £2.50).	**I use efficient written methods to add and subtract whole numbers and decimals with up to two places.**	I use efficient written methods to add and subtract integers (whole numbers) and decimals…	I use standard column methods to add and subtract integers (whole numbers) and decimals…	
C	I can multiply numbers up to a thousand by 10 and 100 and divide them by 10 and 100 (when the answers are whole numbers). I understand the effect of multiplying and dividing by 10 or 100 and I can relate this to changing from centimetres to metres, from grams to kilograms etc. and vice versa.	When I do sums in my head, I can multiply a two-digit number by a one-digit number (e.g. 12 x 9) and multiply by 25 (e.g. 16 x 25). Using my knowledge of place value, I can multiply and divide whole numbers and decimals by 10, 100 and 1000.	**I can do mental multiplication and division accurately with decimal numbers (e.g. U.t x U, U.t ÷ U) as well as with whole numbers (e.g. TU x U, TU ÷ U).**	I can do **mental multiplication and division** involving decimals, fractions and percentages.	
D	I use written methods to work out and explain multiplication and division of two-digit numbers by a one-digit number (e.g. 15 × 9, 98 ÷ 6), including division sums with remainders.	**I use efficient written methods to multiply and divide (including HTU × U, TU × TU, U.t × U and HTU ÷ U).**	…I use efficient written methods to multiply and divide integers (whole numbers) and decimals by a one-digit integer, and to multiply two-digit and three-digit integers by a two-digit integer.	I use standard column methods to multiply two-digit and three-digit integers by a one-digit or two-digit integer. I can divide a three-digit integer by a two-digit integer.	
E	I can find fractions of numbers, quantities and shapes (e.g. $^1/_5$ of 30 plums, $^3/_8$ of a 6 x 4 rectangle).	I can find fractions of numbers and quantities by using division (e.g. $^1/_{100}$ of 5 kg). I can find percentages of numbers and quantities (e.g. 10%, 5% and 15% of £80).	**I can relate fractions to multiplication and division (e.g. 6 ÷ 2 = $^1/_2$ of 6 and 6 x $^1/_2$).** **I can express a quotient as a fraction or a decimal.** **I can find fractions and percentages of whole number quantities (e.g. $^5/_8$ of 96, 65% of £260).**	I can calculate percentage increases and decreases (e.g. work out the new price of an item with a ticket price of £9.60 in a sale with 25% off). I can find fractions of quantities and measurements.	
F	I can solve one-step and two-step problems involving numbers, money or measurements (including time). I decide what sums to do and complete them correctly. I use a calculator when it is sensible to do so.	I can solve one-step and two-step problems involving whole numbers and decimals and all four operations (+, -, x, ÷). I make good decisions about the best ways to do the calculations (whether to use mental methods with jottings, written methods or a calculator).	**I can solve multi-step problems.** **I can solve problems involving fractions, decimals and percentages.** **I make good decisions at each stage of the calculation about the best way to do the sums (whether to use mental methods with jottings, written methods or a calculator).**	I solve problems by breaking down complicated calculations into simpler steps. I think about the numbers and the context when deciding what sums to do and the best methods (mental, written, calculator) to use. I try different approaches when I come up against difficulties. I can present, interpret and compare solutions.	

	4	5	Year 6: main objectives	7	
G		I understand percentage as the number of parts in every 100. I can say or write down tenths and hundredths as percentages.	**I can say or write down one quantity as a percentage of another (e.g. express £400 as a percentage of £1000).** **I can find equivalent percentages, decimals and fractions.**	I recognise approximate proportions of a whole and I can use fractions and percentages to describe and compare them (for example when interpreting pie charts).	
H	**I know my time-tables (including 7x, 8x and 9x tables) well and can work out the related division facts quite quickly.** **I recognise multiples of numbers 1 to 10, up to the tenth multiple.**	I quickly recall multiplication facts up to 10 × 10 and I can use them to multiply pairs of multiples of 10 and 100. I can quickly work out division facts related to these times-tables.	**I use my knowledge of place value and multiplication facts to 10 × 10 to work out related multiplication and division facts involving decimals (e.g. 0.8 × 7, 4.8 ÷ 6).**	I am very quick when recalling number facts, including multiplication facts to 10 × 10 and the related division facts	
I	I can find and describe the position of a particular square on a grid of squares.	I can draw the position of a shape after a reflection or translation.	**I can picture in my mind (and draw on a grid) where a shape will be after reflection, after translations, or after rotation through 90° or 180° (about its centre or one of its vertices).**	I can transform images using ICT.	
J	**I choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity.** **I know the meaning of 'kilo', 'centi' and 'milli' and, where appropriate, I use decimal notation to record measurements (e.g. 1.3 m or 0.6 kg).**	I can read, choose, use and record standard metric units to estimate and measure length, weight and capacity accurately. I can convert larger to smaller units using decimals to one place (e.g. change 2.6 kg to 2600 g)	**I choose and use standard metric units of measure and can convert between units using decimals to two places (e.g. change 2.75 litres to 2750 ml, or vice versa).**	I can convert between related metric units using decimals to three places (e.g. change 1375 mm to 1.375 m, or vice versa).	
K	**I can answer a question by identifying what data to collect.** **I organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts.** **I use ICT where appropriate.**	I can answer a set of related questions by collecting, selecting and organising relevant data. I can draw sensible conclusions. I can use ICT to present results and identify further questions to ask.	**I can solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate.** **I can draw conclusions and identify further questions to ask.**	I can explore hypotheses by planning surveys or experiments to collect small sets of discrete or continuous data. I can select, process, present and interpret the data, using ICT where appropriate. I can suggest sensible ways to extend the survey or experiment.	