Progression in Measurement

COMPARING AND ESTIMATING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
compare, describe and solve practical problems for: * lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half] * mass/weight [e.g. heavy/light, heavier than, lighter than] * capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] * time [e.g. quicker, slower, earlier, later]	compare and order lengths, mass, volume/capacity and record the results using >, < and =	compare durations of events, for example to calculate the time taken by particular events or tasks	estimate, compare and calculate different measures, including money in pounds and pence (also included in Measuring)	calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes (also included in measuring) estimate volume (e.g. using 1 cm3 blocks to build cubes and cuboids) and capacity (e.g. using water)	calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm3) and cubic metres (m3), and extending to other units such as mm3 and km3.
sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	compare and sequence intervals of time	estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight			
MEASURING AND CALCULATING					MEASURING AND CALCULATING
measure and begin to record the following: * lengths and heights * mass/weight * capacity and volume * time (hours, minutes, seconds)	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	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	estimate, compare and calculate different measures, including money in pounds and pence	use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
recognise and know the value of different denominations of coins and notes	recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value	measure the perimeter of simple 2-D shapes	measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	recognise that shapes with the same areas can have different perimeters and vice versa
	find different combinations of coins that equal the same amounts of money	add and subtract amounts of money to give change, using both £ and p in practical contexts	find the area of rectilinear shapes by counting squares	calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes	calculate the area of parallelograms and triangles
	solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change				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 [e.g. mm3 and km3].
					recognise when it is possible to use formulae for area and volume of shapes
TELLING THE TIME					
tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	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.	tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks	read, write and convert time between analogue and digital 12 and 24-hour clocks	solve problems involving converting between units of time	

recognise and use language relating to dates, including days of the week, weeks, months and years	know the number of minutes in an hour and the number of hours in a day.	estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight	solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days		
CONVERTING					
	know the number of minutes in an hour and the number of hours in a day. (appears also in Telling the Time)	know the number of seconds in a minute and the number of days in each month, year and leap year	convert between different units of measure (e.g. kilometre to metre; hour to minute)	convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	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 notation to up to three decimal places
			read, write and convert time between analogue and digital 12 and 24-hour clocks	solve problems involving converting between units of time	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
			solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	understand and use equivalences between metric units and common imperial units such as inches, pounds and pints	convert between miles and kilometres