Measurement

EYFS
Measures
Recognising attributes e.g. length
Comparing amounts of continuous quantities e.g. longer/shorter, heavier/lighter
Showing awareness of comparison in estimating and predicting
Comparing indirectly e.g. Will the table fit through the door?
Recognising the relationship between the size and the number of units
Beginning to use units to compare things
Beginning to use time to sequence events
Beginning to experience different time durations

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] Spring 3 & 4 Summer 6	compare and order lengths, mass, volume/capacity and record the results using >, < and = Spring 5 Summer 4		estimate, compare and calculate different measures, including money in pounds and pence (also included in Measuring) Autumn 3 Spring 2 Summer 3	calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes (also included in measuring) Autumn 5 Summer 5 estimate volume (e.g. using 1 cm^3 blocks to build cubes and cuboids) and capacity (e.g. using water) Autumn 5 Summer 5	calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3), and extending to other units such as mm^3 and km^3. Spring 5
sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] Summer 6	compare and sequence intervals of time Summer 3	compare durations of events, for example to calculate the time taken by particular events or tasks Summer 2			
		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 (appears also in Telling the Time) Summer 2			

MEASURING and CALCULATING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
measure and begin to record the following: * **lengths and heights** * **mass/weight** * **capacity and volume** * **time** (hours, minutes, seconds**)** Spring 3 & 4 Summer 6	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 Spring 5 Summer 4	measure, compare, add and subtract: **lengths** (m/cm/mm); **mass** (kg/g); **volume/capacity** (l/ml) Spring 4 Summer 4	estimate, compare and calculate **different measures,** including **money in pounds and pence** (appears also in Comparing) Summer 2	use all four operations to solve problems involving measure (e.g. **length, mass, volume, money**) using decimal notation including scaling. Summer 1, 4 & 5	solve problems involving the calculation and conversion of **units of measure**, using decimal notation up to three decimal places where appropriate (appears also in Converting) Spring 4
		measure the **perimeter** of simple 2-D shapes Spring 4	measure and calculate the **perimeter** of a rectilinear figure (including squares) in centimetres and metres Autumn 3 Spring 2	measure and calculate the **perimeter** of composite rectilinear shapes in centimetres and metres Autumn 5 Summer 5	recognise that shapes with the same areas can have different **perimeters** and vice versa Spring 5

MEASURING and CALCULATING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
recognise and know the value of different denominations of **coins and notes** Summer 5	recognise and use symbols for pounds **(£) and pence (p)**; combine amounts to make a particular value Autumn 3 find different combinations of coins that equal the same amounts of money Autumn 3 **solve simple problems** in a practical context involving addition and subtraction of money of the same unit, including giving change Autumn 3	add and subtract amounts of **money** to give change, using both £ and p in practical contexts Spring 2			
			find the area of rectilinear shapes by counting squares Autumn 3 Spring 2	calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes Autumn 5 Summer 5 *recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})* (copied from Multiplication and Division)	calculate the area of parallelograms and triangles Spring 5
					calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [e.g. mm^3 and km^3]. Spring 5
					recognise when it is possible to use formulae for area and volume of shapes Spring 5

TELLING THE TIME					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Summer 6	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. Summer 3	tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks Summer 2	read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in Converting) Summer 3		
recognise and use language relating to dates, including days of the week, weeks, months and years Summer 6	know the number of minutes in an hour and the number of hours in a day. (appears also in Converting) Summer 3	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 (appears also in Comparing and Estimating) Summer 2			
			solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Converting) Summer 3	solve problems involving converting between units of time Summer 4	

CONVERTING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	know the number of minutes in an hour and the number of hours in a day. (appears also in Telling the Time) Summer 3	know the number of seconds in a minute and the number of days in each month, year and leap year Summer 2	convert between different units of measure (e.g. kilometre to metre; hour to minute) Autumn 3 Spring 2 Summer 3	convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) Summer 1,4 & 5	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 Spring 4
			read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in Converting) Summer 3	solve problems involving converting between units of time Summer 4	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in Measuring and Calculating) Spring 4
			solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Telling the Time) Summer 3	understand and use equivalences between metric units and common imperial units such as inches, pounds and pints Summer 1, 4 & 5	convert between miles and kilometres Spring 4