Progression in Maths: *Measurement*

Progression statements taken from NCETM Progression Maps for KS1 and KS2

EYFS statements taken from EYFS Development Matters. Statements in red taken from NCETM EYFS Progression charts.

EYFS 30-50 mths	EYFS 40-60 mths	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
COMPARING AND ESTIMATING							
Recognise attributes of length/ weight/ height etc.e.g. stating "that stick is long", "adults are tall". Comparing amounts of continuous quantities e.g. find something longer/ shorter than a given reference item. Show awareness of comparison in estimation and predictions eg which box should Teddy have?, What will fit in here?	Orders two or three items by length or height Orders two items by weight or capacity Orders and sequences familiar events' Recognising the relationship between the size and number of units: eg how many tennis balls will fit in this tub? What if I used ping-pong balls? **ELG: Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.**	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 =		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 (cm^2) and square metres (m^2) and estimate the area of irregular shapes (Also included in Measuring)	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
		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	compare durations of events, for example to calculate the time taken by particular events or tasks		estimate volume (e.g. using 1 cm^3 blocks to build cubes and cuboids) and capacity (e.g. using water)	
				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)			

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EYFS 30-50 mths	EYFS 40-60 mths	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
MEASURING AND CALCULATING							
	Beginning to use everyday language related to money Begin to use units to compare things.	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** (Appears also in Comparing)	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 (Appears also in Converting)
	ELG: Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.			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
		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 ————————- 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.	add and subtract amounts of **money** to give change, using both £ and p in practical contexts			

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MEASURING AND CALCULATING (cont)							
					find the area of rectilinear shapes by counting squares	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 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 ————————- 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]. ————————- Recognise when it is possible to use formulae for area and volume of shapes

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TELLING THE TIME							
Uses positional language Begin to use time to sequence events - using language of before, after, next, tomorrow etc..	Uses everyday language related to time Measures short periods of time in simple ways. Begin to experience specific time durations e.g. what can they do in 1 minute? **ELG: Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.**	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 (Appears also in Converting)		
		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. (Appears also in Converting)	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)			
					solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (Appears also in Converting)	solve problems involving converting between units of time	

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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 measure-ments 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 (Appears also in Telling the Time)	solve problems involving converting between units of time	solve problems involving the calcula-tion and conversion of units of measure, using decimal notation up to three decimal places where appropriate (Appears also in Measuring and Calculating)
					solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (Appears also in Telling the Time)	understand and use equivalences between metric units and common imperial units such as inches, pounds and pints	convert between miles and kilometres