

## Mathematics Skill Progression

Measurement						
Comparing and Estimating						
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Children use everyday language to talk about size, weight, capacity, to compare quantities and objects and to solve problems	compare, describe and solve practical problems for: <ul style="list-style-type: none"> <li>lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half]</li> <li>mass/weight [e.g. heavy/light, heavier than, lighter than]</li> <li>capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter]</li> <li>time [e.g. quicker, slower, earlier, later</li> </ul> sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	compare and order lengths, mass, volume/capacity and record the results using $>$ , $<$ and $=$ compare and sequence intervals of time	compare durations of events, for example to calculate the time taken by particular events or tasks 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)	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 <sup>2</sup> ) and square metres (m <sup>2</sup> ) and estimate the area of irregular shapes (also included in measuring) estimate volume (e.g. using 1 cm <sup>3</sup> 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 (cm <sup>3</sup> ) and cubic metres (m <sup>3</sup> ), and extending to other units such as mm <sup>3</sup> and km <sup>3</sup> .
Measuring and Calculating						
Children use everyday language to talk about size, weight, capacity, to compare quantities and objects and to solve problems	measure and begin to record the following: <ul style="list-style-type: none"> <li>lengths and heights</li> <li>mass/weight</li> <li>capacity and volume</li> <li>time (hours, minutes, seconds)</li> </ul>	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) measure the perimeter of simple 2-D shapes	estimate, compare and calculate different measures, including money in pounds and pence (appears also in Comparing) measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.	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) recognise that shapes with the same areas can have different perimeters and vice versa
Children use everyday language to talk about money to compare quantities and objects and to solve problems.	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	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 <sup>2</sup> ) and square metres (m <sup>2</sup> ) and estimate the area of irregular shapes  recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	calculate the area of parallelograms and triangle calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm <sup>3</sup> ) and cubic metres (m <sup>3</sup> ), and extending to other units [e.g. mm <sup>3</sup> and km <sup>3</sup> ]. S recognise when it is possible to use formulae for area and

					(copied from Multiplication and Division)	volume of shapes
<b>Telling the Time</b>						
Children use everyday language to talk about time 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 24hour clocks (appears also in Converting)	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. (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)		
<b>Converting</b>						
		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) read, write and convert time between analogue and digital 12 and 24hour clocks (appears also in Converting) solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Telling the Time)	convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) solve problems involving converting between units of time understand and use equivalences between metric units and common imperial units such as inches, pounds and pints	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 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) convert between miles and kilometres
<b>Measurement Vocabulary</b>						
Measure Measurement Size Weight Capacity Compare Solve Problems Object Time Today Yesterday Tomorrow Morning Afternoon Evening	Same as EYFS, plus: Length Height Long Short Longer Shorter Tall Double Half Mass Heavy Light Heavier than Lighter than Volume Full Empty More than Less than Half Half full Quarter Quicker Slower Earlier Later Sequence events Chronological order Before Same After Next First Record Hours Minutes Hour Half past O clock Hands Clock face Seconds Coins Notes Dates Days Weeks Months Years	Same as EYFS & Year 1, plus: Greater than > Less than < Equals = Intervals Standard units Estimate Direction Temperature Unit Scales Rulers Thermometers Metres Centimetres Kilograms Grams Degrees Celsius Litres Millilitres Symbols Money Pounds (£) Pence (p) Five past Ten past Quarter past Twenty past Twenty-five past Half past Twenty-five to Twenty to Quarter to Ten to Five to	Same as EYFS and KS1, plus: Measure Measurement Size Weight Capacity Compare Solve Problems Object Time	Same as previous classes, plus: Estimate Rectilinear figure Area Rectilinear shapes Convert	Same as previous classes, plus: Square centimetres (cm <sup>2</sup> ) Square metres (m <sup>2</sup> ) Irregular shapes Volume (cm <sup>3</sup> ) Cubes Cuboids Square numbers Cube numbers Metric measure Metric units Imperial units Inches Pounds Pints	Same as previous classes, plus: Decimal notation Cubic centimetres (cm <sup>3</sup> ) Cubic metres (m <sup>3</sup> ) Cubic millimetre (mm <sup>3</sup> ) Cubic kilometre (Km <sup>3</sup> ) Decimal places formulae Miles

