

## **Mathematics Curriculum Progression Map**

## **Number: Measurement**

EY	<u>FS</u>						
3-4 Year olds	Reception	<u>Year 1</u>	Year 2	Year 3	Year 4	<u>Year 5</u>	<u>Year 6</u>
			Comparing	and Estimating			
Make	Compare	Compare, describe	Compare and		Estimate,	Calculate and	Calculate,
comparisons	length,	and solve practical	order lengths,		compare and	compare the	estimate and
between	weight and	problems for:	mass,		calculate	area of squares	compare volume
objects	capacity	<ul><li>lengths and</li></ul>	volume/capacity		different	and rectangles	of cubes and
relating to		heights e.g.	and record the		measures,	including using	cuboids using
size, length,	(Model	long/short,	results using >, <		including money	standard units,	standard units,
weight and	comparative	longer/shorter,	and =		in pounds and	square	including
capacity	language	tall/short,			pence	centimetres	centimetre cubed
	using "than";	double/half			(cross reference	(cm <sup>2</sup> ) and square	(cm <sup>3</sup> ) and cubic
(Provide	"This is	<ul><li>mass/weight</li></ul>			- Measuring)	metres (m <sup>2</sup> ) and	metres (m <sup>3</sup> ), and
experience of	heavier than	e.g. heavy/light,				estimate the	extending to
size changes,	that."	heavier than,				area of irregular	other units such
e.g. "Can you		lighter than				shapes (cross	other units such

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make a	Ask the	<ul><li>capacity and</li></ul>				reference -	as mm and km
puddle	children to	volume e.g.				measuring)	(cross reference –
smaller?"	make and	full/empty,					measuring and
Talk with the	test	more than, less					calculating)
children	predictions:	than, half, half					carcara (iii g)
about their	"What if we	full, quarter					
everyday	pour the	o time e.g.					
ways of	iugful into	quicker, slower,					
comparing	the teapot?	earlier, later					
size, length,	Which holds	,					
weight and	more?")					Estimate volume,	
capacity.	,					3	
Model						e.g. using 1 cm	
specific						blocks to build	
techniques,						cubes and	
such as lining						cuboids; and	
up ends of						capacity e.g.	
lengths and						using water	
straightening							
ribbons,							
discussing							
accuracy: "Is							
it <u>exactly</u> ?"							
		Sequence events	Compare and	Compare			
		in chronological	sequence intervals	durations of			
		order using	of time	events, for			
		language e.g.		example to			
		before and after,		calculate the time			
		next, first, today,		taken by			
		yesterday,		particular events			
		tomorrow,		or tasks			
		morning,					

afternoon and					
evening					
		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			
		(cross reference -			
		Telling the Time)			
	Measuring	and Calculating			
Measure and begin	Choose and use	Measure,	Estimate,	Use all four	Solve problems
to record the	appropriate	compare, add and	compare and	operations to	involving the
following:	standard units to	subtract: lengths	calculate	solve problems	calculation and
<ul> <li>lengths and</li> </ul>	estimate and	(m/cm/mm);	different	involving	conversion of
heights	measure	mass (kg/g);	measures,	measure, e.g.	units of measure,
<ul><li>mass/weight</li></ul>	length/height in	volume/capacity	including money	length, mass,	using decimal
<ul> <li>capacity and</li> </ul>	any direction	(I/mI)	in pounds and	volume and	notation up to
volume	(m/cm); mass		pence	money; using	three decimal
o time (hours,	(kg/g);		(cross reference	decimal notation	places where
minutes,	temperature (°C);		- Comparing)	including scaling	appropriate
seconds)	capacity (litres/ml)			(cross reference	(cross reference -
	to the nearest			– Problem	Converting and
	appropriate unit,			Solving)	Problem Solving)

			T		
	using rulers,				
	scales,				
	thermometers and				
	measuring vessels				
		Measure the	Measure and	Measure and	Recognise that
		perimeter of	calculate the	calculate the	shapes with the
		simple 2-D shapes	perimeter of a	perimeter of	same areas can
			rectilinear figure	composite	have different
			(including	rectilinear	perimeters and
			squares) in	shapes in	vice versa
			centimetres and	centimetres and	
			metres	metres	
Recognise and	Recognise and use	Add and subtract			
know the value of	symbols for	amounts of			
different	pounds (£) and	money to give			
denominations of	pence (p);	change, using			
coins and notes	combine amounts	both £ and p in			
	to make a	practical contexts			
	particular value	practical contexts			
	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			
	including giving			
	change (cross-			
	reference Problem			
	Solving)	1.1		
		Find the area of	Calculate and	Calculate the
		rectilinear	compare the	area of
		shapes by	area of squares	parallelograms
		counting	and rectangles	and triangles
		squares	including using	
			standard units,	
			square	Calculate,
			centimetres	estimate and
			(cm <sup>2</sup> ) and square	compare volume
			metres (m <sup>2</sup> ) and	of cubes and
			estimate the	cuboids using
				standard units,
			area of irregular	including
			shapes (cross	centimetre cubed
			reference - comparing and	(cm <sup>3</sup> ) and cubic
			estimating)	metres (m <sup>3</sup> ), and
				extending to
			Recognise and	other units such
			use square	
			numbers and	as mm <sup>3</sup> and km <sup>3</sup>
			cube numbers,	(cross reference –
			and the notation	comparing and
			2	estimating)
			for squared (ੈ)	Recognise when
			and cubed ( <sup>3</sup> )	it is possible to
			(cross reference -	use formulae for
			Multiplication	area and volume
			and Division)	of shapes
			,	-
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<u>Telling the Time</u>								
Т	Γell the time to the	Tell and write the	Tell and write the	Read, write and				
h	hour and half past	time to five	time from an	convert time				
t	the hour and draw	minutes, including	analogue clock,	between				
	the hands on a	quarter past/to	including using	analogue and				
	clock face to show	the hour and draw	Roman numerals	digital 12 and				
	these times	the hands on a	from I to XII, and	24-hour clocks				
		clock face to show	12-hour and 24-	(cross reference				
		these times.	hour clocks	- Converting)				
F	Recognise and use	Know the number	Estimate and read					
	language relating	of minutes in an	time with					
t	to dates, including	hour and the	increasing					
	days of the week,	number of hours	accuracy to the					
	weeks, months	in a day.	nearest minute;					
	and years	(cross reference -	record and					
		Converting)	compare time in					
			terms of seconds,					
			minutes, hours					
			and o'clock; use					
			vocabulary such					
			as a.m./p.m.,					
			morning,					
			afternoon, noon					
			and midnight					
			(cross reference-					
			Comparing and					
			Estimating)					
			Know the number					
			of seconds in a					
			minute and the					
			number of days in					

	T				1
		each month, year			
		and leap year			
		(cross reference -			
		Telling the Time)			
			Solve problems	Solve problems	
			involving	involving	
			converting from	converting	
			hours to	between units of	
			minutes;	time (cross-	
			minutes to	reference –	
			seconds; years	Converting and	
			to months;	Problem Solving)	
			weeks to days	<b>5</b> .	
			(cross reference		
			- Converting		
			and Problem		
			Solving)		
	Cor	nverting			
	Know the number	Know the number	Convert	Convert	Use, read, write
	of minutes in an	of seconds in a	between	between	and convert
	hour and the	minute and the	different units	different units of	between
	number of hours	number of days in	of measure (e.g.	metric measure,	standard units,
	in a day.	each month, year	kilometre to	e.g. kilometre	converting
	(cross reference -	and leap year	metre; hour to	and metre;	measurements of
	Telling the Time)	(cross reference -	minute)	centimetre and	length, mass,
	i cig che riine)	Telling the Time)		metre;	volume and time
				centimetre and	from a smaller
				millimetre; gram	unit of measure
				and kilogram;	to a larger unit,
				litre and millilitre	and vice versa,
				c and minimic	using decimal
					notation to up to
					notation to up to

							three decimal places
					Read, write and convert time between analogue and digital 12 and 24-hour clocks (cross reference - Converting)	Solve problems involving converting between units of time (cross reference – telling the Time and Problem Solving)	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (cross reference - Measuring and Calculating; and Problem Solving)
					Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (cross reference - Telling the Time and Problem Solving)	Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	Convert between miles and kilometres
Problem Solving  Problem Solving							
T			Solve simple		Solve problems	Solve problems	Solve problems
			problems in a		involving	involving	involving the

practical context	converting from	converting	calculation and
involving addition	hours to	between units of	conversion of
and subtraction of	minutes;	time (cross	units of measure,
money of the	minutes to	reference –	using decimal
same unit,	seconds; years	Telling the Time	notation up to
including giving	to months;	and Converting)	three decimal
change (cross	weeks to days		places where
reference –	(cross reference		appropriate
Measuring and	- Telling the		(cross reference -
Calculating)	Time and		Converting and
	Converting)		Measuring and
			Calculating)