Meath Green Junior School- Whole School Progression- Measurement

Our Intent:				
Maths at Meath Green Junior School is a subject that sparks curiosity, provides challenge and results in enjoyment through the children's processes and successes. We aim for the stigma of maths to be eradicated and replaced with children who are brave and resilient within their approaches to mathematical concepts, representations and problems. Our approaches ensure that children are actively involved in their learning and are passionate about their knowledge and achievements.				
Developing knowledge	Year 3	Year 4	Year 5	Year 6
Measurement				
Measuring and Calculating				
Begin to use units to measure and 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	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 (Also shown 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

appropriate unit, using rulers, scales, thermometers and measuring vessels				
	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 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	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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Comparing and Estimating				
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	Estimate volume and capacity	
Converting unit				
		convert between different units of measure (e.g. kilometre to metre;	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

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		solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (Also shown in Telling the Time)		Solve problems involving calculation and conversion of units of measure, using decimal notation up to three decimals places
			understand and use equivalences between metric units and common imperial units such as inches, pounds and pints	convert between miles and kilometres
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 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.,	read, write and convert time between analogue and digital 12 and 24-hour clocks		

	morning, afternoon, noon and midnight (also mentioned in comparing and estimating)			
know the number of minutes in an hour and the number of hours in a day. recognise and use language relating to dates, including days of the week, weeks, months and years	know the number of seconds in a minute and the number of days in each month, year and leap year			
<u>Comparing and Estimating time</u>				
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 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.,			

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	morning, afternoon, noon and midnight			
Converting time				
		convert between different units of measure; hour to minute solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	solve problems involving converting between units of time	
Measuring and calculating money				
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	Add and subtract amounts of money to give change, using both £ and p in practical contexts		Use all four operations to solve problems involving measure	

solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change				
Mensuration- the part of geometry concerned with find out lengths, areas and volumes.				
Perimeter				
	Measure the perimeter of simple 2-d shapes	Measure and calculate the perimeter of a rectilinear figure in centimetres and metres	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Recognise that shapes with the same area have different perimeters and vice versa
Area				
		Find the area of rectilinear shapes by counting squares	Calculate and compare the area of rectangles (including squares) using standard units of measure Estimate the area of irregular shapes	Calculate the area of parallelogram and triangles Recognise when it is possible to use formulae for area of shapes
Volume				
				Recognise when it is possible to use formulae for volume of shapes Calculate, estimate and compare volume of cubes and

				cuboids using cubic centimetres and metres