PARKFIELD SCHOOL
felicitas per ardua

Measurement (inc Money and Time)

National Centre for Excellence in the Teaching of Mathematics

DECSCRIBE, MEASURE, COMPARE AND SOLVE						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Although the ELG does not make specific reference to measure, the children will be learning to: • (3-4) Make comparisons between objects relating to size, length, weight and capacity. • Compare length, weight and capacity. • (3-4) Begin to describe a sequence of events, real or fictional, using words such as 'first' then'….. • Stories, role play scenarios and adult led activities such as cooking will drive many of these learning opportunities.	• To compare, describe and solve practical problems for: lengths and heights, mass/weight, capacity and volume, time. • To measure and begin to record the following: lengths and heights, mass/weight, capacity and volume, time. • *To move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example, liquid) measurement, to using manageable common standard units using measuring tools, such as a ruler, weighing scales and containers.*	• To choose and use appropriate standard units *with increasing accuracy using their knowledge of the number system* 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. • *To use the appropriate language and record using standard abbreviations.* • To compare and order lengths, mass, volume/capacity and record the results using >, < and =. • *To compare measures including simple multiples such as 'half as high'; 'twice as wide'.*	• To measure *using the appropriate tools and units*, compare (*including simple scaling by integers)* add and subtract *using mixed units*: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	• To estimate, compare and calculate different measures, including money in pounds and pence.	• To use all four operations to solve problems involving measure using decimal notation, including scaling *and conversions*.	• *To use a number line, to add and subtract positive and negative integers for measures such as temperature.* • To solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.

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CONVERTING UNITS OF MEASURE						
				• To use multiplication to convert from larger to smaller units. • To convert between different units of measure and build on their understanding of place value and decimal notation to record metric measures, including money.	• To use the knowledge of place value and multiplication and division to convert between standard units. • To convert between different units of metric measure. • To understand and use approximate equivalences between metric units and common imperial units.	• To 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. • To convert between miles and kilometres. • To know approximate conversions to tell if an answer is sensible.

PERIMETER, AREA AND VOLUME						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			• To measure the perimeter of simple 2D shapes. • Understanding capacity and volume • Measuring the volume of liquids using litres and millilitres. • Estimate then measure mass and volume and record in a table	• To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.	• To measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres including using the relations of perimeter. Note: Missing measures questions can be expressed algebraically. • To find the area of rectilinear shapes by	• To recognise that shapes with the same areas can have different perimeters and vice versa. • To recognise when it is possible to use formulae for area and volume of shapes. • To relate the area of rectangles to parallelograms and triangles and calculate

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					counting squares. • To relate area to arrays and multiplication. • To calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2), use the area of rectangles to find unknown lengths and estimate the area of irregular shapes. Note: Missing measures questions can be expressed algebraically. • To 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 (for example, mm^3 and km^3). • To calculate the area from scale drawings using given measurements. • To estimate volume.	their areas, understanding and using the formulae (in words or symbols) to do this. • To calculate the area of parallelograms and triangles.

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MONEY						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• That we exchange coins and notes for wanted items.	• recognise and know the value of different denominations of coins and notes	• recognise and use symbols for pounds (£) & 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 & 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	Estimate and compare and calculate different measures, inv money in pounds and pence.	Use all four operations to solve problems involving measure [for example, 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

TELLING TIME						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Begin to describe a sequence of events, real or fictional, using words, such as 'first', 'then...' • That we name parts of the day eg morning, night time. Children begin to recognise routines of the day.	• To sequence events in chronological order using language. • To recognise and use language relating to dates, including days of the week, weeks, months and years. • tell the time to the hour and half past the hour and draw the hands on a clock face	• sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • recognise and use language relating to dates, including days of the week, weeks, months and years	• To tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. • To begin to use digital 12-hour clocks and record their times in preparation for using digital 24-hour clocks in year 4. • To estimate and read	• To read, write and convert time between analogue and digital 12- and 24-hour clocks. • To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	• To solve problems involving converting between units of time.	• To solve problems involving converting between units of time.

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	to show these times - Measure time (hours, minutes, seconds)	• 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 • know the number of minutes in an hour and the number of hours in a day.	time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours. • To use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. • To know the number of seconds in a minute and the number of days in each month, year and leap year. • To compare durations of events.			