COMPARING AND ESTIMATING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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) Estimate volume (e.g. using 1 cm^3 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^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 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)			

MEASURING and CALCULATING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measure and begin to record the following: * **lengths and heights**	Choose and use appropriate standard units to estimate and measure **length/height** in any	Measure, compare, add and subtract: **lengths** (m/cm/mm); **mass** (kg/g);	Estimate, compare and calculate **different measures,** including **money in pounds**	Use all four operations to solve problems involving measure (e.g. **length, mass,**	Solve problems involving the calculation and conversion of **units of**

* **mass/weight** * **capacity and volume** * **time** (hours, minutes, seconds**)**	direction (m/cm); **mass** (kg/g); **temperature** (°C); **capacity** (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels	**volume/capacity** (l/ml)	**and pence** (appears also in Comparing)	**volume, money**) using decimal notation including scaling.	**measure**, using decimal notation up to three decimal places where appropriate (appears also in Converting)
		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

MEASURING and CALCULATING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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	Add and subtract amounts of **money** to give change, using both £ and p in practical contexts			
	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				
			Find the area of rectilinear shapes by counting squares	Calculate and compare the area of squares and rectangles including using	Calculate the area of parallelograms and triangles

				standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes *recognise and use square numbers, and the notation for squared (^{2}) and cubed (^{3})* (copied from Multiplication and Division)	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
TELLING THE TIME					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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	

CONVERTING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	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 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
			Read, write and convert time between analogue and digital 12 and 24-hour clocks	Solve problems involving converting between units of time	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)
			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

Year 1 Measurement					
Compare, describe and solve practical problems.	Measure and begin to record.	Recognise and know the value of different denominations of coins and notes.	Sequence events in chronological order.	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.
Know basic vocabulary linked to length, mass capacity and time. Look at an object and describe using related vocabulary to length, capacity, mass or time. Look at 2 different objects and say something similar or different relating to length, capacity, mass or time. Put objects in order of height, length, weight, capacity or time.	Say which object is heavier or lighter, longer or shorter. Measure using non-standard objects. Know why you need standard units of measurement. Match the correct measuring tool to the subject being measured. Read scales knowing you start at zero using rulers, scales and containers.	Recognise and name individual coins and notes. Order coins and notes in order of value. Know the value of each coin and exchange equal values.	Put pictures of events in time order. Know and use words before and after and link to everyday events.	Know names and order of days of the week. Know months of the year and their order. Answer questions related to days and months. E.g. when is your birthday? What day do we do P.E. on?	Look at clocks and describe what they can see. E.g. hands. Know the position of the hands for o'clock. Know clock is divided into halves and relate to half past. Know how to draw the hands on the clock and record the time in words.

Year 2 Measure		
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 Compare and order lengths, mass, volume/capacity and record the results using >, < and =	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	Compare and sequence intervals of time 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.
Opportunities for the direct comparison of objects for length, weight and capacity. Offer children a range eg. Big light box and small heavy toy. Children should not associate size directly with weight. Use standard and non-standard units to measure mass and capacity. Identify suitable measuring instruments eg. Be able to explain why it would not be appropriate to use a ruler to measure the classroom etc. Know that the starting point needs to be the same when beginning to measure. Understand that numbers appear on a scale and that this shows how much, how long, Choose and use a range of measuring instruments.	Can give a value to each value of coin/note. Can combine amounts to make a given value. Can investigate to find different ways to make same amounts using different coin combinations. Recognise landmark numbers, e.g., 10s, 100s etc. Estimate and place nos. on a number line or grid Relate to money in number contexts e.g. Bridge the 10's in context eg: pence pounds, etc	Use a right angle checker in investigation tasks. Understand angle as a measurement of turn. Eg turn 2 right angles = half link angles of turn to analogue clocks. Make whole turns, half turns and quarter turns. Use a time line (number line) to order familiar events. Be able to use ordinal numbers in context eg: I have my breakfast first and then I go to school. Use ordinal numbers to label events. Use a number line to work out time intervals. Understand the relationship between units of time. Count in steps of 5 and relate to minutes

Read scales to the nearest labelled division eg the book is nearly 15 cms long. Begin to make sensible estimates in relation to familiar units eg. The book is about 25 cms not 2 metres. Begin to use a wider range of measures. Know that the starting point needs to be the same when beginning to measure. Understand that numbers appear on a scale and that this shows how much, how long, Use a range of number lines in different orientations including semi – circle and ask children to read and place numbers on. Use a range of number lines including those with only landmark numbers marked. Read scales to the nearest labelled division. Draw and measure lines of different lengths.	Apply to £-Bridge 10 Bridge 100 Word problems involving money, eg, calculate the change from £5 when we buy 5 oranges at 35-p each.	on an analogue clock. Use word problems to provide a context for time Read the time to the hour, half hour and quarter hour.

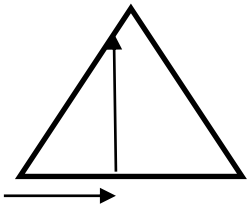
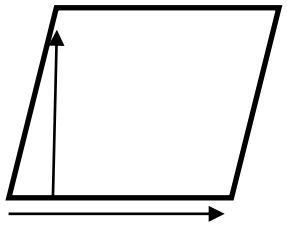
Year 3 Measure			
Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	Measure the perimeter of simple 2-D shapes.	Add and subtract amounts of money to give change, using both £ and p in practical contexts.	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.
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. To understand more than, less than and equal to. To understand equivalent measures. Understand which measuring tools are appropriate and to use them correctly.	To understand the term perimeter. Understand which measuring tools are appropriate and to use them correctly. To recognise 2d shapes.	To recognise all coins and notes To recognise and use symbols for pounds (£) and pence (p); To add money to make a particular amount To find different combinations of coins that equal the same amounts of money To solve simple money problems involving addition and subtraction of money of the same unit, including giving change To understand how to use a number line for addition and subtraction. Bonds to 10 and 100.	To tell and write the time to five minutes, including quarter past/to the hour To draw the hands on a clock face to show above times Children expected to begin to tell time from a 12 hour digital clock to prepare for telling the time from a 24 hour digital clock in Year 4

Year 3 Measure		
Know the number of seconds in a minute and the number of days in each month, year and leap year	Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight	Compare durations of events [for example to calculate the time taken by particular events or tasks].
To know the number of minutes in an hour and the number of hours in a day. To know the months of the year and how many months are in a year To know the seasons of the year	To tell and write the time to five minutes	To know the number of minutes in an hour. To use a number line to count on or find the difference

Year 4 Measure					
Convert between different units of measure (e.g. kilometre to metre; hour to minute).	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.	Find the area of rectilinear shapes by counting squares.	Estimate, compare and calculate different measures, including money in pounds and pence.	Read, write and convert time between analogue and digital 12 and 24 hour clocks.	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
Understand the relationship between units of length, capacity, mass. eg ml and litres, cm and metres, grams and kgs Know the meaning of kilo, centi and milli. Understand equivalence eg 1.3mtrs is the same as 1 metre 300 cms and 1300 cms. Know the conversions of 24 hours to a day; 60 minutes to an hour; 60 seconds to a minute	Rectilinear shapes = bounded or formed by straight lines and meet at right angles Accurately draw rectangles and other simple shapes. Measure and calculate the perimeters in cm and m	Begin to understand area as a measure of surface. Find area by counting squares. Use a grid to draw shapes with straight lines and calculate the areas by counting squares. Begin to understand the connection between counting squares and cm^2 Relate to multiplication and arrays	Understand vocabulary estimate, compare Visualise the different quantities of measure eg how much does the bucket hold compared to a small bottle?	Understand about am and pm. Be aware of analogue, 12 and 24 hour clocks and use notation Read digital clocks Read time to the nearest minute. Convert time between analogue and digital	Calculate time intervals that don't cross the hour Calculate time intervals that cross over the hour Use a calendar for longer time intervals. eg: the 17th July 2009 is a Friday what day will be the 6th August?

Year 5 Measure				
Convert units of measurement for length, weight & capacity.	Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.	Measure & calculate the perimeter of composite rectilinear shapes in cm & m.	Calculate & compare the area rectangles (including squares) and including standard units, square cm and square m. Estimate area of irregular shapes.	Estimate volume and capacity.
To Know that 1000m = 1km 100cm = 1m 10mm = 1cm 1000g = 1kg 1000ml = 1l To change mm into cm & vice versa To change cm into mm & vice versa To change mm into cm & vice versa To change g into kg & vice versa To change ml into l & vice versa To apply knowledge of x & ÷ by 10, 100, 1000	To know the imperial terms: Inches – length Pounds – weight Pints – capacity To know that 1 inch =2.5cm To know that 1 pound = approx. 450g To know that 1 pint =approx. $\frac{1}{2}$ litre	To know perimeter is distance around the outside of a shape. Calculate perimeter of rectangles Calculate perimeter of composite shapes. Use knowledge of perimeter to find unknown lengths. Use algebraic equations to express perimeter.	To know what the area of a shape is measuring. Use formula Length x Width to find out area of a shape. Use cm^2 and m^2 as unit of measurement. Use scale drawings	To know what volume is. To estimate the volume of different shapes. Use 1 cm^3 blocks to build cuboids to investigate volume. To know what capacity is. To investigate capacity of different containers. To use knowledge of capacity to estimate capacity of different containers.

Year 5 Measure	
To solve problems involving converting between units of time.	To use all 4 operations to solve problems involving measure (length, mass, volume & money) using decimal notation, including scaling.
To read the question and highlight key information. To know the conversions of time: 60 secs = 1 min 60 mins – 1 hr 24 hrs = 1 day	Use a variety of word and practical problems.

Year 6 Measure			
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.	Solve problems involving the calculation and conversion of **units of measure**, using decimal notation up to three decimal places where appropriate.	Recognise that shapes with the same areas can have different **perimeters** and vice versa.	Calculate the area of parallelograms and triangles.
Understand the difference between volume and capacity. Understand that it is 3D. Understand and use units of measure. Know how to calculate volume Be able to compare.	Use units of measure such as kg to g and litres to ml. Apply to real life context. Apply all four operations reliably.	Understand the difference between area and perimeter. How to calculate area and perimeter. How the same area can give different shapes. As well as same perimeter through a different shape will give a different area.	Area of a triangle =1/2 base x height  Area of a Parallelogram = height x length 

Year 6 Measure			
Recognise when it is possible to use formulae for area and volume of shapes.	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 .	Convert between miles and kilometres.
Apply formulae when needed. Length x Height x Depth	Know use and convert measures. Multiplying and dividing by 10, 100, 1000.	Know standard units of measure and apply to problem solving and reasoning activities. Multiplying and dividing by 10, 100, 1000.	Know 1.609344 (Perhaps 1.6) Km equals 1 mile. Be able to multiply and divide by 1.6.