Second Level: Aware/ Understanding [Second *]

	Term 1	Term 2	Term 3	Term 4
Estimating and Rounding	▪ Know that +/- and x/÷ are inverse operations ▪ Round any number to the nearest 10 ▪ Round numbers to the nearest 100 in context (within 1,000) ▪ Round any 4 digit number to the nearest 10, 100 and 1,000	▪ Estimate the answer to a problem ▪ Estimate and check solutions to problems using the inverse operation ▪ Understand the value of tenths	▪ Solve problems using estimation and check using the inverse – justify answers	▪ Round numbers with one decimal place to nearest whole number
Awareness of Number ▪ **Counting** ▪ **Numerals** ▪ **Quantities** ▪ **Place Value**	▪ Estimate positions of numbers on a number line ▪ Read and write numbers beyond 1,000 ▪ Order numbers beyond 1,000 ▪ Identify the next numbers in a forward/ backward number sequence ▪ Position numbers beyond 1,000 on a number line ▪ Read and write decimal fractions with up to one decimal place ▪ Understand and provide examples of the numbers before and after a given number ▪ Use concrete resources to represent different numbers ▪ Use pictorial representations to show different numbers ▪ Match numerals to pictorial representations or concrete materials ▪ Estimate numbers using different representations ▪ To make 4 digit numbers recording in numbers and words ▪ To represent 4 digit numbers (concrete) ▪ To recognise the value of each digit in a 4 digit number ▪ To recognise the place value of numbers with at least 1 decimal place	▪ Count in steps of 6, 7, 100 ▪ Count objects by grouping different multiples ▪ Count in multiples starting at any number up to 1,000 ▪ Count in thousands, hundreds, tens and ones/ units ▪ Describe and extend number sequences ▪ Use concrete resources to represent different numbers ▪ Use pictorial representations to show different numbers ▪ Match numerals to pictorial representations or concrete materials ▪ Estimate numbers using different representations ▪ Order numbers beyond 1,000 ▪ Compare numbers beyond 1,000	▪ Count in steps of 9, 25 ▪ Sequence numbers 0-10,000 forwards and backwards ▪ Compare numbers beyond 1,000 using < and > ▪ Describe and extend number sequences ▪ Order decimal fractions with up to one decimal place ▪ Position decimal fractions on a number line ▪ Use concrete resources to represent different numbers ▪ Use pictorial representations to show different numbers ▪ Match numerals to pictorial representations or concrete materials ▪ Estimate numbers using different representations ▪ To find 1, 10, 100 or 1,000 more than a given number (concrete) ▪ To x and ÷ a one/two digit number by 10 and identify the value of the digits in the answer	▪ Understand that 0 is not the end point of the number line ▪ Count backwards and forwards through zero to include negative numbers using a number line ▪ Describe and extend number sequences involving decimal fractions with one decimal place ▪ To x and ÷ a one/two digit number by 100 and identify the value of the digits in the answer
Addition & Subtraction	▪ Partition numbers in different ways ▪ Recognise and describe part whole relationships ▪ To + and – up to four digit numbers (no bridging) ▪ To identify common misconceptions in + and -	▪ To + and – with bridging in the 100s ▪ To + and – with bridging in the 100s, 10s and 1s ▪ To identify common misconceptions in + and -	▪ To + and – with bridging in the 1,000s, 100s, 10s and 1s ▪ To identify common misconceptions in + and – ▪ To round off numbers to the nearest 10/ 100 ▪ Solve two step word problems for addition and subtraction	▪ To identify common misconceptions in + and – ▪ Estimate and use inverse to check answers ▪ + and – decimals up to 2 decimal places (money & measure) ▪ Solve two step word problems for addition and subtraction
Multiplication & Division	▪ Understand the process of multiplying and dividing by 2-12 ▪ Make the link between sharing, arrays and division ▪ Use the commutative law for multiplication 2x4=4x2	▪ X and ÷ by multiples of 10/100 ▪ X and ÷ 2/3 digit numbers by a one digit number ▪ Use the commutative law for multiplication 2x4=4x2 ▪ Use associative law to x 3 numbers, 2x3x4=6x4=24 or 2x3x4=2x12=24	▪ Divide a 3 digit number using short division ▪ Derive x and ÷ facts from three digit numbers ▪ Solve two step word problems for multiplication and division	▪ X a 2 digit number by a 2 digit number ▪ Use the distributive law 3 x (2+4) = 3x2 + 3x4 or 3x204 = 3x200 + 3x4 ▪ Solve problems using scaling ▪ Solve two step word problems for multiplication and division ▪ Recognise factors of a number
Fractions, Decimals and Percentages		▪ Show equivalent fractions pictorially ▪ Compare fractions >,< ▪ Calculate a simple fraction of a quantity ▪ Recognise and write decimal equivalents of any number of tenths or hundredths	▪ To identify and calculate equivalent fractions ▪ Recognise and write decimal equivalents to ¼, ½ 1/3 ▪ Compare numbers with the same numbers of decimal places (up to 2 d.p)	▪ Write decimal equivalents to simple fractions ▪ Use factors and multiples to recognise equivalent fractions ▪ Simplify fractions ▪ To link fractions, decimals and measures (using a number line)

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Measurement: ▪ **Money** ▪ **Time** ▪ **Length** ▪ **Mass** ▪ **Perimeter** ▪ **Area** ▪ **Volume** ▪ **Patterns and Relationships** ▪ **Expressions and Equations** ▪ **Impact of Maths**	▪ Can tell the time to the minute ▪ Measure and estimate the length, width and height of objects using cm/mm ▪ Choose appropriate unit of measure when estimating weight ▪ Know perimeter is the distance round the outside ▪ Measure the area of regular shapes using cm^2 and m^2 ▪ Read scales accurately using litres and millilitres ▪ Use well known number patterns such as multiples ▪ Research historical number systems and how they have changed over time	▪ Solve money problems using mental strategies ▪ Convert between 12 hour and 24 hour time ▪ Can use calendars and timetables to plan events ▪ Measure and estimate lengths in metres ▪ Estimate the weight of an object to 1, ½ and ¼ kg ▪ Measure accurately perimeter of regular shapes using cm ▪ Measure the area of regular shapes using ½ cm^2 ▪ Applies knowledge to create a number pattern	▪ Solve money problems using 4 operations ▪ Select appropriate strategies to solve money problems ▪ Can convert half an hour to 30 minutes ▪ Can convert quarter of an hour to 15 minutes ▪ Know that ½ metre = 50cm ▪ Know that ½ kg = 500g ▪ Measure accurately perimeter of irregular shapes using cm ▪ Calculate accurately the perimeter of irregular shapes using cm ▪ Calculate the area of squares and rectangles using the formula A = l x b ▪ Applies knowledge to create a number pattern ▪ To express and solve missing number problems algebraically x – 30 = 40 and 4B=20	▪ Buying within a budget ▪ Calculate time intervals bridging across several hours ▪ Introduction to the links between speed, distance and time ▪ Convert between cm/m and mm/cm writing in decimal form to 1 d.p ▪ Know that ¼ kg = 250g ▪ Estimate the weight of an object to 1, ½ and ¼ kg ▪ Choose appropriate unit of measure when estimating weight ▪ Draw different shapes with equal perimeters ▪ Understands the link between formula and known x facts ▪ Draw different shapes with equal areas ▪ Read scales accurately using litres and millilitres ▪ Measure and estimate using ¼ litre (250 ml) ▪ Measure volume of cubes/ cuboids using concrete cubes ▪ Know notation for cubic cm (cm^3) ▪ Use well known number patterns such as multiples ▪ To use simple formula to generate, express and describe linear number sequences
Shape, Position and Movement ▪ **2D and 3D Shape** ▪ **Angles and Symmetry** ▪ **Transformation**	▪ Name and measure angles to a +/- 2 degree accuracy (revising acute, obtuse and right)	▪ Extend the range of 2D shapes ▪ Extend knowledge of 2D shapes ▪ Complete and create symmetrical shapes/ patterns with vertical, horizontal and diagonal lines of symmetry ▪ Identifies line symmetry on a wide range of 2D shapes and completes symmetrical patterns with and without digital tech	▪ Extend understanding of 3D objects ▪ Extend range of 3D objects ▪ Use 8 compass points and angles to describe, record and follow directions ▪ Draw simple triangles given angles and lengths ▪ Use knowledge of angles to calculate missing angles ▪ Identifies line symmetry on a wide range of 2D shapes and completes symmetrical patterns with and without digital tech ▪ Interpret a coordinate system to locate and plot a point on a grid	▪ Continue to extend range of shapes and properties ▪ Use and create nets for 3D shapes ▪ Extend knowledge of properties of 3D objects ▪ Name, measure and draw angles to a +/- 2 degree accuracy ▪ Apply scale to interpret maps, plans and diagrams ▪ Interpret a coordinate system to locate and plot a point on a grid
Information Handling: ▪ **Data Handling and Analysis** ▪ **Ideas of Chance and Uncertainty**		▪ Predict and explain outcomes using appropriate vocabulary – 50:50/ equal chance	▪ Interpret information presented to show awareness of significance of data ▪ Conduct experiments involving chance and probability – heads/ tails & red/ black	▪ Display data in a variety of more complex ways ▪ Select appropriate questions for a survey to gather information required ▪ Know how methods of collecting information may affect the day collected