Second Level: Use With Understanding/ Apply [Second ***]

REVIEWED: June 24	Term 1	Term 2	Term 3	Term 4
Estimating and Rounding	▪ Round numbers to the nearest 10, 100, 1000, 10,000 and 100,000. ▪ Round decimals to the nearest tenth or whole number. ▪ Estimate the position on a number line/other scales, part labelled.	▪ Develop an understanding of contexts/situations where figures are given as rounded/estimated/exact. ▪ Solve problems by estimating and rounding.	▪ Using a number line round decimals to the nearest hundredth e.g. 3.682 is 3.68 to the nearest hundredth. ▪ Estimate the position of a decimal on a number line, part labelled.	▪ Applies knowledge of rounding to give an estimate to a calculation appropriate to the context.
Awareness of Number ▪ **Counting** ▪ **Numerals** ▪ **Quantities** ▪ **Place Value**	▪ Consolidate numbers to at least 1,000,000. ○ Count forwards and backwards in 1's, 10's, 100's, 1,000, and 100,000. ○ Read and write in numerals. ○ Recognise place value of each digit. ○ Partition and recombine in a variety of ways. ○ Order numbers ○ Describe and extend number sequences. ▪ Count forwards and backwards in multiples of 2, 3, 4, 5, 6, 7, 8, 9, 10. ▪ Working with decimals (tenths, hundredths and thousandths) ○ Understand $\frac{1}{1000}$ is the same as 0.001 ○ Understand $\frac{10}{1000}$ is the same as 0.01 ○ Understand $\frac{100}{1000}$ is the same as $\frac{1}{10}$ and 0.1 ○ Make representations using concrete materials/pictorial	▪ Secure understanding of numbers up to and beyond 1,000,000. ▪ Working with decimals (tenths, hundredths and thousandths): ○ Make ○ Match numeral to pictorial representations ○ Match to fraction equivalent ○ Read ○ Write ○ Order and position ○ Identify place value ○ Partition	▪ Sequence and order negative numbers using a number line if needed. ▪ Identify missing negative numbers in a sequence. ▪ Working with decimals (tenths, hundredths and thousandths) with whole numbers (e.g. 3.612), and using concrete materials/pictorial representation as needed: ○ Make ○ Match ○ Read ○ Write ○ Order and position ○ Identify place value ○ Count forwards and backwards e.g. 0.001, 0.002, 0.003 etc	▪ Sequence and order negative numbers using a number line if needed. ▪ Identify missing negative numbers in a sequence. ▪ Working with decimals (tenth, hundredths and thousandths) with whole numbers (e.g. 3.612), and using concrete materials/pictorial representation as needed: ○ Order and position ○ Partition e.g. 3.612 = 3 ones, 6 tenths, 1 hundredth and 2 thousandths = 3 and 612 thousandths ○ Change a mixed number/improper fraction (with thousandths) to a decimal
Addition & Subtraction	▪ Practice mental addition and subtraction skills. ▪ Consolidate skills in written addition and subtraction, up to at least 6 digits and 2 decimal places.	▪ Apply addition and subtraction skills to multi-step worded problems, whole numbers and up to 3 d.p.	▪ Apply addition and subtraction skills to multi-step worded problems, whole numbers and up to 3 d.p.	▪ Apply addition and subtraction skills to multi-step worded problems, whole numbers and up to 3 d.p.
Multiplication & Division	▪ Consolidate skills in multiplication and division, at least up to 5-digits by a single digit ▪ Multiply and divide by 10, 100 and 1000, whole numbers and decimals ▪ Multiply whole numbers by 2 digit numbers	▪ Multiply by multiples of 10, 100 and 1000 e.g. 382x30 ▪ Divide by multiples of 10, 100 and 1000 e.g. 2100 ÷ 30 ▪ Revisit multiplication and division of decimal fractions by a single digit	▪ Revisit multiplying whole numbers by 2-digit numbers ▪ Revisit multiplying and dividing decimal fractions by a single digit. ▪ Divide whole numbers where the answer is expressed as a decimal fraction e.g. 43 ÷ 5 = 8.6 ▪ Identify multiples and factors of whole numbers and apply this knowledge to problem solving.	▪ Consolidate and apply multiplication and division skills to multi-step worded problems, whole numbers and up to 3 d.p.
Patterns & Relationships	▪ Explain a number pattern by creating a formula and use the formula to extend the sequence.		▪ Revisit square and triangular numbers. ▪ Explore Pascal's Triangle	▪ Apply knowledge of multiples, square numbers and triangular numbers to generate number patterns.

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Expressions & Equations	▪ Revisit algebraic equations which involve both addition/subtraction and multiplication. e.g.3x + 1 = 10 ▪ Consolidate understanding of inequalities e.g. 7>3	▪ Solve inequalities ▪ Apply the correct order of operations in calculations (BODMAS)	▪ Compare negative numbers using > <	
Fractions, Decimals and Percentages	▪ Consolidate fraction knowledge: o Identifying o Equivalent o Simplifying o Ordering o Fractions of a quantity ▪ Convert between fractions, decimals and percentages	▪ Find a simple percentage of a quantity ▪ Use a calculator to find more complex percentages of a quantity	▪ Apply knowledge of percentages, decimals and fractions to worded problems. ▪ Learn common fraction, decimal and percentage equivalents e.g. ½ = 50% = 0.5 ▪ Use knowledge of above to solve problems	▪ Apply knowledge of percentages, decimals and fractions to 2 step worded problems e.g. Discounts
Measurement: ▪ **Money** ▪ **Time** ▪ **Length** ▪ **Mass** ▪ **Perimeter** ▪ **Area** ▪ **Volume**	▪ Apply knowledge of the four operations to solve mixed worded money problems. ▪ Consolidate understanding of telling the time: o 12-hour with am/pm o 24 hour clock o Convert between 12 and 24-hour times o Calculate time intervals o Converting between common units of time o Reading timetables o Calculating durations of time ▪ Read stopwatches and record times, using tenths or hundredths of a second. ▪ Convert between units of length, using decimals where appropriate e.g. 5500mm = 550cm = 5.5m ▪ Revisit perimeter and areas of squares, rectangles and right angled triangles	▪ Use knowledge of percentages to calculate APR of a Credit Card. ▪ Explore the benefits/risks of using bank cards (credit and debit) ▪ Use timetables and calendars to plan events and solve real-life problems. ▪ Consolidate area by drawing different shapes with the same area ▪ Calculate the volume of a cuboid using a formula.	▪ Calculate profit, loss and discounts in real-life contexts. ▪ Work within a given budget ▪ Compare costs and evaluate best buys in real-life context. ▪ Explore the link between speed, distance and time, and use this to calculate distance travelled or journey time ▪ Convert between units of length, mass and volume, using decimals where appropriate e.g. 5500mm = 550cm = 5.5m; 3.009kg=3009g;5250ml=5.25l ▪ Use knowledge of the four operations to solve problems involving various weights. ▪ Make reasonable estimates (to the nearest appropriate unit) and comparisons of length, mass, area and capacity	▪ Solve problems involving Hire Purchase. ▪ Revise cost comparisons ▪ Choose the most appropriate timing device in practical situations and record times using the relevant units ▪ Select the most appropriate unit of time for a given task and explain why ▪ Read a variety of scales accurately
Shape, Position and Movement ▪ **Shape** ▪ **Angles and Symmetry** ▪ **Transformation**	▪ Draw accurately a range of 2d shapes using digital technologies and mathematical instruments. ▪ Classify a range of angles identified within shapes in the environment ▪ Draw and measure a range of angles up to 180° ▪ Identify more than one line of symmetry.	▪ Use knowledge of 2d shapes to draw nets of triangular prisms and other 3d shapes. ▪ Complete a symmetrical pattern (with and without the use of digital technologies) ▪ Know that complementary angles add to 90° and use this to calculate missing angles. ▪ Know that supplementary angles add to 180° and use this to calculate missing angles. ▪ Plot coordinates (first quadrant only)	▪ Name the parts of a circle- circumference, diameter and radius. ▪ Know that the radius is half a diameter. ▪ Accurately draw a circle using a pair of compasses. ▪ Use angles to describe directions.	▪ Describe the properties of quadrilaterals using equal, parallel and angles. ▪ Describe the properties of 3d shapes. ▪ Interpret and use scale on a diagram ▪ Draw scaled diagrams
Information Handling: ▪ **Data Handling and Analysis** ▪ **Ideas of Chance and Uncertainty**		▪ Interpret data in a pie chart ▪ Introduce new language of probability to describe the likelihood of simple events occurring: one in two; two in three; percentage chance; 1/6	▪ Draw bar, line and pie charts, including digitally ▪ Calculate and simplify probabilities using knowledge of fractions and percentages	▪ Interpret data from various sources: pictographs, bar charts, pie charts and line graphs ▪ Explore experimental probability by carrying out repeated trials e.g. what's the probability of throwing a 6 if you throw a die 50 times? ▪ Use data to predict the outcome of an experiment