AUTUMN 1 - YEAR 3 MATHEMATICS OBJECTIVES

	TOPIC	*For all units of work, problem solving and reasoning opportunities are integrated.* *Red typing refers to Year 2 objectives*
Week 1, week 2, week 3	Year 2 objectives – transition unit.	• Say the number names to at least 100, from and back to zero. • Know what each digit in a two-digit number represents including 0 as place holder. • Compare and order numbers from 0 up to 100; use <, > and = signs • To recognise odd and even numbers • Compare two two–digit numbers, say which is more or less and give a number that lies between them • To recall number bonds to 10 and use related facts to 100 (8 + 2= 10) 80 + 20= 100 • Recall pairs of multiples of 10 that make 100. • To recall number bonds to 20 (17 + 3, 11+ 9) • Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 where applicable (17- 2, 16 + 3). The answer should not exceed 20. • Count in steps of 1, 2, 3, and 5 from 0, and in tens from any two-digit number, forward or backwards • Add a two-digit number and ones/ tens • Add two two-digit numbers • Adding three one-digit numbers
Week 4 and 5	Place value	• To recognise the place value of each digit in a three digit number (hundreds, tens, ones). • Number – place value Identify, represent and estimate numbers using different representations • Compare and order numbers up to 1000 • Find 10 or 100 more or less than a given number • Read and write numbers up to 1000 in numerals and in words. . • Solve number problems and practical problems involving these ideas. • Count from 0 in multiples of 50 and 100
Weeks 6, 7	Addition 1) *Partition* 2) *Expanded column* 3) *Then column method*	• To partition numbers with up to three digits. • Add numbers mentally, including: a three- digit number and ones; a three-digit number and tens; a three digit number and hundreds. • To add numbers with up to three digits by using the expanded method of partitioning • To add three digit numbers using column addition

AUTUMN 2 - YEAR 3 MATHEMATICS OBJECTIVES - 2022		
	TOPIC	*For all units of work, problem solving and reasoning opportunities are integrated.*
Weeks 1 and 2	Subtraction 4) *Partition* 5) *Expanded column* 6) *Then column method*	• To subtract three digit numbers using the expanded method of partitioning • To subtract three digit numbers using column subtraction • Estimate the answer to a calculation and use inverse operations to check answers • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
Week 3 and 4	Multiplication and Division	• Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables. • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. • Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs. • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in context. • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
Week 5,6 and 7	Measure: temperature, length and perimeter	• Measure lengths in cm/m/ and m • To convert between cm and m (only use whole numbers 5m= 500cm or 1m and 30cm= 130cm) • Compare lengths • add and subtract: lengths (m/cm/mm). • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. • Measure the perimeter of simple 2D shapes. • Continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed and simple equivalents of mixed units.

Spring 1   - YEAR 3 MATHEMATICS OBJECTIVES – 2023

	TOPIC	For all units of work, problem solving and reasoning opportunities are integrated.
Week 1, 2 and 3	Multiplication and division ***Grid method for multiplication*** ***Repeated subtraction on a number line for division.***	• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objectives. • To know that division is repeated subtraction • Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. (Grid method for two by one digits 23 x 4 , 36 x 5)
Week 4 and 5	Geometry (properties of shape)	• Recognise angles as a property of shape or a description of a turn. • Identify right angles, recognise that two right angles make a half-term, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. • Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. • Draw 2-D shapes and make 3-D shapes using modelling materials. • Recognise 3-D shapes in different orientations and describe them
Week 6	Addition and subtraction *Money week linked to mini-market*	• Add and subtract amounts of money to give change, using both £ and p in practical contexts. • Arithmetic test

Spring 2 - YEAR 3 MATHEMATICS OBJECTIVES - 2023

	TOPIC	*For all units of work, problem solving and reasoning opportunities are integrated.*
Week 1, 2 and 3	Measure (mass and capacity)	• To compare, add and subtract: mass (kg/g); volume/capacity (l/ml). • Measure mass • Compare mass • To explore the capacity of different containers and measure the volume of liquid in a container • Compare capacities and volumes of liquid in a container • Converting measures. (Only whole numbers 1kg-1000g or 2kg and 500g= 2500g) *no decimals needed.* • To solve word problems involving mass and capacity (add and subtract different measures.) • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
Week 4	Statistics	• Interpret and present data using bar charts, pictograms and tables.
Week 5 and 6	Fractions	• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. • Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. (Finding fractions of amounts of objects) • Count up and down in tenths. • Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10

Summer 1 - YEAR 3 MATHEMATICS OBJECTIVES - 2023

	Topic	For all units of work, problem solving and reasoning opportunities are integrated.
Weeks 1 and 2.	Measurement- time ***Problem solving must be integrated***	• 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. Compare and sequence intervals of time. • To understand what is meant by am and pm and use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. • To know the number of minutes in an hour and hours in a day • Tell the time to the nearest hour and half hour • To read and draw the times 'quarter to' and 'quarter past' • To tell the time to the nearest 5 minutes • To compare durations of time.
Weeks 3 and 4	Measurement (mass and capacity)	• To measure mass (g and kg) • To convert between g and kg (only whole numbers 1kg-1000g or 2kg and 500g= 2500g) no decimals needed. • To explore the capacity of different containers and measure the volume of liquid in a container. • To convert between ml and L (only whole numbers 1kg-1000g or 2kg and 500g= 2500g) no decimals needed) • Continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed units (for example, 1kg and 200g) and simple equivalents of mixed units (for example, 5m = 500cm).
Week 5	Statistics	• Interpret and present data using bar charts, pictograms and tables. • Solve one-step and two-step questions (for example, 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables
Week 6 (or earlier)		*End of year assessment to take place during this half term.*

Summer 2 - YEAR 3 MATHEMATICS OBJECTIVES - 2023

	TOPIC	For all units of work, problem solving and reasoning opportunities are integrated.
Week 1	Money	• Add and subtract amounts of money to give change, using both £ and p in practical contexts • Solve problems including missing number problems, using number facts, place value, and more complex addition and subtraction.
Week 2 and 3	Fractions *Problem solving must be integrated*	• Recognise and show, using diagrams, equivalent fractions with small denominators. • Add and subtract fractions with the same denominator within one whole. • Compare and order unit fractions, and fractions with the same denominators. • Solve problems that involve all of the above.
Week 4 and 5	Time	• Know the number of seconds in a minute and the number of days in each month, year and leap year. (months and years and hours in a day). • To tell the time to the nearest 5 minutes • Estimate and read time with increasing accuracy to the nearest minute. • Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. • Record and compare time in terms of seconds, minutes and hours. • Compare durations of events [for example to calculate the time taken by particular events or tasks]. • (Find duration between events) • Find start and end times • Measure time in seconds
Week 5 an 6+	Assessment Consolidation/ Investigations	**Consolidation** Place value Times tables and applying known number facts- 2,3,4,5,8 and 10. Ensure that **all** children can add and subtract three digit numbers fluently. Ensure that **all** children can multiply 2 digits by 1 digit numbers fluently using the grid method. Revisit properties of 2D and 3D shapes. Complete longer open-ended investigations.