AUTUMN 1 - YEAR 4 MATHEMATICS OBJECTIVES-

Red typing denotes Year 3 objectives.

Problem Solving and Reasoning are embedded within the units of work.

Starters	**See objectives in the checklist**	
	TOPIC	
Week 1, week 2, week 3	Number and Place Value	• Count in multiples of 6, 7, 9. 25 and 1000. • Find 1000 more or less than a given number. • Count backwards through zero to include negative numbers. • Recognise the place value of each digit in a three number. • Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones) • Order and compare numbers beyond 1000. • Identify, represent and estimate numbers using different representations. • Round any number to the nearest 10, 100 or 1000. • Solve number and practical problems that involve all of the above and with increasingly large positive numbers. • Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the c • **End of unit assessment**
Weeks 4, 5, 6,	Addition and Subtraction	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. (Start with 3 digit numbers as a revision) • Estimate and use inverse operations to check answers to a calculation. • Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why • **End of unit assessment**
Week 7	Measure Length and perimeter	• Revise mm/cm and m. Convert between cm and m. • Convert between different units of measure eg kilometre to metre. • Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m

AUTUMN 2 - YEAR 4 MATHEMATICS OBJECTIVES - 2022

Starters	**See objectives in the checklist**	
	TOPIC	
Week 1 2 and 3.	Multiplication and Division Grid method	• Recall and use multiplication and division facts for multiplication tables up to 12 x 12. • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1 • To multiply three numbers using effective strategies. • Recognise and use factor pairs and commutativity in mental calculations. • To understand that division is repeated subtraction and the concepts of remainders. • Multiply two digit and three digit numbers by a one digit number using a written method (the grid method). • To divide 2 and 3 digit numbers by a 1 digit number using a written method- short division(place value counters.) • **End of unit assessment**
Weeks 4, 5	Geometry- properties of shapes	• **3D shapes recap** • **Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.** • **Identify lines of symmetry in 2D shapes presented in different orientations.** • **Complete an simple symmetric figure with respect to a specific line of symmetry.** • **Identify acute and obtuse angles and compare and order angles up to two right angles by size.** • **End of unit assessment**
Week 6 and 7	Time	• 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) • End of unit assessment

Spring 1 - YEAR 4 MATHEMATICS OBJECTIVES - 2023

Starters	**See objectives in the checklist**	
	TOPIC	
Week 1, 2 and 3	Multiplication and division Multiplication methods 1) Grid 2) short expanded column 3) Short multiplication Division methods 1) Repeated subtraction on a number line 2) Short division	• To multiply two digit and three digit numbers by a one digit number using the grid method (revision) • To use the short expanded method to multiply numbers • To multiply two digit and three digit numbers by a one digit number short multiplication • To solve two-step word problems involving short multiplication • To understand division as repeated subtraction • To divide 2 and 3 digit numbers by a 1 digit number using a formal written method (short division) • Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. • To use the inverse to find the relationship between multiplication and division. • To investigate multiplication and division • **End of unit assessment.**
Week 4	Measure- area	• Find the area of rectilinear shapes by counting squares. • Convert between different units of measure eg kilometre to metre • To convert between units to solve word problems • **End of unit assessment**
Week 5	Measure money To prepare for mini market	• **Estimate, compare and calculate different measures, including money in pounds and pence. (Umbrella objective)** • To make specified amounts of money and make sure I know different coins. • To compare amounts of money using < or > sign • To add and subtract amounts of money to give change • Solve simple measure and money problems involving decimals to two decimal places.
Week 6	Fractions	• To assess what I know about fractions • Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. • **Arithmetic test**

Spring 2 - YEAR 4 MATHEMATICS OBJECTIVES - 2023		
Starters	**See objectives in the checklist**	
	TOPIC	
Weeks 1 and 2	Fractions	• Add and subtract fractions with the same denominator within one whole • Add and subtract fractions with the same denominator (more than one whole) • Recognise and show, using diagrams, families of common equivalent fractions (use small denominators to start). • Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. (To find fractions of numbers and amounts) • End of unit assessment
Week 3, 4 and 5	Place value/ Decimals	• Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones) • Round any number to the nearest 10, 100 or 1000. • Recognise and write decimal equivalents of any number of tenths or hundredths. • Recognise and write decimal equivalents to ¼, ½, ¾ • Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths
Week 6	Assessment and consolidation	• Consolidation and Assessment Activities

Summer 1 - YEAR 4 MATHEMATICS OBJECTIVES - 2023

Starters	**See objectives in the checklist**	
	Topic	
Week 1	Decimals	• Round decimals with one decimal place to the nearest whole number. • Compare numbers with the same number of decimal places up to two decimal places • Add and subtract decimal numbers with up to 4 digits. • End of unit assessment
Week 2 and 3	Decimals to be continued if necessary Geometry position and direction	• Describe positions on a 2D grid as coordinates in the first quadrant. • Describe movements between positions as translations of a given unit to the left/ right and up/ down. • Plot specified points and draw sides to complete a given polygon.
Weeks 4,5,6	Time End of year 4 tests (week 5) Incorporate times tables for MTC check.	• To read and write the time shown on analogue clocks to the nearest minute. • To read and write the time shown on analogue clocks and draw hands on a clock. • Convert between different units of measure eg hour to minute. • To read, write and convert time between analogue and digital 12 and 24 hour clocks.. • Calculate time intervals • Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days • **End of unit assessment**

Summer 2 - YEAR 4 MATHEMATICS OBJECTIVES - 2023

Starters	**See objectives in the checklist**	
	TOPIC	
Week 1/2	Statistics	• Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs
Week 3	Measure- money	• Estimate, compare and calculate different measures, including money in pounds and pence. (Break down

		into objectives) • To compare amounts of money using < or > sign • To calculate change accurately. • Solve simple measure and money problems involving decimals to two decimal places. • Solve simple measure and money problems involving **fractions** and decimals to two decimal places.
Week 4	Fractions **Could be Arts week**	• Recognise and show, using diagrams, families of common equivalent fractions. • Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. • Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities including non-unit fractions where the answer is a whole number. (finding fractions of amounts) • Add and subtract fractions with the same denominator greater than a whole.
Week 5/6	Place value/ decimals/ measure revision **Could be starters**	• Count backwards through zero to include negative numbers • Compare numbers with the same number of decimal places up to two decimal places • Round decimals with one decimal place to the nearest whole number • To convert between units of length (investigation)
Week 7 +	Assessment Consolidation/ Investigations	**<u>Consolidation</u>** Ensure that **all** children can add and subtract four digit numbers fluently (and decimals) Ensure that **all** children can multiply and divide 3 digit by 1 digit numbers fluently using short multiplication and short division. **Complete a longer investigation.**