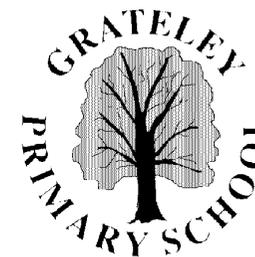


Grateley Primary School

Maths Medium Term Plan – Year 5 and 6

Term: Spring 1



Week	Date	Year	Block / Focus	Prior Objectives	Year group objectives	Big Ideas, Problem Solving Activities
1	04.01.2021	5	Place Value	Y4: To count backwards through 0 to include negative numbers.	Y5: To interpret negative numbers in context, count forward and backwards with positive and negative whole numbers, including 0. Y5: Count forward and backwards in steps of powers of 10 for any given number up to 1,000,000.	Pupils to understand where negative numbers come from. Children to count across 0. Understand where powers of 10 come from.
		6		Y5: To interpret negative numbers in context, count forward and backwards with positive and negative whole numbers, including 0.	Y6: To use negative numbers in context and calculate intervals across 0.	Understand how to identify the difference between two numbers (where at least one is negative).
2	11.01.2021	5	Addition and Subtraction	Y4: Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Y5: Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). Y5: solve addition and subtraction multi-step problems in contexts,	State what they are doing when adding and subtracting using the column method – can say that they are adding 4 tens and 5 tens etc. Identify where they need to exchange and carry. Identify key steps when solving multi-step problems.

					deciding which operations and methods to use and why.	
		6		Y5: solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Y6: Solve problems involving addition and subtraction. Y6: Solve addition and subtraction multi-step problems in contexts, deciding which methods to use and why.	Pick out key information from word problems. Identify key steps when solving multi-step problems.
3	18.01.2021	5	Multiplication and Division	Y4: Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.	Y5: Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.	Use grid method to understand partitioning of numbers.
		6		Y5: Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.	Y6: Multiply multi-digit numbers by a two-digit whole number using the formal written method of long multiplication. Y6: Divide numbers up to 4 digits by a two-digit number using formal written method of long division.	
4	25.01.2021	5	Multiplication and Division	Y4: Recall multiplication and division facts for multiplication tables up to 12 x 12.	Y5: Divide numbers up to 4 digits by a one-digit number using formal written method of short division and interpret remainders	

					appropriately for the context.	
		6		Y5: Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	Y6: Multiply one-digit numbers with up to 2 decimal places by whole numbers. Y6: Identify common factors, common multiples and prime numbers.	Use the column method to multiply two numbers. Understand the place value of 2 numbers when using column multiplication method. Use language of factors, multiples and prime.
5	01.02.2021	5	Fractions	Y4: Solve problems involving increasingly harder fractions to calculate quantities.	Y5: Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1\ 1/5$. Y5: Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	Use visual representations to convert mixed number and improper fractions. Convert improper fractions to mixed number fractions when adding fractions. Understand when multiplying a fraction by a whole number it is like multiplying by the fractions over 1 (for example, $3/4 \times 5$ is like $3/4 \times 5/1$).
		6		Y5: Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	Y6: Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1.4 \times 1/2 = 1/8$].	Understand when multiplying a fraction by a whole number it is like multiplying by the fractions over 1 (for example, $3/4 \times 5$ is like $3/4 \times 5/1$). Multiply two sets of fractions. Use visual representations to support.
6	08.02.2021	5		Y4: Count up and down in hundredths; recognise that hundredths arise	Y5: Recognise and use thousandths and relate them to tenths,	Understand how hundredths are equal to dividing something into 100 parts.

				when dividing an object by one hundred and dividing tenths by ten.	hundredths, and decimal equivalents. Y5: Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.	Link fractions and decimals – find equivalents of tenths and hundredths as fractions and decimals.
		6		Y5: Read, write, order and compare decimals with up to three decimal places.	Y6: Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.	Use part whole models to identify the different place value in a decimal number. Reason about what happens when multiplying by 10, 100 or 1000 (not that you add 0's).
Half Term						
8	22.02.2021	5	Place Value	Y4: Round any number to the nearest 10, 100 or 1000.	Y5: Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000.	Identify what degree of accuracy is needed to answer a question. Use place value knowledge to identify place value needed to round.
		6	Place Value/ Percentages	Y5: recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.	Y6: Round any whole number to a required degree of accuracy. Y6: Find percentages of amounts.	Round decimals to a whole number or one decimal place. Solve problems identifying largest and smallest numbers which round to a specific degree of accuracy.
9	01.03.2021	5	Calculations	Y4: Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Y5: Solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why.	Identify the steps involved in a multi-step problem. Retrieve the information needed from a word problem. Identify the correct operation to use in a multi-step problem.

				Y4: Use place value, known and derived facts to multiply and divide mentally.	Y5: Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.	
		6		Y5: Solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why. Y5: Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.	Y6: Multiply multi digit numbers up to 4 digit by a two-digit whole number using the formal written method of long multiplication. Y6: Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Identify the steps involved in a multi-step problem. Retrieve the information needed from a word problem. Identify the correct operation to use in a multi-step problem.
10	08.03.2021	5	Calculations	Y4: Recall multiplication and division facts for multiplication tables up to 12 x 12.	Y5: Recognise and use square and cube numbers, and the notation for squared and cubed. Y5: Know and use the vocabulary for prime numbers, prime factors and composite (non-prime) numbers.	Understand that squared numbers are numbers multiplied by themselves ($2^2 = 2 \times 2$). Understand that cubed numbers are numbers multiplied by themselves and then multiplied by themselves again ($2^3 = 2 \times 2 \times 2$). Use the language of squared, cubed, prime, prime factors and composite.
		6		Y5: Know and use the vocabulary for prime numbers, prime factors and composite (non-prime) numbers.	Y6: Identify common factors, common multiples and prime numbers.	Use the language of squared, cubed, prime, prime factors and composite. Recognise that a squared number only has factors of itself and 1.

11	15.03.2021	5	Statistics	Y4: Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	Y5: Solve comparison, sum and difference problems using information presented in a line graph.	Retrieve key information from a line graph. Compare line graphs. Draw line graphs based on given information.
		6		Y5: Solve comparison, sum and difference problems using information presented in a line graph.	Y6: Interpret and construct pie charts and line graphs and use these to solve problems.	Understand how to section a pie chart. Record information given from pie charts and line graphs.
12	22.03.2021	5	Fractions	Y4: Recognise and show, using diagrams, families of common equivalent fractions.	Y5: Identify, name, and write equivalent fractions of a given fractions, represented visually, including tenths and hundredths. Y5: Solve problems which require knowing percentage and decimal equivalents.	Use times tables understanding to identify equivalent fractions. Use common factors to aid simplifying fractions.
		6	Algebra		Y6: Use simple formulae. Y6: Express missing number problems algebraically.	Understand what algebra is. Identify and use simple formulae.
13	29.03.2021	5	Geometry	Y4: Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.	Y5: Identify 3D shapes, including cubes and cuboids, from 2-D representations. Y5: Use the properties of rectangles to deduce	Use 3-D shapes and use their names. Compare 2-D and 3-D representations. Identify properties of 3-D shapes.

				related facts and find missing lengths and angles.	
		6	Y5: Use the properties of rectangles to deduce related facts and find missing lengths and angles.	Y6: Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.	<p>Identify geometric shapes and their properties.</p> <p>Understand how many degrees are in a triangle, as well as its properties.</p> <p>Understand how many degrees are in quadrilaterals, as well as their properties.</p> <p>Understand how many degrees are in polygons, as well as their properties.</p>
Holiday					