

Maths Medium Term Overview – Year 5 & Year 6

AUTUMN TERM

WEEK 1			
TIME			
Time	Introduce roman numerals Tell the time on a clock with roman numerals Read years in roman numerals	Time	Use knowledge of roman numerals to tell the time and read/write dates.
Time	Calculate with time	Time	Calculate with time to solve problems
Time	Extract data from timetables	Time	Use data from timetables to solve problems
Time	Consolidation	Time	Consolidation
WEEK 2			
Number and Place Value – 3 Weeks			
Unit 1 Place Value within 1,000,000 (1)		Unit 1 Place Value within 10,000,000	
L2 Numbers to 10,000	Read and write numbers to 10,000 using words and numerals Represent numbers to 10,000 in different ways. Identify the value of a digit		Read, write and represent numbers to 10,000 and 100,000 Identify the value of a digit
L3 Numbers to 100,000	Read and write numbers to 100,000 using words and numerals. Represent numbers to 100,000 in different ways. Identify the value of a digit	L1 Numbers to 1,000,000	Read, write and represent numbers to 1,000,000 Identify the value of a digit
L4 Numbers to 1,000,000	Represent numbers to 1,000,000 in different ways	L2b Numbers to 10,000,000	Read, write and represent numbers to ten million Identify the value of a digit
L8 Partition numbers to 1,000,000	Use understanding of place value to solve number problems	L3 Partition numbers to 10,000,000	Use understanding of place value to partition numbers and solve problems in real-life contexts
L6 Powers of 10	Identify how many 10s/100s/1,000s there are in different multiples of 100 and 1,000 Understand the relationship between 1s, 10s, 100s, 1,000s, 10,000s and 100,000s	L4 Powers of 10	Express a number in different place value units e.g. that 20,000 is 200 hundreds, 2,000 tens or 20 thousands.
WEEK 3			
L7 10/100/1,000/10,000/100,000 more or less	Count forwards and backwards in steps of 10, 100, 1,000 and 10,000 Find 10, 100, 1,000 and 10,000 more or less than any given number	10/100/1,000/10,000/100,000/1,000,000/10,000,000 more or less	Find 10, 100, 1,000 10,000 1,000,000 10,000,000 more or less than any given number
Unit 2 Place Value within 1,000,000 (2)			
L1 Number line to 1,000,000	Use understanding of place value to help them accurately identify, or estimate, where a number up to 1,000,000 lies on a number line	L5 Number line to 10,000,000	Use understanding of place value to help them accurately identify, or estimate, where a number up to 10,000,000 lies on a number line
L2 Compare and order numbers to 100,000	Identify which digits need to be compared first and explaining what to do when the digits are the same. Use the signs < and > to show comparisons and order	L6a Compare and order any number	Identify which digits need to be compared first and explaining what to do when the digits are the same. Use the signs < and > to show comparisons and order
L3 Compare and order numbers to 1,000,000	use their understanding of place value and numbers up to 1,000,000 to compare and order numbers.	L6b Compare and order any number	Use their understanding of place value and numbers up to 10,000,000 to compare and

			order numbers. [Could extend by using Roman Numerals]
L4 Round numbers to the nearest 100,000	Round numbers to the nearest 10,000 using number lines	Round numbers to the nearest 100,000	Round numbers to the nearest 10,000
WEEK 4			
L5 Round numbers to the nearest 10,000	Round numbers to the nearest 100,000 using number lines	Round numbers to the nearest 10,000	Round numbers to the nearest 100,000
L6 Round numbers to the nearest 10, 100 and 1,000	Round numbers to the nearest 10, 100, 1000, 10,000 and 100,000 using number lines	L7 Round any number	Round any number Explain when rounding is appropriate and which power of 10 to round to in a given context.
Unit 15 Negative Numbers (start)			
L1 Understand negative numbers	Interpret negative numbers in context Count back through zero in ones	L8a Negative numbers	Identify negative numbers on a number line Understand and interpret negative numbers
L2 Count through zero	Count back through zero in different multiples Place negative numbers on a number line.	L8b Negative numbers	Find the difference between positive and negative numbers. Begin to calculate with negative numbers.
Addition and Subtraction			
Unit 3 Addition and Subtraction (start)		Unit 2 Four Operations (1)	
L3 Add whole numbers with more than 4 digits (1) L4 Add whole numbers with more than 4 digits (2) (use questions now or leave for a consolidation lesson)	Use column method to add numbers with more than 4 digits Explain my method using place value counters/grid	L1 Add integers	Use the column method to add whole numbers with up to five digits
WEEK 5			
L5 Subtract whole numbers with more than 4 digits (1)	Explain why exchanges are needed when subtracting Use column method to subtract numbers with more than 4 digits Explain my method using place value counters/grid	L2a Subtract integers	Using the column method for subtracting whole numbers
L6 Subtract whole numbers with more than 4 digits (2)	Lay out the formal written method neatly and accurately Subtract whole numbers where multiple exchanges are needed.	L2b Subtract integers	Using the column method for subtracting whole numbers
L7 Round to check answers	Use rounding to make estimates, find mistakes and check answers	Round to check answers	Apply my knowledge of rounding to make estimates, find mistakes and check answers
L8 Inverse operations (addition and subtraction)	Estimate and use inverse operations to check answers to a calculation	Inverse operations (addition and subtraction)	Estimate and use inverse operations to check answers to a calculation
L9 Multi-step addition and Subtraction problems (1)	Apply column addition and subtraction to problems	L3 Problem solving – addition and subtraction	Apply column addition and subtraction to problems
WEEK 6			
Multiplication and Division			
Unit 4 Multiplication and Division (1)			
L1 Multiples L2 Common multiples	Understand what a multiple is Identify multiples Begin to identify common multiples	L5 Common multiples	Identify common multiples Use this to help solve problems and puzzles
L3 Factors	Understand what a factor is Find factors of a number using multiplication and division	Factors	Find factors of a number Spot patterns in factors of numbers and use these to make generalisations and predictions
L4 Common factors	Identify common factors	L4 Common factors	Find common factors Use this to help solve problems and puzzles
Rules of divisibility	Recognise numbers that are divisible by 2,3, 5, 10,	L6 Rules of divisibility	Identify if a number is divisible by 2,3, 4, 5, 6, 10
L5 Prime numbers	Understand and identify prime numbers Use the vocabulary 'prime number', 'composite number'	L7 Primes to 100	Recognise and identify prime numbers

			Explain why 2 is the only even prime number and why 1 is not a prime number
WEEK 7			
L6 Square numbers	Recognise and represent square numbers pictorially Use squared notation	L8a Squares and cubes	Recognise, identify and calculate square numbers
L7 Cube numbers	Recognise and represent cubed numbers pictorially Use cubed notation	L8b Squares and cubes	Recognise, identify and calculate cube numbers
Unit 7 Multiplication and Division (2)		Unit 3 Four Operations (2)	
L1 Multiply a number up to 4 digits by a 1-digit number	Multiply numbers with up to 4 digits by a 1-digit number	L1 Multiply by a 1-digit number	Multiply a 4-digit number by a 1-digit number Demonstrate my thinking and understanding through multiple representations (including place value counters)
L2 Multiply 2-digit numbers (area model)	Multiply pairs of 2-digit numbers by partitioning the numbers and using an area model.	Multiply 2-digit numbers (area model)	Multiply pairs of 2-digit numbers by partitioning the numbers and using an area model.
L3 Multiply 2-digit numbers	Use long multiplication for multiplying 2-digit numbers Demonstrating understanding of how the numbers have been partitioned Demonstrate understanding of the place value of each digit	Multiply 2-digit numbers	Use long multiplication for multiplying 2-digit numbers Demonstrate an understanding of place value, partitioning numbers Apply known multiplication facts.
WEEK 8			
L4 Multiply a 3-digit number by a 2-digit number	Multiply a 3-digit number by a 2-digit number using grid method and long division	Multiply a 3-digit number by a 2-digit number	Use long multiplication to multiply a 3-digit by a 2-digit number Demonstrate an understanding of partitioning and place value Use known multiplication facts and addition methods.
L5 Multiply a 4-digit number by a 2-digit number	Multiply a 4-digit number by a 2-digit number using long multiplication	L2 Multiply up to a 4-digit number by a 2-digit number	Multiply a number with up to four digits by a 2-digit number Demonstrate my understanding through multiple representations (including grid method and long multiplication)
L6 Divide a number up to 4 digits by a 1-digit number (1)	Divide numbers up to a 4-digits by a 1-digit number using the short division method (no remainders no exchanging) Explain my thinking using place value counters/grid	Divide a number by a 1-digit number	Divide numbers up to a 4-digits by a 1-digit number using the short division method (no remainder) Apply my knowledge to solve problems
L7 Divide a number up to 4 digits by a 1-digit number (2)	Divide numbers up to a 4-digits by a 1-digit number using the short division method (some exchanging, no remainders) Explain my thinking using place value counters/grid	Divide a number by a 1-digit number	Divide numbers up to a 4-digits by a 1-digit number using the short division method (no remainder) Apply my knowledge to solve problems
L8 Divide with remainders	Divide numbers with up to 4 digits by a 1-digit number using the short division method where remainders occur in the answers	L3 Short division	Use the written method of short division to solve division calculations
WEEK 9			
L8 Multiply by 10, 100 and 1,000 (from Unit 4)	Apply understanding of place value to multiply whole numbers by 10, 100 and 1,000	L5 Divide a 3-digit number by 2-digit (long division)	Apply my knowledge of multiples to divide a 3-digit number by a 2-digit number using long division. Identify efficient methods (i.e subtract 20 groups of _ rather than subtracting 10 groups twice)

L9 Divide by 10, 100 and 1,000 (from Unit 4)	Apply understanding of place value to divide whole numbers by 10, 100 and 1,000	L6 Divide a 4-digit number by 2-digit (long division)	Use long division to divide by 2-digit numbers.
L10 Multiples of 10, 100 and 1,000 (from Unit 4)	Multiply numbers by multiples of 10, 100 and 1,000 using known multiplication facts	L7 Long division with remainders	Use long division to solve a division calculation that has a remainder Represent a remainder as a fraction
Consolidation		L8 Order of operations	Learn the correct order of operations and use this to help solve multi-step calculations
Consolidation		L9 Brackets	Solve calculations that include brackets

WEEK 10

Fractions

Unit 5 Fractions (1)		Unit 4 Fractions (1)	
L1 Equivalent fractions 1	Recognise and find equivalent fractions for a given fraction using manipulatives, pictures and abstract representations	Equivalent fractions	Recap equivalent fractions
L2 Equivalent fractions 2 – unit and non-unit fractions	Find and represent equivalent fractions using manipulatives, pictures and abstract representations	L1 Equivalent fractions and simplifying	Apply their knowledge of factors to use common factors to simplify fractions
L3 Equivalent fractions 3 – families of equivalent fractions	Recognise and find families of equivalent fractions for a given fraction	L2 Equivalent fractions on a number line	Count up and down fractional increases or decreases on a number line Find missing fractions in a sequence and place on a number line Write fractions on a number line in their simplest form
L4 Improper fractions to mixed numbers	Convert improper fractions to mixed numbers	Improper fractions to mixed numbers	Convert improper fractions to mixed numbers

WEEK 11

L5 Mixed numbers to improper fractions	Convert mixed numbers to improper fractions	Mixed numbers to improper fractions	Convert mixed numbers to improper fractions
L6 Compare fractions less than 1 L7 Order fractions less than 1	Use knowledge of equivalent fractions to compare and order them.	L3a Compare and order fractions	Compare and order more than two fractions by finding the LCM and comparing the numerators
L8 Compare and order fractions greater than 1	Compare and order mixed numbers by comparing the whole number parts first then the fraction parts.	L3b Compare and order fractions	Compare and order more than two fractions by finding the LCM and comparing the numerators

Unit 6 Fraction (2)

L1 Add and subtract fractions	Add and subtract fractions with the same denominator	L4 Add and subtract simple fractions	Add and subtract fractions with the same denominator Add and subtract fractions where one fraction has a denominator that is a multiple of the denominator of the other fraction
L2 Add fractions within 1	Add fractions where one denominator is a multiple of the other and where the answer does not exceed one whole	L5a Add and subtract any two fractions	Add and subtract fractions (within 1) by using a common multiple to create equivalent fractions with a common denominator

WEEK 12 – HODDER TEST WEEK

L3 Add fractions with total greater than 1	Find equivalent fractions with the same denominator and use this to add fractions Convert improper fractions into mixed numbers and vice-versa	L5b Add and subtract any two fractions	Add and subtract fractions (within 1) by using a common multiple to create equivalent fractions with a common denominator
L4 Add to a mixed number	Add mixed numbers and improper fractions (where one denominator is a multiple of the other) by first adding the whole	L6a Add mixed numbers	Add and subtract mixed numbers, either by adding or subtracting the wholes and fractional parts or by converting

	numbers and then adding the parts		to improper fractions and adding these
L5 Add two mixed numbers	Add pairs of mixed numbers by partition the mixed numbers into parts and wholes	L6b Add mixed numbers	Add and subtract mixed numbers, either by adding or subtracting the wholes and fractional parts or by converting to improper fractions and adding these
Consolidation		Consolidation	
Consolidation		Consolidation	
WEEK 13			
L6 Subtract fractions within 1	Subtract fractions where one denominator is a multiple of the other	L7 Subtract mixed numbers	Subtract mixed numbers by rewriting the calculation and subtracting the wholes and subtracting the fractions, or by converting to improper fractions
L7 Subtract from a mixed number	Subtract a proper fraction from a mixed number where the fraction parts have related denominators	L8 Multi-step problems	Solve problems that involve adding and subtracting mixed numbers and fractions
L8 Subtract from a mixed number – breaking the whole	Subtract fractions from mixed numbers where the subtraction crosses the whole by splitting the wholes into parts	L9 Problem solving - add and subtract fractions	solve problems that involve adding and subtracting mixed numbers and fractions and which have more than one step
L9 Subtract two mixed numbers	Subtract mixed numbers by subtracting the wholes and parts separately	Consolidation	
Consolidation		Consolidation	
Lessons that need a home – Use as consolidation lessons or in Summer2			
L5 Read and write 5- and 6-digit Numbers (from Unit 1)			
L1 Mental strategies (addition) (from Unit 3)			
L2 Mental strategies (subtraction) (from Unit 3)			
L4 Add whole numbers with more than 4 digits (2) (from Unit 3)	In a problem solving context		
L10 Multi-step addition and Subtraction problems (2) (from Unit 3)			
L11 Solve missing number problems (from Unit 3)		L4 Division using factors (from Unit 3)	Use factors of the divisor in order to divide efficiently
L12 Solve comparison problems (from Unit 3)		L10 Mental calculations (1) (from Unit 3)	
L10 Solve fraction problems (from Unit 6)		L11 Mental calculations (2) (from Unit 3)	
L11 Solve multi-step fraction problems (from Unit 6)		L12 Reason from known facts (from Unit 3)	
L9 Efficient division (from Unit 7)		Consolidation	
L10 Solve problems with multiplication and division (from Unit 7)			
L7 Using fractions as operators (from Unit 8)			

SPRING TERM

WEEK 1			
Fractions			
Unit 8 Fractions (3)		Unit 5 Fractions (2)	
L1 Multiply unit fractions by an integer	Multiply a whole number and a unit fraction together Demonstrate an understanding of why the	Multiply unit fractions by an integer	Recap lesson

	denominator stays the same		
L2 Multiply non-unit fractions by an integer	Multiply a whole number and a non-unit fraction together Demonstrate my understanding using diagrams.	Multiply non-unit fractions by an integer	Recap lesson
L3a Multiply mixed numbers by integers (1)	Begin to multiply a mixed number and whole number together Method 1 – convert the mixed number to an improper fraction before multiplying	L1 Multiply fractions by integers	multiply any fraction by a whole number, including improper fractions and mixed numbers
L3b Multiply mixed numbers by integers (1)	Multiply a mixed number and whole number together Method 1	L2a Multiply fractions by fractions (1)	Begin to multiply a fraction by a fraction by drawing diagrams, and express their answers in their simplest form understand that when a proper fraction is multiplied by a proper fraction the answer will be smaller
WEEK 2			
L4a Multiply mixed numbers by integers (2)	Begin to multiply a mixed number and whole number together Method 2 – multiplying the whole and parts separately	L2b Multiply fractions by fractions (1)	Multiply a fraction by a fraction by drawing diagrams, and express their answers in their simplest form understand that when a proper fraction is multiplied by a proper fraction the answer will be smaller
L4b Multiply mixed numbers by integers (2)	Multiply a mixed number and whole number together Method 2	L3 Multiply fractions by fractions (2)	Multiply together two or more fractions by multiplying the numerators and multiplying the denominators. explain their understanding
L5 Fraction of an amount	Find a non-unit fraction of an amount with and without diagrams	L8 Fraction of an amount	Find fractions of amounts involving unit and non-unit fractions by using a bar model. They can use the bar model to explain their understanding
L6 Finding the whole	Calculate the whole when a fraction of an amount is given	L9 Fraction of an amount – find the whole	Solve problems involving finding fractions of amounts, including problems where children have to find the whole

			given information about a part
Consolidation		L4 Divide a fraction by an integer (1)	Divide a non unit fraction by a whole number when the numerator is a multiple of the whole number
WEEK 3			
Consolidation		L5 Divide a fraction by an integer (2)	Divide unit fractions by a whole number using diagrams Describe the pattern between denominators and the number they are dividing by.
L7 Using fractions as operators		L6 Divide a fraction by an integer (3)	Divide any fraction by a whole number Understand what is happening when they are sharing a fraction and can use diagrams to explain their thinking
Ration and Proportion – 2 Weeks			
		Unit 7 Ration and proportion	
Use ratio language	recognise and describe simple ratios	L1 Use ratio language	recognise and describe simple ratios
Introduce the ratio symbol	Begin to use the ratio symbol. Begin to compare ratios, explore different representations of ratio and identify ratios from given amounts or diagrams	L2 Introduce the ratio symbol	Use the ratio symbol. Compare ratios, explore different representations of ratio and identify ratios from given amounts or diagrams
Consolidation	Consolidate understanding of ratio symbol to recognise, describe and compare simple ratios.	L3 Use ratio	use ratios to calculate totals and amounts and will consider the different methods that can be used
WEEK 4			
Scale drawings	Begin to interpret and understand scales used on maps and plans Begin to measure lines on the map or plan and calculate the length in real life	L4 Scale drawing	Interpret and understand scales used on maps and plans Measure lines on the map or plan and calculate the length in real life
Scale factors	Begin to find and use scale factors in a practical way	L5 Scale factors	Find the scale factor Apply the scale factor to calculate further measurements
Similar shapes	Understand that similar shapes have the same proportions. Draw similar shapes	L6 Similar shapes	Explain that similar shapes have the same proportions Identify if shapes are similar, deduce scale

			factors and draw similar shapes
Consolidation		L7 Ratio problems	Use ratios to deduce quantities Use a variety of methods and representations, including counters, diagrams, tables and bar models, and can explain what the representations mean
Consolidation		L8 Problem solving- ratio and proportion (1)	Solve problems involving proportion where the scale is not a whole number

WEEK 5

Decimals and Percentages

Unit 9 Decimals and Percentages		Unit 9 Decimals	
L1&2 Write decimals up to 2dp – less than 1, greater than 1	Read, write and explain decimal numbers (up to two decimal places) using place value counters and number lines. (<i>and base 10 blocks</i>)	L1 Place value to 3dp	Read, write and understand the place value of digits in a decimal number with up to 3dp
L3 Equivalent fractions and decimals - tenths	Read and write simple decimal numbers. Understand what each digit represents. Write decimals as fractions, such as tenths, quarters and halves	Decimals as fractions	Revisit
L4 Equivalent fractions and decimals - hundredths	Read and write more complex decimal numbers as fractions. Understand zero as a place holder.	Decimals as fractions	Revisit
L5 Equivalent fractions and decimals	Convert freely between fractions and decimals containing tenths, hundredths or both	L8 Fractions to decimals	Convert fractions to decimals and decimals to fractions where the denominator is a power of 10
Add and subtract decimals	Add and subtract decimals to 2dp with no exchange (e.g. in the context of money)	L3 Add and subtract decimals	Add or subtract decimal numbers using columns when appropriate.

WEEK 6

Multiply by 10 (and 100)	Multiply decimals by 10 understanding why the digits move to a higher place value column.	L4 Multiply by 10, 100 and 1,000	Multiply decimals by powers of 10, understanding how and why digits move to a higher place value column
Divide by 10	Divide decimals by 10 (within 2dp)	L5 Divide by 10, 100 and 1,000	Divide by powers of 10 Explain why the digits move to the right.
L6 Thousandths as fractions	Introduced thousandths Recognise that, if the whole has been split into 1,000 equal parts, then	L6 Multiply decimals by integers	Multiply a decimal by a whole number

	each part is worth 1 thousandth		
L8 Thousandths on a place value grid (L7 Thousandths as decimals)	Write thousandths as decimals and understand the size of thousandths relative to tenths and hundredths Represent numbers with up to 3 decimal places on a place value grid and identify the value of any given digit in the number	L7 Divide decimals by integers	Divide a decimal by a whole number Identify related division facts, explain how to divide decimals through exchanging and sharing
L9 Compare and order decimals – same number of decimal places	compare decimals by using their knowledge of place value or converting them into fractions	L9 Fractions as division	Calculate the decimal equivalents of fractions by dividing the numerator by the denominator
WEEK 7			
L11 Round to the nearest whole number	Round decimals to the nearest whole number	L2 Round decimals	Round numbers to 1 or 2 decimal places
WEEK 8			
WEEK 9			
WEEK 10			
Lessons that need a home			
L10 Compare and order any decimals with up to 3dp (from Unit 9)		L7 Mixed questions with fractions (from unit 5)	Solve fraction problems involving addition, subtraction, multiplication and division Use the order of operations and visual aids such as bar models to

			support their understanding
L12 Round to 1dp (from Unit 9)		L9 Problem solving – ratio and propotion (2) (from unit 7)	Solve a range of problems involving ratio, including 2-step problems

SUMMER

WEEK 1			
WEEK 2			
WEEK 3			
WEEK 4			
Time			
WEEK 5			
WEEK 6			
WEEK 7			

