Year 3 Maths Medium Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Term 1	*Number and place value* To represent 3 digit numbers (concrete) To find 1, 10 or 100 more than a given number (concrete). To recognise the place value of each digit in a three digit number.	*Addition* To use partitioning to add To use a number line for addition To solve missing number problems To add a three digit number and ones without regrouping (see progression year2)	*Subtraction* To find the difference using a number line (for near numbers) To use number bonds to subtract mentally (see mental strategies below for progression and next page for exemplification) To subtract without regrouping (see year 2)	*Multiplication* To use number bonds for factors and products To understand how place value changes when multiplying by 10 To calculate two digit numbers multiplied by one digit numbers	*Division* To use number bonds for factor and products (using multiples of 3,4 and 8) To identify missing factors To derive related division facts from known multiplication facts To use the distributive property strategy to divide 'friendly' numbers.	*Measure – Time* Tell and write the time from an analogue clock (standard clock and with Roman numerals). To match digital and analogue clocks.	*Revise any skills. Ensure place value is secure.*
	>To count in multiples of 6,7 and 9 **> To count in multiples of 25 and 1000** **>To count backwards through zero to negative numbers.** **>To find 1,10, 100, 1000 more than any given number (with 4 or more digits)** **> To find 1,10, 100, 1000 less than any given number (with 4 or more digits)** **>To multiply by 10, 100 and 1000 (understanding that digits move to the left when multiplied by 10...).** **>To know what the value of each digit is up to 10,000.**	**>Rapid recall of all addition facts up to and including 20 >Derive quickly addition doubles from 1+1 to 20+20 e.g. 19+19=38 >Doubles of multiples of 5 from 5+5 to 100+100 e.g. 95+95 = 190** **>Derive quickly pairs of multiples of 5 that total 100: e.g. 65 + 35 >Know by heart all multiples of 100 that total 1000: e.g. 400 + 600 = 1000** **>Add several numbers by: making ten & adjusting.** **>Use number bonds to mentally subtract a 1-digit number from: -a 2-digit number within 100 with or without regrouping.** **> Subtract a single digit from a multiple of 100.** **>Subtract a pair of multiples of 10, crossing 100.**	**>Partition and recombine: e.g. 24 + 35 = 20 + 30 + 4 + 5 = 59** **>Identify the corresponding subtraction facts. e.g. 22+57 = 79 and 79-57=22 etc.** **>Add a two-digit number to a multiple of 100.e.g. 200+64** **>Add a two-digit number to a multiple of 10 crossing 100. e.g. 80 + 34 = 114** **>Subtract a multiple of 10 from a 2 digit number crossing 100** **>Subtract a pair of multiples of 100 crossing 1000** **>Subtract 100 from any 3 digit number, without crossing 1000** **>Consolidate subtracting a single digit from a 'teens' number, crossing 10 (use two steps and cross ten as the middle stage: 15-8 = 7**	**>Rapid recall of 3, 4 and 8 times tables** **>Count forwards and backwards in 3s from any given number.** **>Count forwards and backwards in 4s from any given number.** **>Count forwards and backwards in 8s from any given number.** **>To use the 2,5 and 10 times table to derive other multiplication facts** **> To know doubles of all numbers up to 50**	**>To use number bonds for factor and products (using multiples of 3,4 and 8)** **>To identify missing factors** **> To derive related division facts from known multiplication facts** **>To use the distributive property strategy to divide 'friendly' numbers.** **>To divide a two digit number by a one digit number (in concrete with and without remainders).**	**>To know the number of seconds in a minute.** **>To know the number of days in each months.** **>To know the number of days in a year and leap year. (365 days, 52 weeks or 12 months)** **>To know own date of birth and say who is older/younger.** **>To count around the clock in 5s.** **>To know the days of the week, months and seasons in order.**	

			I know this because 15-5-3 = 10-3= 7) >Find pairs of numbers with a difference of 29, 16…				
Term 2	*Fractions, decimals and percentages* To identify unit fractions of objects, shapes and length. (a unit fraction has 1 as the numerator) To identify non-unit fractions of objects, shapes and length. (a non-unit fraction has >1 as the numerator) To calculate fractions of a quantity	*Fractions, decimals and percentages* To recognise equivalent fractions To recognise that tenths arise from dividing an object into ten equal parts	*Geometry – Properties of Shapes* To draw and describe 2-D shapes (reflective symmetry, regular, irregular) To make 3-D shapes using modelling materials. To recognise 3-D shapes in different orientations.	*Statistics* To interpret and present data using bar charts To interpret and present data using pictograms To interpret and present data using tables	*Measure – volume and capacity* To measure and compare volume in l/ml.	*Measure – length and mass* To measure and compare lengths in m, cm and mm. To measure and compare mass in Kg and g.	*Four operations-context volume, capacity, length and mass* To use multiplication and division to scale by integers. To solve measurement problems using both addition and subtraction.
	>To identify unit fractions of objects, shapes and length. (a unit fraction has 1 as the numerator) > To identify non-unit fractions of objects, shapes and length. (a non-unit fraction has >1 as the numerator) To calculate fractions of a quantity To recognise equivalent fractions.	**>To identify unit fractions of objects, shapes and length. (a unit fraction has 1 as the numerator) > To identify non-unit fractions of objects, shapes and length. (a non-unit fraction has >1 as the numerator) To calculate fractions of a quantity To recognise equivalent fractions.**	**> To know the names of 2D shapes and 3D shapes > To verbally explain the properties of 3D shapes.**	**>To count 'up' a counting stick in intervals of 1, 2, 5, 10 >To count up a counting stick in intervals of any number. >To quickly count up scores when voting takes place. Respond to questions: How can we find out? >What information shall we collect and how? How shall we organise it? >To hypothesise: How would the graph be different if … (in relation to travel to school) it were a wet day December If there were no buses? If we asked year six**	**>To be able to multiply and divide with powers of ten. >Revise other mental maths skills from Y3.**	**>To be able to multiply and divide with powers of ten. >Revise other mental maths skills from Y3.**	
Term 3	*Number and place value –* To use part, part whole to partition numbers in different ways. To compare numbers up to 1000 To order numbers up to 1000	*Geometry – Properties of Shapes* To measure and calculate perimeter of 2D shapes.. To recognise angles as a property of shape. To identify angles in the environment.	*Fractions, decimals and percentages –* To compare fractions (fractions with the same denominator) To order fractions (fractions with the same denominator)	*Fractions, decimals and percentages –* To recognise equivalent fractions (see exemplification year 4)	*Addition and subtraction –* To add a three digit number and tens without regrouping (see progression year2) To add 2 three-digit numbers without regrouping To add three-digit numbers with regrouping (revert to expanded method if tricky)	*Multiplication and division –* To carry out short multiplication without regrouping To carry out short multiplication with regrouping in ones, tens and hundreds	

		To recognise angles as a description of a turn. (half turn, three quarters turn, 360') To identify right angles, linking to turns and identifying >< = right angles. (acute, obtuse)	To compare fractions with different denominators		To subtract with regrouping in tens and ones To subtract a 3 digit number with regrouping in hundreds and tens To subtract a 3 digit number with regrouping in hundreds, tens and ones	To divide a two digit number by a one digit number (in concrete with and without remainders) To divide a two digit number by a one digit number using short division (no remainders)	
	> To count on from any given number crossing boundaries (count on 7 in ones from 669, 70 in tens from 669, 700 in hundreds from 669, 7000 in thousands from 2669). **>To round any two or three digit number to the nearest 10 or 100.** **>To round measurements in seconds, minutes, hours, metres, kilometres, litres to the nearest 10 or 100.**	**> To know the names of 2D and 3D shapes.** **> To be able to describe their properties.** **>To know the names of different types of angles.**	**>To recognise that tenths arise from dividing an object into ten equal parts** **>To compare fractions (fractions with the same denominator)** **> To order fractions (fractions with the same denominator)** **> To compare fractions with different denominators** **>To recognise equivalent fractions (see exemplification year 4)**	***Review Term 2 fraction mental maths skills.***	**Rehearse addition, subtraction mental maths skills from Term 1.**	**>To know doubles of all multiples of 5 up to 100** **>Observe the effect of multiplying by 10 Multiply any single digit by 1, 10, 100 and 0** **>Multiply a two digit number by 2, 3, 4, or 5 without crossing the tens boundary. (11x5, 23x2)** **>Check halving with doubling** **>To multiply multiples of 10 with 1 digit number.** **>To divide a two digit number by a one digit number using short division (no remainders)** **> To solve problems where items are shared equally (12 sweets between 4 children)** **> To solve problems where items are shared using knowledge of fractions (4 cakes shared between 8 children)** **>To know whether to round up or down depending on context.**	

Term 4	*Statistics –* To recognise importance of titles and labels when sorting data To solve one step questions using statistical information. To solve two step questions using statistical information	*Measure – money* To calculate change given in both £ and p	*Four operations – money* To add three-digit numbers with regrouping (revert to expanded method if tricky) To subtract a 3 digit number with regrouping in hundreds, tens and ones To divide a two digit number by a one digit number using short division (no remainders) To carry out short multiplication with regrouping in ones, tens and hundreds	*Measure - time* To read and record time to the nearest minute. To compare time in seconds, minutes and hours. To convert hours and minutes. To calculate and compare duration of events.	*Four operations –* To add three-digit numbers with regrouping (revert to expanded method if tricky) To subtract a 3 digit number with regrouping in hundreds, tens and ones To divide a two digit number by a one digit number using short division (no remainders) To carry out short multiplication with regrouping in ones, tens and hundreds *Word problems*	*Four operations* To add three-digit numbers with regrouping (revert to expanded method if tricky) To subtract a 3 digit number with regrouping in hundreds, tens and ones To divide a two digit number by a one digit number using short division (no remainders) To carry out short multiplication with regrouping in ones, tens and hundreds *Word problems*	
	See statistics mental maths skills from prior learning.	**>To use decimal notation for money. (How many pence is £9.05? What is 465p in £ and pence?) >To find totals and give change: It costs 75p for a child to swim. How much does it cost for two children? -A set of paint costs £3. Parveen saves 20p a week. How many weeks must she save to buy the paints? - Dad bought three packets of biscuits at 70p each. What was his change from £3? >To know what to buy and how to pay: Which 5 coins make 74p? What other amounts can you make with 5 diff coins?**	**>To use decimal notation for money. (How many pence is £9.05? What is 465p in £ and pence?) >To find totals and give change: It costs 75p for a child to swim. How much does it cost for two children? -A set of paint costs £3. Parveen saves 20p a week. How many weeks must she save to buy the paints? - Dad bought three packets of biscuits at 70p each. What was his change from £3? >To know what to buy and how to pay: Which 5 coins make 74p? What other amounts can you make with 5 diff coins?**	*See mental maths skills from prior time unit.*	*Rehearse addition, subtraction, multiplication and division mental maths skills.*		
Term 5	*Number and place value –*	*Addition and subtraction –*	*Multiplication and division –*	*Fractions, decimals and percentages –*	*Fractions, decimals and percentages –*	*Fractions, decimals and percentages –*	

	Identify, represent and estimate numbers up to 1000 in numerals and words. To recognise the place value of different measures. To use dienes and coins to understand place value.	To add using place value counters To develop and recognise patterns in addition To estimate the answer to a calculation To solve word problems To count back to find the difference To estimate the answer to a calculation To use inverse operations to check answers To subtract 'taking away' one set using the bar model To subtract 'comparing two sets' using the bar model	To understand measuring and scaling problems To solve problems where items are shared equally (12 sweets between 4 children) To solve problems where items are shared using knowledge of fractions (4 cakes shared between 8 children) To know whether to round up or down depending on context.	To add like fractions (fractions with the same denominator) To subtract like fractions	To solve word problems involving fractions	To solve word problems involving fractions	
	>Estimate calculations by approximating. (608+297 = 610+300= approximately 910) **>Approximate multiplications (19x16 = 20x16 = (2x16) x10= 320)** **>Extend and explain number sequences (48, 41, 34, 27…) continuing beyond zero.** **>To notice a pattern when counting from zero in 2s, 4s then 8s (4s are double 2s, 8s are double 4s)** **>To recognise odd and even numbers up to 10,000 and make general**	**>Add 10 to any number crossing the hundreds boundary. e.g. 196 + 10 >Add a pair of multiples of 10, crossing 100. e.g. 90 + □ = 130** **>Add pairs of multiples of 100 crossing 1000. e.g. 500 + 800** **>Add 100 to any 3 digit number, without crossing 1000** **>Find the difference between two numbers that are close together by counting up** **>Mentally subtract 9,19,29… or 11,21,31 from any two digit number without crossing 100.** **> Develop and recognise a pattern**	**Revisit mental maths skills for multiplication and division from previous terms.**	**>To add like fractions (fractions with the same denominator)** **>To subtract like fractions** **>To solve word problems involving fractions**	***Review Term 2 & 3 fraction mental maths skills.***	***Review Term 2 & 3 fraction mental maths skills.***	

	statements about them. (if you add odd numbers the answer is even. Check. Explain why?)						
Term 6	*Measure – volume and capacity* To measure and compare volume in l/ml.	*Four operations – volume and capacity* To convert between different units of measure.	*Measure – length and mass* To measure and compare lengths in m, cm and mm. To measure and compare mass in Kg and g.	*Four operations – length and mass* To convert between different units of measure.	***Time*** *Comparing durations of events.*	*Statistics –* To understand and use simple scales. To classify shapes, numbers and objects into a Venn diagram. To classify shapes, numbers and objects into a Carroll diagram.	*Geometry –* To sort symmetrical and non-symmetrical polygons and polyhedra. To connect decimals and rounding to drawing and measuring straight lines. To identify horizontal and vertical lines. To identify pairs of perpendicular and parallel lines.
	>Conversion facts. >Multiplying and dividing by powers of 10.	**>Conversion facts. >Multiplying and dividing by powers of 10.**	**>To solve measurement problems in context: Two rolls of tape are 35cm and 41cm. Total? Difference? - An egg weighs 50 grams. How much would six eggs weigh? - A big potato weighs 1/4 kg. What would be the weight of 10 potatoes? - A bottle holds 35ml of medicine. A teaspoon holds 5ml. How many teaspoons of medicine in the bottle?**	**>Revise other mental maths skills from Y3**	**>To know the number of seconds in a minute. >To know the number of days in each months. >To know the number of days in a year and leap year. (365 days, 52 weeks or 12 months) >To know own date of birth and say who is older/younger. >To count around the clock in 5s. >To know the days of the week, months and seasons in order.**	**>To count 'up' a counting stick in intervals of 1, 2, 5, 10 >To count up a counting stick in intervals of any number. >To quickly count up scores when voting takes place. Respond to questions: How can we find out? >What information shall we collect and how? How shall we organise it? >To hypothesise: How would the graph be different if … (in relation to travel to school) it were a wet day December If there**	**> A game…Parallelogram, concave hexagon, obtuse triangle, isosceles triangle, kite, arrowhead, scalene triangle, rectangle, rhombus, isosceles trapezium, arrowhead, concave quadrilateral, and so on… Put the cards in a pile A member of team A picks a card from the top They describe the properties of the shape, without using the words on the card. The first person to say the correct shape wins a point If they give the wrong shape the other team/s has a go Each person is allowed**

						were no buses? If we asked year six	one guess per round, the game going on until each person or team has had a guess Then the next team and so on choose the next card… >The game can be extended to include other shapes, solids etc… It could be adapted to a two-team or "Twenty Question" scenario: Has it got 4 sides? Does it have parallel sides? And so on… >It can also be adapted so that the person at the front of the class describes the shape and other students attempt to draw the shape.