2023/2024

## Long Term Planning

The National Curriculum for Mathematics 2014, Development Matters and the Early Learning Goals (Number, Shape Space & Measure) provide the basis for long term planning for mathematics taught in the school.

The Year 1, 2, 3, 4 and 6 LTP is taken from the NCETM Mastery Curriculum Prioritisation materials. Additional resources can be found on the NCETM website. Teachers should draw on the experience of the Headteacher and staff members who have received mastery training. All teachers will receive additional mastery training throughout the year. In addition, the Mastering Number programme will delivered to EYFS, KS1 and KS2 throughout the year.

The Year 5 LTP is taken from the White Rose maths hub overviews, which are based on the national curriculum objectives, and their lesson overviews are used to inform MTP. The LTP is used as a guidance tool in order to pace out coverage of the curriculum throughout the year. Although the whole year is planned out, teachers are encouraged to use professional discretion when deciding on how long is needed on a particular curriculum area whilst ensuring all objectives are covered by the end of the academic year.

## **Medium Term Planning**

Medium term planning (MTP) is based on the NCETM's PD materials. This planning overview will enable staff to build up the skills that the children need and should be adapted to suit the needs of your current class. The MTP will be used by staff to help them write their short-term plan. Key questions, activities and vocabulary should be included along with prior learning and curricular targets.

## **Short Term Planning**

Short term planning (STP) is recorded each week on the lesson flipcharts/PowerPoints/Smart slides. These plans will include aspects such as: learning objectives to be taught that week; key vocabulary identified and taught; opportunities for pupils to carry out intelligent practise. A range of representations (see PD materials) should be used to help children to develop their understanding of concepts.

Books are monitored by the Maths co-ordinator throughout the term and feedback is provided.

## **Differentiation**

We will follow a whole class teaching approach. The same content will be taught to the whole class. The Teaching for Mastery approach will provide scaffolding to support children to access the activities. A keep-up intervention strategy will be put in place to prevent gaps in learning from increasing. Pupils who require additional support to understand a concept will be identified and caught up before the next lesson in the sequence. Children with special educational needs in mathematics are supported to enable them to achieve their learning objective. Differentiated activities across the school will take account of the children's differing needs and abilities.

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	Show 'finger numbers' up to 5. Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc.	Recite numbers past 5. Understand position through words alone – for example, "The bag is under the table," – with no pointing. Discuss routes and locations, using words like 'in front of' and 'behind' Combine shapes to make new ones – an arch, a bigger triangle, etc. Begin to describe a sequence of events, real or fictional, using words such	Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').	Say one number for each item in order: 1,2,3,4,5. Solve real world mathematical problems with numbers up to 5. Make comparisons between objects relating to size, length, weight and capacity. Extend and create ABAB patterns – stick, leaf, stick, leaf.	Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. Describe a familiar route. Notice and correct an error in a repeating pattern.	Experiment with their own symbols and marks as well as numerals. Compare quantities using language: 'more than', 'fewer than' Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.
Reception	5		Pupils will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals. Pupils will: • continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals • begin to identify missing parts for numbers within 5 • explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian number frame • focus on equal and unequal groups when comparing numbers • understand that two equal groups can be called a 'double' and connect this to finger patterns • sort odd and even numbers according to their 'shape' • continue to develop their understanding of the counting sequence and link cardinality and ordinality through the 'staircase' pattern • order numbers and play track games • join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers		Pupils will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice. Pupils will: • continue to develop their counting skills, counting larger sets as well as counting actions and sounds • explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame • compare quantities and numbers, including sets of objects which have different attributes • continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2# • begin to generalise about 'one more than' and 'one less than' numbers within 10 • continue to identify when sets can be subitised and when counting is necessary • develop conceptual subitising skills including when using a rekenrek.	

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Year 1	Previous Reception	Comparison of quantities	Recognise, compose,	Additive structures:	Numbers 0 – 20	Unitising and coin
	experiences and counting within 100	and part-whole relationships	decompose and manipulate 2D and 3D	introduction to augmentation and	Unitising and coin	recognition
	within 100	relationships	shapes.	reduction	recognition	Position and direction
		Numbers 0 - 5	shapes.	reduction	recognition	r osition and direction
	Mastering Number		Number 0 - 10			Time
	C			Addition and subtraction:	Mastering Number	
		Mastering Number		strategies within 10	_	Mastering Number
			Mastering Number			
				Mastering Number		
Year 2	Numbers 10 to 100	Fluently add and subtract	Introduction to	Shape	Money	Subtraction – two-digit and
		within 10	multiplication		E se altra se	two-digit numbers
	Calculations within 20	Addition and subtraction of	Introduction to division	Addition and subtraction of	Fractions	Fractions
	Mastering Number	Addition and subtraction of two-digit numbers	Introduction to division structures	two-digit numbers	Time	Fractions
	Mastering Number	two-digit numbers	structures	Mastering Number	Time	Mastering Number
		Mastering Number	Mastering Number	Mustering Number	Position and direction	Mustering Number
					Mastering Number	
Year 3	Adding and subtracting	Numbers to 1,000	Right angles	Recap column addition	Unit fractions	Non-unit fractions
ieai 5	across 10					
		Column addition	Manipulating the additive	2, 4, 8 times tables	Mastering Number	Parallel and perpendicular
	Numbers to 1,000		relationships and securing			sides in polygons
			mental calculation	Column subtraction		
	Mastering Number	Mastering Number				Time
			Mastering Number	Mastering Number		Mastering Number
Neer A	Review of column addition	Perimeter	7 times table and patterns	Understanding and	Review of fractions	Symmetry in 2D shapes
Year 4	and subtraction			manipulating multiplicative		-,,,
		3, 6, 9 times tables	Understanding and	relationships	Fractions greater than 1	Time
	Numbers to 10,000		manipulating multiplicative			
			relationships	Coordinates	Mastering Number	Division with reaminders
	Perimeter	Mastering Number				
			Mastering Number	Mastering Number		Mastering Number
	Mastering Number					
	Number – Place Value (3	Statistics (1 week)	Number –	Number – Fractions	Number: Decimals (4	Geometry- position and
Year 5	weeks)	<ul> <li>Solve comparison,</li> </ul>	Multiplication and	continued	weeks)	direction ( 1 week)
	Read, write, order and	sum and difference	Division (3 weeks)		Solve problems	<ul> <li>Identify, describe</li> </ul>
	compare numbers to	problems using	Multiply and divide		involving number up	and represent the
	at least 1000000 and	information	numbers mentally	Number: Decimals and	to three decimal	position of a shape
	determine the value of	presented in a line	drawing upon known	Percentages (2 weeks)	places.	following a reflection
	<ul><li>each digit.</li><li>Count forwards or</li></ul>	graph.	facts.	<ul> <li>Read, write, order and compare</li> </ul>	<ul> <li>Multiply and divide whole numbers and</li> </ul>	or translation, using the appropriate
	<ul> <li>Count forwards of backwards in steps of</li> </ul>	<ul> <li>Complete, read and interpret information</li> </ul>	<ul> <li>Multiply numbers up to 4 digits by a one</li> </ul>	and compare numbers with up to	those involving	the appropriate language, and know
	powers of 10 for any	in tables including	or two digit number	three decimal	decimals by 10, 100	that the shape has
	given number up to	timetables.	using a formal	places.	and 1000.	not changed.
	1000000.		written method,	Recognise and use		
	Interpret negative	Number –	including long	thousandths and	operations to solve	Measurement-
	numbers in context,	multiplication and	multiplication for 2	relate them to	problems involving	converting units (2
	count forwards and backwards with	division ( 2 weeks)	<ul><li>digit numbers.</li><li>Divide numbers up</li></ul>	tenths, hundredths and decimal	measure [for	<ul> <li>weeks)</li> <li>Convert between</li> </ul>
	backwards with positive and negative		<ul> <li>Divide numbers up to 4 digits by a one</li> </ul>	equivalents.	example, length, mass, volume,	<ul> <li>Convent between different units of</li> </ul>
					mass, volume,	

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<ul> <li>Round any number up to facts. Multiply and divide numbers by 10,100 and the numbers by numbers and the numbers by numbers and the numbers and the numbers by numbers and the numbers by numbers and the numbers by numbers and the numbers by numb</li></ul>	8 8					
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<ul> <li>Solve number practical problems and make involve all of the above.</li> <li>Read Roman numerals to 1000 (M) advison and as humbers.</li> <li>Recognise and use numbers in numerals.</li> <li>Number Addition and subtraction U2 weeks)</li> <li>Add and subtract numbers.</li> <li>Berimeter and Area 12 website and members.</li> <li>Add and subtract numbers.</li> <li>Berimeter and Area 12 website including strates and duben subtraction numbers.</li> <li>Berimeter and Area 12 website including strates and why.</li> </ul>		10, 100 and 1000.			Shapes and Angles	approximate
<ul> <li>problems market</li> <li>problems market</li> <li>Production problems and use the county of the sector of t</li></ul>	100000.	<ul> <li>Identify multiples</li> </ul>	•	to three decimal		equivalences
<ul> <li>problems and problems and problems of a mutiplexition and subtraction. In runder, failed of the cubic source in the source function for working converting measured and mutiplexition and subtraction. It was a decremation of the cubic source function for working converting measured and mutiplexition and subtraction for calculations and decremation and subtraction for working using functions and measured and mutiplexition and subtraction for calculations and decremation for working using functions and measured and mutiplexition mutiplexition for working and measured and mutiplexition mutiplexition for working and measured and mutiplexition mutiplexitin mutiplexition mutiplexitin mutiplexitin mutiplexition mutip</li></ul>	Solve number	and factors,	involving addition	places.	<ul> <li>Identify 3D shapes.</li> </ul>	between metric units
<ul> <li>practical problems that involve all of the second se</li></ul>	problems and	including finding all	and subtraction,	Recognise the per		and common
<ul> <li>that involve all of the above.</li> <li>Read Roman numerals 0.1000 Ministry of parts parts of the numbers and recognise years wither in Roman numerals.</li> <li>Number - Addition and motions of the notation of the not</li></ul>	practical problems		multiplication and			imperial units such
<ul> <li>above:.</li> <li>Read Roman numeraits 1000 (M) and recognise yeak recognises and subtract numbers and numeraits.</li> <li>Number: Addition and subtract numbers and the notation for squared (2) and and subtract numbers and numbers withe numbers and determine, in the context of a problem is notation. If actions and methods to use and subtraction multi-step problems in contexts, deciding which operations and methods to use and subtract numbers and methods to use and subtract on multi-sep problems in contexts, deciding which operations and methods to use and subtract on multi-sep problems in contexts, deciding which operations and methods to use and subtract on multi-sep problems in contexts, deciding which operations and methods to use and subtract on multi-sep problems in contexts, deciding which operations and methods to use and methods to use and methods to use and methods to use and methods users in contexts, deciding which operations and methods to use and methods to use and methods to use and methods users in contexts, deciding which operations and methods to use and</li></ul>	that involve all of the	•	division and a			as inches, pounds
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<ul> <li>Add and subtrat numbers mentally large numbers.</li> <li>Add and subtrat whole numbers with increasing large and division including using of mail with increasing large and division including using of mail with increasing large and division including using of mail with increasing term and multiples of the same number.</li> <li>Add and subtrat whole numbers with and subtrat whole numbers and division and division including using format and subtrat including using format and subtrat of the numbers, prime numbers, prime numbers, prime numbers, prime numbers, prime numbers, prime numbers, and etermine, in the context of a problem, in contexts, deciding which operations and why.</li> <li>Establish whether and subtract frequence of composite (not-ing and subtraction and why.</li> <li>Berimeter and Area (2 Weeks)</li> <li>Massure and calculate the perimeter of composite (including squares), and including using squares and central is deal with and denominator of a subtract frequence of the same number.</li> <li>Add and subtract methods and write neare of recalls and composite (not-ing squares), and including using squares and compare that are unitiples of so that are and netroding squares (not-ing and composite (not-</li></ul>				•	1 70	
<ul> <li>Add and subtraction multi-step problems in orbits statements y in a determined in degrees and multiples of she same number.</li> <li>Add and subtraction with a digits in including using of their squares and cubes.</li> <li>Know and use the vocabulary of prime name stuttraction of a given fractions and one whole turn (total 300°), angles at a point and one whole turn (total 300°), angles at a point on a straight line and 3 a turn (total 180°) other multiples of 90°.</li> <li>Solve addition and which operations and methods to use and why.</li> <li>Perimeter and Area (2 weeks) and easard the given fractions and one monitors and denominators and determine, in the generation multi-step problems in contexts, and calculate the perimeter of composite rectiliners shapes in composite (including squares), and including unipses and and denominators and determinators and determinators and determinators and the area of rectalliners and subtractions with the area of rectalliners shapes in composite (including squares), and including unipses and due to the same number.</li> <li>Add and multiples of the same numbers by whole numbers by whole numbers by whole numbers.</li> </ul>			•			
<ul> <li>during using formal with increasingly large numbers.</li> <li>Add and subtract whole numbers with increasingly large numbers.</li> <li>Add and subtract whole numbers with increasingly large numbers.</li> <li>Know and use the knowledge of factors and multiples.</li> <li>Know and use the vocabulary of prime numbers, prime numbers, prime numbers, prime numbers, prime numbers.</li> <li>Establish whether a determine, in the context, determine, in the context of a problem, incontexts, deciding which operations and methods to use and why.</li> <li><i>Perimeter and Area (2 weeks)</i></li> <li>Measure and why.</li> <li><i>Perimeter and Area (2 weeks)</i></li> <li>Measure and multiples of the area of rectanges (including squares), and methods to use and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of rectanges (including squares), and muttiples of the area of integral and on the area of rectanges (including squares), and muttiples of the area of integral and on the area of integral and and on the area of integral and and on the area of integral and and and the area of integral and and and the area of in</li></ul>		5				
<ul> <li>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columar addition and subtraction) Use rounding to check answers to calculations and why.</li> <li>Definition and subtract fractions with a mumbers up to calculations and why.</li> <li>Definition and subtract fractions with a sume number, squares and cubes;</li> <li>Use nitify, name and write equivalent fractions of a given fractions with a denominator of a multiple of 10 or 25.</li> <li>There may be the fractions with a denominator of a multiple of 10 or 25.</li> <li>Derw given angles, and measured the fractions with a denominator of a multiple of 10 or 25.</li> <li>Derw given angles, and measured fractions with a denominator of a multiple of 10 or 25.</li> <li>Derw given angles, and measure the numbers up to 19.</li> <li>Establish whether and methods to use and why.</li> <li>Perimeter and Area (2 weeks)</li> <li>Measure and calculate on mand m. Calculate and compare the area of rectangles (including squares), and units, eng. m2 estimate and methods to use and withy.</li> <li>Measure and calculate and compare the area of rectangles (including squares), and units, eng. m2 estimate and mumber.</li> <li>Add and subtract fractions with the same number.</li> <li>Add and subtract fractions an mixed number, supporter and denominator and denominator and denominator and denominator</li> <li>Add and subtract fractions an mixed number, supporter and denominator</li> <li>Add and subtract fractions and mixed numbers, supporter</li> <li>Add and subtract fractions</li></ul>	,				5	
<ul> <li>Add and subtract whole numbers with more that 4 digts, including using formal writee methods (columnar addition and subtraction) use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy, Solve addition and why.</li> <li>Brimet and Area (2 webs)</li> <li>Measure and why.</li> <li>Brimet and Area (2 webs)</li> <li>Measure and calculate on participants</li> <li>Measure and calculate and calculate on participants</li> <li>Measure and calculate on participants</li> <li>Measure and calculate on participants</li> <li>Measure and calculate and compart the area of rectangles (including squares), and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and calculate and compart the area of rectangles, (including squares), and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and in</li></ul>	8, 8	5			5	
<ul> <li>And and subtraction whole numbers with more than 4 digits, including using formal writen methods (columna addition and subtraction) Use and subtraction) Use and subtraction jumbers. and determines in the context of a problem, levels of a corrupating in the same denominators and methods to use and why.</li> <li>The same denominator and multiples of the same denominator and methods to use and why.</li> <li>The same denominator and multiples of the same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and why.</li> <li>The same denominator and methods to use and methods to use and multiples of the same denominator and methods to use and multiples of the same denominator and denominator and denominator and multiples of the same denominator and the onverse the area of rectangles (including using standard units, cm2, m2 estimate the area of irregular the area of ir</li></ul>		5				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
<ul> <li>While full/bers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> <li>Permeter and Area (2) weeks1</li> <li>Permeter and Area (2) methods (columnar a difficultion prime numbers and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> <li>Permeter and Area (2) weeks1</li> <li>Permeter and Area (2) methods (columnar a diregular)</li> <li>Permeter and (columnar a direcolumnar)</li> <li>Permeter and (columnar a diregular)<td></td><td>8</td><td>·····), ······</td><td></td><td>5</td><td></td></li></ul>		8	·····), ······		5	
<ul> <li>Know and use the vocabulary of prime numbers, prime numbers, prime numbers and composite (non-prime) numbers.</li> <li>Establish whether a number up to 100 to 20.</li> <li>Solve addition and subtraction multi-step problems in contexts, deciding which operations and why.</li> <li>Measure and why.</li> <li>Measure and methods to use and why.</li> <li>Measure and methods to use and why.</li> <li>Measure and methods to use and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Multiply propersions and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and composite (non-prime) and methods to use and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and composite (non-prime) and methods to use and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and composite (non-prime) and methods to use and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and composite (non-prime) and methods to use and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and composite (non-prime) and methods to use and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and composite (non-prime) and methods to use and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and composite (non-prime) and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and irregular</li> <li>Mathematical as and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and irregular and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and irregular and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Mathematical and compare the area of irregular and including using standard units, cm2, m2 estimate the area of irregular and including using</li></ul>				01100125.		
<ul> <li>vocabulary of prime (columnar addition and subtraction) Use calculations and determine, in the context of a problem in contexts, deciding which operations and methods to use and why.</li> <li>Primeter and Area (2 <u>weeks)</u></li> <li>Vocabulary of prime factors and composite reprime numbers upto 19.</li> <li>Primeter and Area (2 <u>weeks)</u></li> <li>Perimeter and Area (2 weeks)</li> <li>Measure and calculate the perimeter of composite rectining standard units, cm2, m2 setimate the area of ireculars</li> <li>Add and subtract fractions and mixed numbers, ported prime and necall prime numbers, ported the area of ireculars</li> <li>Measure and calculate and composite rectining using standard units, cm2, m2 setimate the area of ireculars</li> <li>Measure and calculate and compare the area of ireculars</li> <li>Measure and including using standard units, cm2, m2 setimate the area of ireculars</li> <li>Measure and calculate and compare the area of ireculars</li> <li>Multiply proper fractions and mixed numbers, supported by materials and</li> </ul>			5			
inclumant addition and subtraction) Use context of a problem, levels of accuracy. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.       numbers, prime factors and composite (non- prime) numbers.       including tenths and hundredths.       including tenths and hundredths.       and measure them in degrees (%).         Perimeter and Area (2 weeks) why.       Establish whether an numbers up to 19.       including tenths and built definition prime numbers.       including tenths and hundredths.       including tenths and hundredths.         Perimeter and Area (2 weeks) (including squares), and including using standard units, cm2, m2 estimate the area of including units, cm2, m2 estimate       Perimeter and Area (2 weeks), calculate and compare the area of including squares), and including using standard units, cm2, m2 estimate       Perimeter and Area (2 weeks), calculate and compare the area of including squares), and including using standard units, cm2, m2 estimate       Maters of the area of including units, cm2, m2 estimate       including tenths and hundredths.       including tenths and hundredths.         Notes of the same including using standard units, cm2, m2 estimate       including tenths and hundredths.       including tenths and hundredths.       including tenths and hundredths.         Notes of the same including using standard units, cm2, m2 estimate       including using standard units, cm2, m2 estimate       including using standard hundredths.       including using standard units cm2, m2 estimate       including using standard hundredths.       including using standard hundredths.       including usi					3	
and subtraction) Use rounding to check answers to calculations and determine, in the levels of accuracy. Solve addition and why.factors and composite (non- prime) numbers.numbers, and composite (non- prime) numbers.Recognise mixed numbers, and and convey from one form to the other and convext, solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.factors and factors and composite (non- prime numbers up to 100 is prime and recall prime numbers up to 19.numbers and indegrees (%).indegrees (%). Identity: angles at a point and convey from on a straight line and ½ a multiples of 90°.Perimeter and Area (2 weeks)Measure and calculate the perimeter of composite (including squares), and inscience and including using standard units, cm2, m2 estimate the area of irregularPerimeter and Area (2 weeks).mixed number, example 2/5 + 4/5 = 6/5 = 1 1/5 !• Multiples of the area of irregular• Multiples of the area of irregular• Multiples of the area of irregular		2 1			<b>o o</b> :	measure.
<ul> <li>and Galdenbury Cole</li> <li>rounding to check answers</li> <li>composite (non- prime) numbers.</li> <li>Establish whether a number up to 100 is prime and recall prime numbers up to</li> <li>Establish whether a number up to 100 is prime and recall prime numbers up to</li> <li>Perimeter and Area (2 weeks)</li> <li>Measure and calculate the perimeter of calculate and compare the area of recagling (including squares), and including squares), and in</li></ul>						
answers       to         answers       to         calculations       and         determine, in the context of a problem, levels of accuracy.       • Establish whether a prime and recall prime numbers up to       • Establish whether a numbers up to       • and on whole turn (total 3360°), angles at a point         subtraction multi-step problems in contexts, deciding which operation why.       • Measure and calculate the premeter of composite       • Measure and calculate the area of rectangles (including squares), and including using standard wnite, martenal to       • Add and subtract fractions and mixed numbers up to         • Measure and calculate and compare the area of rectangles (including squares), and including using standard winster       • Measure and calculate and compare the area of rectangles (including squares), and including using standard winster       • Add and subtract fractions and mixed numbers by whole numbers by whole numbers by whole	,					
<ul> <li>Calculations and determine, in the context of a problem, levels of accuracy. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> <li>Erstablish whether a number up to 100 is prime numbers up to 19.</li> <li>Perimeter and Area (2 weeks)</li> <li>Measure and calculate the perimeter of calculate and compare the area of rectangles (including sugares), and including using standard units, cm2, m2 estimate the area of irregular</li> <li>Measure and methods to use and why.</li> </ul>	rounding to check				, , ,	
determine, in the context of a problem, levels of accuracy, levels addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.       number up to 100 is prime and recal prime numbers up to 100 is prime and recal prime numbers up to 19.       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 = 11/5].       one form to the other and write mathematical statements >1 as a mixed number [for example 2/5 + 4/5 = 6/5 = 11/5].       mixed number [for example 2/5 + 4/5 = 6/5 = 11/5].         Calculate and m.       Calculate and compare the area of rectangles (including gaugees), and including using standard units, cm2, m2 estimate the area of irregular       Multiply proper fractions and mixed numbers, supported by materials and	answers to	· ,				
context of a problem, levels of accuracy. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.       prime and recall prime numbers up to 19.       one form to the other and write mathematical statements >1 as a mixed number (for example 2/5 + 4/5 = 6/5 = 11/5].       one form to the other and write mathematical statements >1 as a mixed number (for example 2/5 + 4/5 = 6/5 = 11/5].       one form to the other and write mathematical statements >1 as a mixed number (for example 2/5 + 4/5 = 6/5 = 11/5].         • Measure and calculate the perimeter of composite rectlinear shapes in cm and m. Calculate and compare (including squares), and including using standard units, cm2, m2 estimate the area of irregular       • Measure and calculate statements >1 as a mixed number (for example 2/5 + 4/5 = 6/5 = 11/5].       • Add and subtract fractions and mixed numbers supported by materials and	calculations and					
levels of acuracy.       prime numbers up to subtraction multi-step problems in contexts, deciding which operations and methods to use and why.       prime numbers up to 19.       and write mathematical statements >1 as a mixed number [for example 2/5 + 4/5 = 6/5 = 11/5].       multiples of 90°.         • Measure perimeter and Area (2) weeks)       • Measure calculate the perimeter oc composite rectilinear shapes in cm and m.       • Measure calculate and compare the area of rectangles (including using standard units, cm2, m2 estimate the area of irregular       • Multiply problems in contexts, statements >1 as a mixed number [for example 2/5 + 4/5 = 6/5 = 11/5].         • Multiply proper fractions and mixed numbers, supported by materials and       • Multiply proper	determine, in the					
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Subtraction multi-step problems in contexts, deciding which operations and methods to use and why.       Perimeter and Area (2) weeks)       Statements >1 as a mixed number [for example 2/5 + 4/5 = 6/5 = 11/5].         • Measure and calculate the perimeter of composite rectilinear shapes in cm and m.       • Measure and calculate and compare the area of rectangles (including squares), and including using standard units, cm2, m2 estimate the area of irregular       • Mathomatical statements >1 as a mixed number [for example 2/5 + 4/5 = 6/5 = 11/5].         • Measure and calculate and compare the area of irregular       • Measure and calculate and compare the area of irregular       • Multiply proper fractions and mixed numbers, supported by materials and					multiples of 90°.	
problems in contexts, deciding which operations and methods to use and why.Perimeter and Area (2 weeks)mixed number [for example 2/5 + 4/5 = 6/5 = 1 1/5].• Measure calculate the perimeter composite rectilinear shapes in cm and m. Calculate and compare the area of rectangles (including using standard units, cm2, m2 estimate the area of irregularmixed number [for example 2/5 + 4/5 = 6/5 = 1 1/5].• Measure and denominator and denominators that are multiples of the area of irregular• Mixed number.		19.				
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and methods to use and why.       • Measure and calculate the perimeter of composite rectilinear shapes in cm and m.       • Add and subtract fractions with the same denominators that are multiples of the area of rectangles (including squares), and including using standard units, cm2, m2 estimate the area of irregular       • Measure and denominators and denominators that are multiples of the same number.         • Multiply       proper         • Mu	•					
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units, cm2, m2 estimate numbers, supported the area of irregular by materials and						
the area of irregular by materials and						
shapes. diagrams.		8				
		shapes.	diagrams.			

			<ul> <li>Read and write decimal numbers as fractions [ for example 0.71 = 71100].</li> <li>Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li> </ul>			
•	compare numbers up to 10,000,000 and determine the value of each digit. Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero. Solve number and practical problems that involve all of the above. <u>Number- addition</u> <u>subtraction, multiplication + division</u> (weeks) Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why.	<ul> <li>Fractions (4 weeks)</li> <li>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</li> <li>Compare and order fractions, including fractions &gt; 1</li> <li>Generate and describe linear number sequences (with fractions).</li> <li>Add and subtract fractions and mixed numbers, using the concept of equivalent fractions.</li> <li>Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example 1/4 x 1/2 = 1/8 ].</li> <li>Divide proper fraction with division and calculate decimal fraction for example 1/3 ÷ 2 = 16 ].</li> <li>Associate a fraction with division and calculate decimal fractions [for example 3/8].</li> <li>Recall and use equivalences between simple</li> </ul>	Number: Decimals (2 weeks)         •       Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places.         •       Multiply one-digit numbers with up to 2 decimal places by whole numbers.         •       Multiply one-digit numbers with up to 2 decimal places by whole numbers.         •       Use written division methods in cases where the answer has up to 2 decimal places.         •       Solve problems which require answers to be rounded to specified degrees of accuracy.         Number: Percentages (2 weeks)       •         •       Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison.         •       Recall and use equivalences between simple	Measurement Converting Units (1 week)         • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.         • Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3dp.         • Convert between miles and kilometres.         • Measurement: Perimeter, Area and Volume (2 weeks)         • Recognise that shapes with the same areas can have different perimeters and vice versa.         • Recognise when it is possible to use formulae for area	<ul> <li><u>Geometry: Properties</u> of <u>Shapes</u> (2 weeks)</li> <li>Draw 2-D shapes using given dimensions and angles.</li> <li>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.</li> <li>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</li> <li><u>Problem Solving (3</u> weeks)</li> </ul>	<ul> <li>Statistics (2 weeks)</li> <li>Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</li> <li>Interpret and construct pie charts and line graphs and use these to solve problems.</li> <li>Calculate the mean as an average.</li> </ul>

remainders as whole number remainders, fractions, or by rounding as appropriate for the context. Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division, interpreting remainders according to the context. Perform mental calculations, including with mixed operations and large numbers. Identify common factors, common multiples and prime numbers.	fractions, decimals and percentages, including in different contexts. Geometry- Position and <u>Direction (1 week)</u> • Describe positions on the full coordinate grid (all four quadrants). Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	fractions, decimals and percentages including in different contexts. Mumber: Algebra (2 weeks) Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables.	<ul> <li>and volume of shapes.</li> <li>Calculate the area of parallelograms and triangles.</li> <li>Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm3, m3 and extending to other units (mm3, km3).</li> <li><u>Number: Ratio (2</u> <u>weeks)</u></li> <li>Solve problems involving the relative sizes of two quantities where missing values can be found by using</li> </ul>	
to the context. Perform mental calculations, including with mixed operations and large numbers. Identify common factors, common multiples and prime	simple shapes on the coordinate plane, and	<ul> <li>Express missing number problems algebraically.</li> <li>Find pairs of numbers that satisfy an equation with two unknowns.</li> <li>Enumerate possibilities of combinations of two</li> </ul>	km3). Number: Ratio (2 weeks) Solve problems involving the relative sizes of two quantities where	
		variables.	<ul> <li>missing values can be found by using integer multiplication and division facts.</li> <li>Solve problems involving similar shapes where the scale factor is known or can be found.</li> <li>Solve problems involving unequal sharing and</li> </ul>	
Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.			grouping using knowledge of fractions and multiples.	