Mathematics



Evelyn Street Primary Academy

Intended curriculum

Evelyn Street Primary Academy – Medium Term Plans

Our curriculum is built on the National Curriculum, which we then underpin with WhiteRose resources, First4Maths, NCETM (National Council for Excellence in the Teaching of Mathematics) and the Department for Education's maths guidance 2020 to ensure all of our children are ready to progress to the next step in their learning. The fundamental idea behind our curriculum design is to support our children to be able to perform simpler tasks so they can then move on to perform more complex tasks. Through this 'small step' teaching approach we support our children to develop the necessary skills to become 'deep thinkers'. Learning across the year is linked, ensuring there are plenty of opportunities to revisit core skills and apply learning from other topics within maths. This approach means that our children are able to make rich connections and acquire skills that can be recalled quickly and be transferred and applied in different contexts in Maths and more widely. Children are set into two groups across the year group, with targeted support for those struggling or for those needing deeper challenge. We ensure that maths is taught in creative and engaging ways. Wherever possible, mathematical concepts are introduced and explored within everyday contexts, giving children the chance to experience hands-on learning.

Our aim is to ensure that the three core areas of the national curriculum are covered in all our lessons: fluency, reasoning and problem solving. Children get to practice their maths skills regularly, with a focus on developing their ability to recall and apply their knowledge rapidly and accurately. As well as a daily maths lesson, we teach daily 'arithmetic' lessons which focus on calculation and fluency, as well as continually recapping prior knowledge.

What your child will learn

- To talk confidently about Maths and their learning, relating it to real life purposes.
- Use acquired vocabulary in lessons and discussions
- Use mathematical methods independently and show perseverance when tackling problems.
- Use different representations of mathematical concepts.

Evelyn Street Primary School- Number and Number Patterns

Maths progression through EYFS Nursery

Educational Programme: Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

ELG: Number ■ Have a deep understanding of number to 10, including the composition of each number ■ Subitise (recognise quantities without counting) up to 5 ■ Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts

ELG: Numerical Patterns
Verbally count beyond 20, recognising the pattern of the counting system
Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity
Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

Focus	Place value: Counting	Place value: Repres	nt Place value: Use and compare	Addition and subtraction; rec represent, use	d Addition and subtraction: call, Calculation se	Addition and subtraction: Solve problems
Nursery Skills, Knowledge & Understanding	 Enjoy counting verbally as far as they can go Point or touch (tag) each item, saying one number for each item, using the stable order of 1,2,3,4,5 Use some number names and number language within play, and may show fascination with large numbers 	 Begin to recognumerals 0 to 10 Subitise one, two three objects (wit counting) Link numerals amounts up to 5 maybe beyond 	 Compare two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two. Same! 	 Count up to items, recog that the last n said represent total counted (cardinal princip Ascribe mather meaning to marks 	 b five gnising umber that numbers are made up (composed) of smaller numbers b Begin to recognise that each counting number is one more than the one before 	 Begin to use understanding of number to solve practical problems in play and meaningful activities Separate a group of three or four objects in different ways, beginning to recognise that the total is still the same
Focus	Spatial Awareness		Shape		Pattern	Measures
Focus Nursery Skills, Knowledge & Understanding	 Spatial Awareness Respond to and uses lange position and direction Predict, move and rotate objective space or create the showould like 	guage of Choose i a purpose jects to fit Know 2D ape they Know sor Show aw objects Enjoy par with 2D a Attempt t trial and i	Shape ms based on their shape which are hapes names – circle, triangle, rect e 3D shape names eness of shape similarities and diffe tioning and combining shapes to ma d 3D shapes create arches and enclosures when provement to select blocks	e appropriate for angle, square rences between ake new shapes n building, using	Pattern Create their own spatial patterns showing some organisation or regularity Explore and adds to simple linear patterns of two or three repeating items, e.g., stick, leaf (AB) or stick, leaf, stone (ABC) Join in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next	 Measures In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items Recall a sequence of events in everyday life and stories

EYFS – Reception Year				
EYFS Curriculum (ELGs in bold)	Key Performance Indicators	Potential to deepen the learning		
Cardinality and Counting (Mostly incorporated	within ELG statement Have a deep understanding of number to 10)			
Accurately count a set of up to 10 objects and say how many there are	 Recites 1-10 in a stable counting order Uses 1:1 correspondence to accurately count a set of up to 5 objects Understands last number said represents whole set up to 5 Counts out up to 5 objects from a larger group Uses 1:1 correspondence to accurately count a set of up to 10 objects Understands last number said represents whole set up to 10 Counts out up to 10 objects from a larger group 			
Subitise (recognise quantities without counting) up to 5	 Can subitise regular arrangements of the quantities 1-3 e.g. a dice face, fingers or structured manipulatives like numicon or counters on a five frame Can recognise small amounts (up to three) when they are not in the 'regular' arrangement, e.g. small handfuls of objects Can subitise regular arrangements of quantities 1-5 e.g. a dice face, fingers or structured manipulatives like numicon or counters on a tens frame Can subitise small amounts (up to five) when they are not in the 'regular' arrangement, e.g. small handfuls of objects 	 Applies subitising when showing/getting a set or playing a game? (e.g. instantly picks up 5 pebbles on request without counting) 		
Read and match number symbols to sets of objects	 Can say the number word when shown numerals 1-5 Counts out and matches sets of objects to numerals 1-5 Can put the numeral cards 1-5 in order Can say the number word when shown numerals 6-10 Counts out and matches sets of objects to numerals 6-10 Counts out and matches sets of objects to numerals 6-10 Counts out the numeral cards 1-10 in order 	 Begin to reason and problem solve within the range 1-10 		
Recognise when amounts have been rearranged and generalise that, if nothing has been added or taken away, then the amount is the same.	 Knows that it doesn't matter which item you count first the count will be the same Arranges a given set of objects in different ways and still knows how many there are without recounting Corrects a puppet that thinks there are more objects when items are more spread out 	 Begin to reason and problem solve within the range 1-10 		
Can count forwards and backwards from any number to 10	 Can count backwards from 10-0 Can count forwards to 10 from any start number Can count forwards from any number and stop at a given number e.g. count from 2-7 Can count backwards to zero from any number Can count backwards starting from any number to 10 and stop at a given number e.g. count backwards from 8 to 3 	•		
Verbally count beyond 20, recognising the pattern of the counting system;	 Begins to count a few numbers past 10 Can join in with whole class counting in highly patterned parts e.g. 22, 23, 24 Counts to 20 accurately without missing out numbers Can spot the 1-9 pattern appearing again and again within each decade on a 100 square and uses this to support counting from 20-29 	 Knows the order of the tens to confidently count beyond 29 including over each tens barrier e.g. 69, 70, 71 		

Comparison (Partly incorporated within ELG statement Have a deep understanding of number to 10)					
Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity	 Compares sets with big differences in number and uses more than and fewer than to compare Can compare sets of items with smaller differences (including some that are the same) by pairing up one-to-one Can compare more than two sets of objects and use most and fewest 	 Can reason about which set has more and how to make them equal 			
Compare two numbers up to 10 and say which is more/less	 Can say which numeral is more or less by making sets and comparing Can say which numeral is more or less using the relative position in the counting sequence 	 Position numerals on an empty 1- 10 number track using reasoning e.g. I know 9 goes here because it is just before 10. 			
Use 1 more and 1 less relationship to predict how many there will be if you add one or take one away from a set of objects up to 10	 Count out a set of objects onto a tens frame to match a numeral. Add one more object and count or subitise to find the answer to one more question. Count out objects onto a number track to work out the answer and through doing this make links to counting sequence. Count out a set of objects onto a tens frame to match a numeral. Take one object away and count or subitise to find the answer to one less question. Count out objects onto a number track to work out the answer and through doing this make links to using the counting sequence. Count out objects onto a number track to work out the answer and through doing this make links to using the counting sequence. Develop mental number line linked to staircase pattern to say 1 more for any number to 10 without apparatus Develop mental number line linked to staircase pattern to say 1 less for any number to 10 without apparatus 	 Investigate other staircase patterns (e.g. going up in steps of 2 from 1 or 2), can they work out what is happening? Can they record the pattern and link it to the number track? 			

	Composition (Mostly incorporated within ELG statement Have a deep understanding of number to 10, including the composition of each number)					
Notice and subitise small groups within a larger set of objects (conceptual subitising)	 Use subitising to notice small groups (1-3) within a larger group of objects Use subitising to notice small groups (up to 5) within a larger group of objects Applies subitising (up to 5) to create groups within groups exploring different ways each number to 5 can look and describes what they see e.g. With my 5 I have made a 3 and a 2 	 Begins to combine small groups to a total and articulates this e.g. I know there are 4 because I can see a 2 and a 2 Be more systematic in exploring all the groups within groups for a given number so they know they have found all the possible representations 				
In practical activities, partition and recombine numbers up to 5 and then 10 into different pairs of numbers	 Investigates inverse operations through play – taking things away and putting them back Physically separating a group of up to 10 objects (whole) into two parts (part- part-whole model) Constructing a group of up to 10 (whole) from two kinds of things (parts) Explore numbers 6-10 on apparatus that allows children to relate them back to 5 e.g. on tens frames 7 is a whole row of 5 and 2 more, on bead strings 7 is 5 white beads and 2 red ones 	 Makes generalisations e.g. each part can never be bigger than the whole 				
Automatically recall (without reference to rhymes, counting or other aides) number bonds up to 5 (including subtraction facts)	 Use a systematic approach to find all the ways to make all the numbers up to 5 and begin to know some of these facts In a play-based context, for numbers up to 5, predict all the pairs that can be made when you partition the number (number bonds) 	 Makes generalisations and easily notices and uses patterns like always starting with the number and zero and then 1 less than the number and 1 or realising that every pair can be switched around to make a new pair Reason and problem solve using known facts 				
Automatically recall (without reference to rhymes, counting or other aides) some number bonds to 10, including double facts.	 Use a systematic approach to find all the ways to make 10 In a play-based context with 10 objects, predict a few of the pairs that can be made when you partition ten (number bonds) Link composition work to work in pattern to explore how some numbers can be partitioned into equal parts and learn these double facts 	 Uses generalisations from knowing number bonds 1-5 to explain how to find pairs that make 6-9 more efficiently e.g. knows to start with 0 and the number being partitioned, then put the 0 up by 1 and the other number down by 1 				
	Pattern					
Recognise, continue, copy and create repeating patterns	 Can continue an AB pattern Can copy an AB pattern Can make their own AB patterns 	•				

	Can continue an ABC, ABB, AABB, ABBC pattern	
	• Can copy an ABC, ABB, AABB, ABBC pattern	
	• Can make their own ABC, ABB, AABB, ABBC patterns	
Identify the unit of repeat in a repeating pattern	 Identify the smallest part of a pattern and use this to 'name' a pattern 	 Make circular patterns – investigating whether their pattern
	• Split a pattern into these parts and use this to be able to spot errors in patterns	will fit
	 Use this knowledge to continue a pattern from the midpoint of a unit of repeat 	 Make square border patterns investigating whether their mattern will fit
	 Use this knowledge to correct a pattern without having to start all over again 	pattern will fit
Symbolise the unit structure of a repeating pattern and	 Use own mark making ideas to record a pattern e.g. record a colour pattern with tally marks in different colours 	• Apply ability to symbolise patterns to reason about whether a
generalise the structure to another context	• Use objects to record a pattern e.g. picture cards to represent movements in a dance pattern	given pattern will fit around a circle or a square border
	• Make links between different contexts e.g. link the 2 ideas above by using a red tally to be a spin and a green tally to be a clap for example create the same pattern in a different context	•
Spot and create staircase patterns	 Notice growing patterns in books e.g. There was an old lady who swallowed a fly and order images as a staircase pattern 	 Investigate other staircase patterns, can they work out what is happening? Can they record the pattern and link it to the
	• Make staircase patterns in ones with concrete apparatus such as Cuisenaire rods or numicon	number track?
	• Make link to 1 more and 1 less on number track and develop mental number line until they can say 1 more and 1 less for any number to 10	
	•	
Explore and represent patterns within numbers up to 10,	• Sort odd and even representations of numbers e.g. numicon, numberblocks or counters on tens frames	• Link odds and evens back to step patterns in twos and predict
including evens and ouds.	• Understand that even numbers can be represented exactly by sets of 2 and odd numbers have an odd one out	an odd or even number beyond 10
	 Use this to prove with practical apparatus whether a number is odd or even in range 0-10• 	
Explore and represent patterns within numbers up to 10, including double facts and how quantities can be distributed	• Make reflective patterns e.g. using paint and fold in half then add extra pattern components on both sides or using graphics package with reflection enabled	 Systematically generate doubles and halves facts to 10 and learn them all off by heart
equany.	• Reflect sets of objects and record how many there are in total	
	• Link sharing equally to known facts from composition work e.g. 2 composed from 1 and 1, 4 (2 and 2), 10 (5 and 5)	
	Moderation Comment and Date.	

		'First 4 Maths'	' - Mathematics		
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cardinality & Counting	Cardinality & Counting	Cardinality & Counting	Composition	Cardinality & Counting	Cardinality & Counting
1.1 Accurate counting of sets of objects 1-5	2.1 Accurate counting of sets of objects 1-10, recognising and ordering numerals 1-10	3.1 Counting backwards 10-1 & ordering numbers 10-1	4.1 Recall number bonds for numbers 1-5	5.1 Counting beyond 10 noticing pattern in ones	6.1 Counting beyond 20 noticing pattern in tens
(1:1 correspondence, cardinality)	2.2 Subitising 1-5	Composition	sets of objects 6-9	Composition	Measures
1.2 Subitising 1-3	(Introducing 4 and 5)	3.1 Systematic approach to	and tens frame	5.1 Systematic approach to	6.1 Capacity
NB S1 episodes 1-4		partitioning	NB S2 episodes 1-5	including on tens frame and part	6.2 Time – sequence of events
(Introducing 1, 2 and 3)	Composition	part whole model	(Introducing 6-10)	whole model	
1.3 Numeral Recognition to 5	2.1 Applied conceptual	NB S1 episode 14 (Holes)		5.2 recall some number bonds for 10	Shape/Space
	subitising		Measures	NB S2 Episode 13	6.1 Relationships between
Composition	NB S1 episode 11 (Stampolines)	Comparison	4.1 Length	(Blast Off!)	snapes
1.1 Conceptual subitising -	2.2 Inverse operations - splitting and recombining sets of objects	3.1 Find 1 less using sets of			Detterr (clemente
noticing numbers within numbers	1-5 including on part whole model	objects on tens frame and on a number track	Shape/Space	Measures	Composition & Comparison)
Comparison	NB S1 episode 12		4.1 Representing spatial relationships as maps	5.1 Mass	6.1 Symmetry/reflections – link to doubles
1.1 Compare sets 1-5 using vocab of more / fewer / most /fewest	(Whole of me)	Measures 3.1 Height	Spatial vocabulary (forwards, backwards, up, down, across)	Shape/Space	6.2 Share fairly (comparison), Use part whole model to partition numbers where both

	Comparison			5.1 3D shapes	parts are the same
Shape/Space 1.1 2D shapes and their properties Pattern	2.1 Compare numbers using vocab of more/less2.2 Find 1 more using sets of objects on tens frames and on a number track	Shape/Space 3.1 Spatial vocabulary (in front, behind, in between, on, in, under, first second, third)	Pattern (alongside Comparison) 4.1 Numerical Patterns – staircase patterns linked to finding 1 more/1 less using a mental numberline	properties of shapes Patterns 5.1 Numerical patterns	Look at halving as inverse of doubles (Pattern) NB S2 episode 9 (Double Trouble)
1.1 Simple AB patterns(complete, copy, make own and	Pattern	Pattern 3.1 More complex patterns –	(Comparison)	odds & evens NB S2 episode 11	Possible extension
spot/correct errors in patterns)	2.1 identifying unit of repeat – AB & ABC patterns	ABB, ABBC 3.2 Generalising pattern and	NB S2 episodes 6 & 7 (Just add one & ten green	(Odds & Evens)	Sharing between more than two (comparison)
Content here is a recap from Nursery and provides us with baseline assessment data.		link pattern of shapes to movements	bottles)		NB S2 episode 8 (Counting Sheep)
					Splitting into more than 2 parts on a part whole model (composition)
					NB S2 episode 10
					(The unce unces)

		YEAR 1 END GOALS	
Autumn	Number: Place Value (within 10) RTP: NPV1 Count within 100, forwards and backwards, starting with any number. RTP: NPV2 Reason about the location of numbers to 20 within the linear number system, including comparing using <> and = NC: count, read and write numbers to 100 in numerals NC: given a number, identify 1 more and 1 less NC: identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least NC: read and write numbers from 1 to 20 in numerals and words.	Number: Addition and Subtraction (within 10) • RTP: NF1 Develop fluency in addition and subtraction facts within 10. • RTP: AS1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. • RTP: AS2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. • NC: read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs • NC: represent and use number bonds and related subtraction facts within 20 • NC: add and subtract one-digit including 0 • NC: solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations and presentations replement such as $7 = 2$, 0	Geometry: Shape • RTP: G1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. • NC: recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].
		•	

0	Number: Place Value (within 20)Number: Addition at• RTP: NPV1 Count within 100, forwards and backwards, starting with any number. • RTP: NPV2 Reason about the location of numbers to 20 within the linear number system, including comparing using <> and =• RTP: AS2 Reac equations con subtraction (- relate additive to real-life cor on NC: reidentify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, leastNC: represent relate additive to real-life cor signs• NC: read and write numbers from 1 to 20 in numerals and words.NC: solve one addition and s objects and pictorial representations including the number from 1 to 20 in numerals and words.Number: Addition at solve one addition and s objects and pictorial representations including the number from 1 to 20 in numerals and words.	d Subtraction (within 20) write and interpret ining addition (+), nd equals (=) symbols, and expressions and equations exts. and interpret atements involving traction (-) and equals (=) inin duse number bonds and ion facts within 20 tract one-digit and two- o 20, including 0 tep problems that involve ortaction, using concrete orial representations, and problems such as 7 = ? - 9	Place value within 50 RTP: NPV1 Count within 100, forwards and back starting with any number. RTP: NF2 Count forwards and backwards in mult of 2, 5 and 10, up to 10 multiples, beginning wit multiple, and count forwards and backwards thr the odd numbers. NC: count to and across 100, forwards and back beginning with 0 or 1, or from any given number NC: count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s NC: given a number, identify 1 more and 1 less NC: identify and represent numbers using objecc pictorial representations including the number I and use the language of: equal to, more than, le than (fewer), most, least NC: read and write numbers from 1 to 20 in nun and words.	Measurement: Lengy wards, RTP: NPV2 Reason al of numbers to 20 wit number system, inclusing <> and = yough RTP: AS2 Read, write equations containing wards, subtraction (-) and e r and relate additive e equations to real-life NC: compare, descril practical problems for heights [for example longer/shorter, tall/s NC: measure and be lengths and heights +	th and height Measurement: Mass and Volume bout the location RTP: AS2 Read, write and thin the linear interpret equations containing uding comparing addition (+), subtraction (-) and e and interpret addition (+), g addition (+), equals (=) symbols, ryressions and equations to real-life contexts. be and solve NC: compare, describe and solve or lengths and NC: measure and begin to record short, double/half] outme
	 Number: Multiplication and Division RTP: NF2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning NC: solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. Number: Frac NC: recognise, find half as 1 of 2 equal object, shape or qu NC: recognise, find half as 1 of 2 equal object, shape or qu NC: recognise, find quarter as 1 of 4 ec an object, shape or 	Ins Geometry: Position 8 and name a • RTP: G2 Compos arts of an 3D shapes from nd name a • anapes to match al parts of manipulating shiplace them in pa uantity • NC: describe pos directions and m including whole, quarter and three turns.	Number: Place Value (with space value) nose 2D and • RTP: NPV1 Count within 100, fl backwards, starting with any result of an user value (with space value) tch an use of the particular • NC: count to and across 100, fl backwards, beginning with 0 cany given number particular • NC: count, read and write num in numerals; count in multiple 10s position, di movements, ble, half, hree-quarter • NC: identify and represent num objects and pictorial represent num cluding the number line, and language of correspondence	hin 100 Measures forwards and umber. orwards and orwards and orwards and or 1, or from hers to 100 s of 2s, 5s and more and 1 mbers using tations d use the Measures Measures value of diffe denominatio notes	Money Measurement: Time e and know the rent NC: compare, describe and solve practical problems for time ns of coins and NC: measure and begin to record time (hours, minutes, seconds) NC: sequence events in chronological order using language NC: recognise and use language relating to dates, including days of the week, weeks, months and years NC: tell the time to the hour and half past the hour and draw the hands on a clock face to show these times

		YEA	R 2 END GOALS			
Autumn	Number: Place Value Number: Addition and Subtraction • RTP: NPV1 Recognise place value of each digit in 2 digit numbers; compose and decompose 2 digit numbers (standard + non-standard partitioning) • RTP: NP1 Secompose 2 digit numbers (standard + non-standard partitioning) • RTP: NP1 Secompose 2 digit numbers (standard + non-standard partitioning) • RTP: NP1 Secompose 2 digit numbers (standard + non-standard partitioning) • RTP: NP1 Secompose 2 digit numbers (standard + non-standard partitioning) • RTP: NP1 Secompose 2 digit numbers (standard + non-standard partitioning) • RTP: NS1 Add and subtract across 10. • NC: recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • RTP: NP1 Secompose 2 digit numbers, including identifying the previous and next multiple of 10. • NC: recall and use that addition of 2 numbers is commutative and subtraction of one number from another is not • NC: compare and order numbers from 0 up to 100; use <, > and = signs • NC: count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward • NC: use place value and number facts to solve problems. • NC: solve problems with addition and subtract any 2 two-digit numbers. • TAF = partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus • Nc: recall and uniter has addition and subtract any 2 two-digit numbers are addition and subtract any 2 two-digit numbers. • TAF = recal scales in divisions of ones, twos, fives and tens • NC: recreal and a subtract any 2 two-di			 RTP: G of 2D about NC: idd includi vertica NC: idd includi NC: idd NC: idd NC: idd NC: idd NC: idd Stapes faces a 	Geometry: Properties of Shape 1 Use precise language to describe the properties and 3D shapes, and compare shapes by reasoning similarities and differences in properties. entify and describe the properties of 2-D shapes, ing the number of sides and line symmetry in a al line entify and describe the properties of 3-D shapes, ing the number of edges, vertices and faces entify 2-D shapes on the surface of 3-D shapes impare and sort common 2-D and 3-D shapes and lay objects. name and describe properties of 2-D and 3-D s, including number of sides, vertices, edges, and lines of symmetry.	
Spring Y2	 Measurement: money Continue to explore RTP: NPV2 and AS1 – AS4 NC: recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value NC: find different combinations of coins that equal the same amounts of money. NC: solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change TAF = use different coins to make the same amount 	Number: Multiplication and tecognise repeated addition contexts, representing the product, within the 2, 5 and 10 multiplication telate grouping problems where the number of gro with a missing factor, and to division equations (qu and use multiplication and division facts for the 2, 5 en numbers te mathematical statements for multiplication and hem using the multiplication (x), division (÷) and e hat multiplication of 2 numbers is commutative an roblems involving multiplication and division facts, includ I multiplication and division facts for 2, 5 and 10 ar ting an understanding of commutativity as necess	Number: Multiplication and Division Measurement: Length nise repeated addition contexts, representing them with multiplication equations and roduct, within the 2, 5 and 10 multiplication tables Measurement: Length grouping problems where the number of groups is unknown to multiplication missing factor, and to division equations (quotitive division). NC: choose and use ap standard units to estim measure length/height direction (m/cm); to the appropriate unit using mbers thematical statements for multiplication and division and division (÷) and equals (=) signs NC: compare and orde mass, volume/capacity the results using >, < a ultiplication and division facts, including problems in contexts. iplication and division facts, including problems, n understanding of commutativity as necessary		Height opriate te and h any nearest ilers (tape engths, nd record I =	 Measurement: Mass, Capacity and Temperature NC: choose and use appropriate standard units for mass (kg/g); temperature (°C); capacity (litres/ml) use scales, thermometers and measuring vessels NC: compare and order measures and record the results using >, < and =
	Number: Fractions • NC: recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity • NC: te quarte 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2. • TAF = identify %, 1/3, ½, 2/4, ½ of a number or shape, and know that all parts must be equal parts of the whole • TAF = identify %, 1/3, ½, 2/4, ½ of a minute	<u>Measurement: Time</u> mpare and sequence intervals of time I and write the time to five minutes, including r past/to the hour and draw the hands on a ace to show these times. ow the number of minutes in an hour and the er of hours in a day ead the time on a clock to the nearest 15 25	Statistics • RTP: MD1 • RTP: NPV2 • NC: interpret and construct simple pictograms, ta charts, block diagrams and tables • NC: ask and answer simple questions by counting the number of objects in each category and sorti the categories by quantity • NC: ask and answer questions about totalling and comparing categorical data	NC: order an and sequence NC: use mat movement in between rot three-quarter	Geometr ad arrange con ces hematical voca ncluding move ration as a turr er turns (clocku	ry: Position and Direction nbinations of mathematical objects in patterns abulary to describe position, direction and ement in a straight line and distinguishing n and in terms of right angles for quarter, half and wise and anti-clockwise).

Term	ⁿ 3/4 key vocabulary overview					
Autumn	Number: Place Value Yr 3 = ten times the size of, previous and next multiple of 10 or 100, ascending and descending, Scale up, regroup, interval Yr 4 = consecutive, integer, positive, negative (do not use minus to refer to negative numbers), closest multiple, rounded to	Number: Additi Yr 3 = partition, regroup, estimate, Missing part, minuend, subtrahend sum, addend Yr 4 = scaling, formal, columnar, est	on and Subtraction check, inverse, efficiency, , difference timate, regroup	Number: Multiplication and DivisionYr 3 = Factor, product, double and double again, six fours are twenty-four (verbalise sound pattern of 3 relevant numbers), quotient, sharing (partitive), grouping (quotitive)Yr 4 = dividend, multiple, divisor, remainder, factor pairs, commutative, distributive, quotient, represents, correspondence problems		
Spring	Number: Multiplication and Division Yr 3 = Factor, product, Double and double again, six fours are twenty-four (verbalise sound pattern of 3 relevant numbers), quotient, sharing (partitive), grouping (quotitive) Yr 4 = dividend, multiple, divisor, remainder, factor pairs, commutative, distributive, quotient, represents, correspondence problems	Measurement: Length, Perimeter and area Yr 3 = perimeter, length (m/cm/mm), duration Yr 4 = metric unit, rectilinear, mm, cm, m, km (kilo), units of measure, area	Number: Fraction Yr 3 = tenths, unit/non-unit fraction, nu denominator mixed number, equal part Yr 4 = proper and improper, equivalent	ONS merator, :s, interval	Measures: Mass and Capacity Yr 3 = volume/capacity (I/mI)Grams, kilograms, mass (kg/g); litres, millilitres, Yr 4 = unit of measure, metric	
Summer	Number: Decimals Measure: Money Yr 3 = add and subtract amounts of money to give change, using both £ and p in practical contexts Yr 4 = equivalent, 2 decimal places (2dp), round, nearest whole number, tenth, hundredth, estimate, compare	Measurement: TimeYr 3 = Calendar, a.m. p.m., Roman numerals, 12 hour clock and 24 hour clock, analogue and digital, use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight, duration, year and leap yearYr 4 = convert, approximately, difference	Statistics Yr 3 = interpret, present, pictogram, bar chart, frequency table, Venn diagram, axis/axes Yr 4 = interpret, present discrete and continuous data, using appropriate, time graphs, Carroll diagram	Geometry Posit Yr 3 = 2-D shapes a polygon, polyhedr cone, prism, horizo greater than, less t clockwise, anti-clo Yr 4 = quadrilatera orientation, edge, trapezium, paralle acute, obtuse, stra translation, first qu	Geometry: Properties of shape Position and direction r 3 = 2-D shapes and 3-D shapes, parallel, perpendicular Jolygon, polyhedron, sphere, cuboid, cylinder, pyramid, one, prism, horizontal, vertical, orientation, angles, turn greater than, less than, half turn, right angle, quarter turn lockwise, anti-clockwise r 4 = quadrilateral, triangle, regular, irregular, symmetry prientation, edge, vertex, isosceles, equilateral, scalene, rapezium, parallelogram, rhombus, interior angles, neute, obtuse, straight line, properties, coordinates, plot, ranslation, first quadrant, x and y axis	

	3/4 Autumn END GOALS					
Number:	Place Value	Number: Additio	on and Subtraction	Number: Multiplication and Division		
3	4	3	4	3	4	
 NPV1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10. NPV2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning. NPV3 Reason about the location of any three- digit number in the linear number system, including identifying the previous and next multiple of 100 and 10. NPV4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts. NC: solve number problems and practical problems involving these ideas 	 NPV1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100. NPV2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning. NC: identify, represent and estimate numbers using different representations NPV3 Reason about the location of any four- digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100 (AND 10), and rounding to the nearest of each. NC: count backwards through 0 to include negative numbers NC: solve number and practical problems that involve all of the above and with increasingly large positive numbers NC: count in multiples of 25 and 1,000 NC: read Roman numerals to 100 and know that over time, the numeral system changed to include 0 and place value 	 AS1 Calculate complements to 100, for example: 46 + ? = 100 AS2 Add and subtract up to three-digit numbers using columnar methods. AS3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction. NF1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. NF3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). NC: solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. 	 NF3 Apply place-value knowledge to known additive facts (scaling facts by 100) NC: add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate NC: estimate and use inverse operations to check answers to a calculation NC: solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. 	 MD1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division. NF2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number NF3 NPV1 NC: solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects 	 NF1 Recall multiplication and division facts up to 12x12 and recognise products in multiplication tables as multiples of the corresponding number. NF3 Apply place-value knowledge to known multiplicative number facts (scaling facts by 100) MD1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. MD2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. NC: count in multiples of 6, 7, 9, 25 and 1,000 	

		3/4 Spring END GOALS								
Number: Multiplication and Division			Measuremen	t: Length, Perimeter	Number:	Fractions	Measures: M	ass and Capacity		
			and area				Number: Decimals			
	3	4	3 = Length and perimeter	4 = Length, perimeter and area	3	4	3 = Measure	4 = Decimals		
	 MD1 NC: recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables NC: write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one- digit numbers, using mental and progressing to formal written methods NC: solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects 	 NF1, NF3, MD2 MD3 Understand and apply the distributive property of multiplication NF2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders NC: use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers NC: recognise and use factor pairs and commutativity in mental calculations NC: multiply two-digit and three-digit numbers by a one- digit number using formal written layout NC: solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. 	 NPV2, AS2 and NPV3 NC: measure, compare, add and subtract: lengths (m/cm/mm) NC: measure the perimeter of simple 2-D shapes 	 NPV4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. G2 Find the perimeter of regular and irregular polygons. NC: convert between different units of measure NC: measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres NC: find the area of rectilinear shapes by counting squares 	 F1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts (unit fractions and non- unit fractions and non- unit fractions with small denominators) F2 Find unit fractions of quantities using known division facts (multiplication tables fluency). F3 Reason about the location of any fraction within 1 in the linear number system. NC: count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one- digit numbers or quantities by 10 NC: recognise and show, using diagrams, equivalent fractions with small denominators NC: compare and order unit fractions, and fractions with the same denominators F4 Add and subtract fractions with the same denominator, within 1. NC solve problems that involve all of the above 	 F1 Reason about the location of mixed numbers in the linear number system. F2 Convert mixed numbers to improper fractions and vice versa. F3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers. NC: recognise and show, using diagrams, families of common equivalent fractions NC: count up and down in hundredths; recognise that hundredths arise when dividing an object by a 100 and dividing tenths by 10. NC: solve problems involving increasingly harder fractions to divide quantities, including non-unit fractions where the answer is a whole number NC: solve simple measure and money problems involving fractions and decimals to 2 decimal places 	 NC: measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 	 NC: find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths NC: recognise and write decimal equivalents of any number of tenths or hundredths 		

	3/4 Summer END GOALS							
Number: Decimals Measure: Money3 =Consolidation of place value and money		Measurem	nent: Time	Statis	Statistics Geometry: Properties of shape			
		4 = Decimals and money	3 = Time 4 = Time		3 =Statistics 4 = Statistics		3 =Properties of shape	4 = Properties of shape and Position and Direction
	 NPV2 and AS2 NPV4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts. NC: add and subtract amounts of money to give change, using both £ and p in practical contexts 	 Decimals NC: compare numbers with the same number of decimal places up to 2 decimal places NC: recognise and write decimal equivalents to ¼; ½; ¾ NC: round decimals with 1 decimal place to the nearest whole number Money NC: estimate, compare and calculate different measures, including money in pounds and pence NC: solve simple measure and money problems involving fractions and decimals to 2 decimal places. NC: round decimals with 1 decimal place to the nearest whole number 	 NC: tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks NC: estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight NC: know the number of seconds in a minute and the number of days in each month, year and leap year NC: compare durations of events 	 NC: read, write and convert time between analogue and digital 12 and 24-hour clocks NC: solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days 	 NC: interpret and present data - bar charts, pictograms and tables NC: solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables. 	 NPV4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. NC: interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs NC: solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. 	 G1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations. NC: recognise that 2 right angles make a half-turn, 3 make three quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle NC: recognise angles as a property of shape or a description of a turn G2 Draw polygons by joining marked points, and identify parallel and perpendicular sides. NC: identify horizontal and vertical lines NC: draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them 	 NC: identify acute and obtuse angles and compare and order angles up to 2 right angles by size G2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. NC: compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes G3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry. Position and direction NC: describe positions on a 2-D grid as coordinates in the first quadrant G1 Draw polygons, specified by coordinates in the first quadrant. NC: describe movements between positions as translations of a given unit to the left/right and up/down

5/6 Autumn END GOALS								
Number: Place Value	Number: Four op	erations	Number	: Fractions				
 NPV2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each. NC: read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit NC: count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 NC: interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0. NC: round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 NC: solve number problems and practical problems that involve all of the above NC: read Roman numerals to 1,000 (M) and recognise years written in Roman numerals NPV3 Recognise the plave and each digit NPV3 Reason about the location of any number up to 10 million, including in context. NPV4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts. NC: read, write, order and compare numbers up to 10 000 000 and determine the value of each digit NC: solve number up to 1,000,000 to the nearest 10, 100 (M) and recognise years written in Roman numerals 	 NF2 Apply place-value knowledge to known additive facts NC: add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar) NC: add and subtract numbers mentally with increasingly large numbers NC: use rounding to check answers and determine, in context, levels of accuracy NC: solve + AND - multi-step problems in contexts, deciding which operations and methods to use and why. MD1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size. MD2 Find factors and multiples of positive integers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors. NC: know and use the vocabulary of prime numbers and establish whether a number up to 100 is prime; recall prime numbers to 19 NC: multiply and divide numbers mentally drawing upon known facts NC: recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³) NC: solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes NC: solve problems involving multiplication and division, including sub the using a formal written method. NC: multiply any whole number with up to 4 digits by any one-digit number using a formal written method, including long multiplication for two-digit numbers. MD3 Multiply any whole number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context. NC: solve problems involving addition, subtraction, multiplication and division and a combination of these, including understand the solici on a combination of these, including understand the solici number with up to 4 digits by a one-digit number using a formal written method, including long multiplication a	 AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships restricted to multiplication by a whole number). AS/MD2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. NC: multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication NC: divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context NC: divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context NC: clentify common factors, common multiples and prime numbers NC: ise their knowledge of the order of operations to carry out calculations involving the 4 operations involving the 4 operations NC: solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why NC: solve problems involving addition, subtraction, multiplication and division NC: use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. 	 SF2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system. SF1 Find non-unit fractions of quantities NC: compare and order fractions whose denominators are all multiples of the same number NC: identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths NC: recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number NC: add and subtract fractions with the same denominator and denominator and denominator and denominator shat are multiples of the same number NC: multiply proper fractions and mixed numbers by whole numbers by whole numbers, supported by materials and diagrams 	 6F–1 Recognise when fractions can be simplified, and use common factors to simplify fractions. 6F–2 Express fractions in a common denomination and use this to compare fractions that are similar in value. 6F–3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy. 6NPV–4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts. NC: add and subtract fractions NC: multiply simple pairs of proper fractions, writing the answer in its simplest form NC: divide proper fractions by whole numbers NC: associate a fraction with division and calculate decimal fraction 				

	Class 5/6 Spring END GOALS											
	Number: Decimal and Percentages		Measure: Co	nuart unite	Num	hor: Patio	Measure: Perimeter, Area			Yr 5 Consolidation		
					Num	Rumber: Ratio		and Volume		Yr 6 Algebra		
	5	6	5	6	5	6	5	6	5	6		
	NPV1 - 4.	NPV2	NPV5 Convert between	NC: solve problems	NC: solve	AS/MD3 Solve	G2 Compare	G1.		6AS/MD-4 Solve problems		
	NC: read and write decimal numbers as fractions	numbers given to three decimal	including using	calculation and	involving	ratio relationships.	calculate the	NC: recognise that		NC: use simple formulae		
		places	common decimals and	conversion of units	multiplicatio		area of	shapes with the		NC: generate and describe		
	NC: recognise and use thousandths and relate	NDV/1 (NC) giving answers are up to	fractions.	of measure, using	n and division	NC: solve problems	rectangles	same areas can have		linear number sequences		
	equivalents	three decimal places	NC: understand and	to 2 decimal places	including	sizes of two	squares) using	and vice versa		number problems		
			use approximate	where appropriate	scaling by	quantities where	standard units.			algebraically		
	NC: read, write, order and compare numbers	NC: multiply one-digit numbers with	equivalences between	NC: use read write	simple fractions and	missing values can	NC: including	NC: recognise when		NC: find pairs of numbers		
	with up to 3 decimal places	numbers	common imperial units	and convert	problems	integer	units. square	formulae for area		that satisfy an equation		
	F-3 and NC: solve problems which require	NC: use written division methods in	(inches, pounds, pints)	between standard	involving	multiplication and	centimetres	and volume of		with two unknowns		
	knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and fractions with a	cases where the answer has up to 2	NC: coluo problems	units, converting	simple rates	division facts	(cm ²) and	shapes		NC: anumarata		
	denominator of a multiple of 10 or 25.	decimal places	involving converting	length, mass,		NC: solve problems	(m ²) and	NC: calculate the		possibilities of		
	·	NC: solve problems which require	between units of time	volume and time		involving the	estimate the	area of		combinations of 2		
	NC: recognise the per cent symbol (%) and	answers to be rounded to specified	NC: use all four	from a smaller unit		calculation of %s and	area of	parallelograms and		variables.		
	parts per 100", and write percentages as a	degrees of accuracy	operations to solve	larger unit, and vice		comparison	irregular snapes	triangles				
	fraction with denominator 100, and as a decimal	NC: solve problems involving the	problems involving	versa, using decimal			NC: measure	NC: calculate,				
	fraction	calculation of percentages	measure using decimal	notation to up to 3		NC: solve problems	and calculate	estimate and				
	MD1 and NF2	NC: recall and use equivalences	scaling.	decimal places		shapes where the	of composite	compare volume of				
		between simple fractions, decimals		NC: convert		scale factor is known	rectilinear	using standard	ion			
	NC: add and subtract whole numbers with more	and percentages, including in		between miles and		or can be found	shapes in	units(cm ³ and m ³	idat			
	methods (columnar addition and subtraction)	different contexts		kilometres		NC: solve problems	and metres,	and other units)	losu			
		NC: recall and use equivalences				involving unequal	estimate		ပိ			
	NC: add and subtract numbers mentally with	between simple fractions, decimals				sharing and grouping	NC: actimate					
	increasingly large numbers	different contexts				fractions and	volume and					
	NC: use rounding to check answers to					multiples.	capacity					
	calculations and determine, in the context of a											
	problem, levels of accuracy											
	NC: solve addition and subtraction multi-step											
	problems in contexts, deciding which operations											
	and methods to use and why.											
	NC: multiply and divide whole numbers and											
	those involving decimals by 10, 100 and 1,000											
	decimal places											
	NC: use all four operations to solve problems											
	including scaling.											
	NC: solve problems involving numbers up											
	to 3 decimal places											

5/6 Summer END GOALS									
Geometry: Prope	erty of Shape	Geometry: Posit	tion and direction	Statistics					
5	6	5 <u>6</u>		5	6				
 G1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size. NC: acute, obtuse and reflex angles NC: identify: angles at a point and 1 whole turn (total 360°), angles at a point on a straight line and half a turn (total 180°) other multiples of 90° NC: use the properties of rectangles to deduce related facts and find missing lengths and angles NC: distinguish between regular and irregular polygons based on reasoning about equal sides and angles. NC: identify 3-D shapes, including cubes and other cuboids, from 2-D representations 	 G1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems. NC: recognise, describe and build simple 3-D shapes, including making nets NC: compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons NC: recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. 	 NC: identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed 	 NC: describe positions on the full coordinate grid (all 4 quadrants) NC: draw and translate simple shapes on the coordinate plane, and reflect them in the axes 	 NPV4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts. NC: solve comparison, sum and difference problems using information presented in a line graph NC: complete, read and interpret information in tables, including timetables 	 NC: illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius NC: interpret and construct pie charts and line graphs and use these to solve problems NC: calculate and interpret the mean as an average 	Investigations and consolidation Problem Solving			

5/6 Summer SMALL STEPS								
	Geometry: Proper	ty of Shape	Geometry: Po	sition and direction	Stat			
	5	6	5	6	5	6		
	 Understand and use degrees Classify and estimate angles Measure angles up to 180 degrees Drawing lines and angles accurately Calculating angles around a point Calculating angles on a straight line Calculating lengths and angles in shapes – squares, rectangles and triangles Regular and irregular polygons (including triangles, quadrilaterals, pentagon, hexagon, heptagon, octagon, nonagon, decagon) 3D shapes – recap identifying 3D shapes and introduce the language of 'hedron' to describe faces (cuboids, cylinders, pyramids, cones, spheres, prisms. Hedrons (tetrahedron, hexahedron, octahedron, decahedron, dodecahedron) 	 Measure and classify angles Calculate angles Vertically opposite angles Angles in a triangle Angles in a triangle – special cases (equilateral, isosceles) Angles in a triangle – missing angles (including exterior angles) Angles in special quadrilaterals Angles polygons Circles Draw shapes accurately – protractor and ruler Draw nets of 3-D shapes 	 Read and plot coordinates Problem solve with coordinates Translation Translation with coordinates Lines of symmetry Reflection in horizontal and vertical lines 	 The first quadrant Read and plot points in four quadrants Solve problems with coordinates Translations - Missing coordinates Reflections - through x and y axis. Missing coordinates 	 Draw line graphs - scales Read and interpret line graphs estimate by reading between intervals Read and interpret line graphs Two-way tables - try to link to foundation topics and Science work Read and interpret timetables 	 Line graphs Dual line graphs Read and interpret pie charts – fractions, angles and division Pie charts with percentages - 100% of the chart = 360 degrees Draw pie charts – link to prior learning The mean 	Investigations and consolidation Problem Solving	
	 <u>Recap focus</u> Draw polygons, specified by coord and translate within the first quad Formal multiplication strategies 	dinates in the first quadrant, drant.	 <u>Recap focus</u> Convert mixed number t versa, and be able to rea on a number line Formal division strategie 	o improper fractions and vice son about any mixed number s	 <u>Recap focus</u> Ratio and scaling problems (ir Time – read to 5 minute inter 	Recap focus Consolidate ready to progress criteria for year 5 pupils. Use transition 'checkpoints' from NCETM for year 6 pupils		