Totley Primary School

# Mathematics

A sequenced curriculum

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# Maths Curriculum

## Intent, Implementation and Impact

# Intent

To develop a curriculum which:

- Instils a love of maths and gives children the necessary knowledge and skills they need to be successful, confident and accurate mathematicians, so they are ready for their next stage in education and be confident mathematicians in life.
- ✓ Is at least as demanding as the National Curriculum
- ✓ Teaches children to be independent, resilient and creative thinkers, while transferring knowledge across curriculum areas.
- ✓ Enables teachers to teach using the most effective strategies.
- ✓ Tailors learning to meet children's individual needs and strengths.
- ✓ To teach children know themselves as reflective learners, able to identify their own next steps in learning.

	Mathe	matics	
<b>Retrieval Practice</b>	Number Knowledge	Arithmetic	Reasoning

#### Reasoning mathematically is the most important factor in a pupil's success in mathematics. Nunes (2009).

That is why, at every level of challenge, and whatever stage and age, every child is given the opportunity to reason and solve problems.

#### Oracy

We use the language of problem solving in a clear progression. The Mead Trust (2019) Noting < Describing < Explaining < Convincing < Justifying < Proving

The Oracy Framework, which is used across all curriculum areas, is applied in maths to teach children how to reason, explain, prove and justify. The Meta Mates are used to teach the strands of mathematical reasoning of proving, explain, pattern sniffing, predicting and concluding. Again, orcay is the vehicle through which we teach these important skills.

## Implementation

#### **Content and Sequence**

- Long-term planning is deliberately spaced and interleaved for revision and over-learning of the content. School sequencing materials are used as the starting point for curriculum planning, which is structured into four cycles. In each cycle, all strands of maths are taught.
- We believe mastery is achieved over time and through practice; this is reflected in the design and implementation of our maths curriculum and maths lessons.
- Retrieval Practice allows children to become secure within their knowledge and skills. Activities are used to revise previous content. These are useful assessment opportunities: feedback is given to groups or the whole class as identified. Retrieval Practice starters are used to revise previous content and address misconceptions as identified through observing children's work and responses. Teachers have the freedom to determine the most useful learning to retrieve, and this is balanced alongside the Ebbinghous forgetting curve of sequenced retrieval.
- Every day, children count and practise essential number knowledge. This is sequenced in such a way as to equip children with the most useful knowledge for subsequent reasoning lessons. The Number Knowledge session is systematic and deliberate: teachers model, children practise through call and response
- Arithmetic is taught discretely from year 3. This is sequenced to equip children with the calculation methods they need to apply in subsequent reasoning lessons.
- In Foundation Stage Two, children build a secure foundation of mathematics. Learning is contextualised and given purpose within the continuous provision. Adults lead learning through direct teaching, group work and observations of independent learning. Subitisation, number sense and counting are a significant focus of the curriculum.
- From year 1, the *Learning Journey* model is used to sequence the reasoning learning of a given objective. Component steps on the learning journey are progressive. Within each step, children have the opportunity to *acquire/refine, practise/apply*, and *extend/deepen* their learning. Each level of challenge builds on prior learning and extends thinking. Problem solving and reasoning are inherent at every level of learning, and concrete manipulatives are used by all children to scaffold and deepen thinking.
- Component steps are intentionally planned so learning is cumulative and revisited across four week cycles, to give all children the opportunity for deliberate practice and the tools to reach a greater depth standard when appropriate.

#### Teaching and Learning, Assessment and Feedback

- Starting points are identified through accurate teacher assessment and prior learning.
- Summative assessment is made towards the end of each cycle using assessment materials curated by us, including Maths No problem assessment resources, to match the content of our curriculum. Assessment checks what has been learnt (remembered) and analysis informs subsequent retrieval practice (teachers identify the things children need more opportunities to remember) and informs periods of consolidation. The curriculum model allows flexibility in order to respond to the strengths and needs of children.
- The intended learning is always the focus of actions in the classroom. Activities and resources are carefully chosen and deliberately designed to focus effort towards practising the learning intentions. Activities are rich in problem solving, reasoning and purposeful thinking. Children record their work with precision, care and pride.
- The working wall displays the steps of learning, and useful scaffolds and models for children to refer to in order to build independence.
- Reasoning is a right of all children at all stages of learning, not a privilege of the highest attaining.
- Concrete resources are the right of all children, not the crutch of the lowest attaining.
- Feedback is given is response to timely and continuous formative assessment in every lesson. Teachers use a range of formative assessment tools, including questions and observations to gauge children's level of understanding and knowledge. This is used to either offer support and scaffolds, or to give opportunities to deepen learning. Feedback is given in line with our feedback policy, including *Yippee Yellow* and *Green Pen Work* to check, consolidate or challenge.

### Impact

- No ceiling is placed on any learner: teaching groups are flexible and adapted according to emerging learning needs and the level of support that is needed to enable all children to access the right level of challenge and way of learning for their needs. Children speak positively about the ability to drive their learning through self-assessment and the opportunities they have for extra practice time or additional challenge that the learning journey affords them.
- Nearly all children leave Totley Primary School having achieved at least the expected standard and as confident mathematicians, ready to take on the next stage in their education. Many reach a greater depth standard.
- SEND children make at least expected progress and reach their attainment targets.
- Disadvantaged children make progress that is at least in line with their peers.
- Children leave Totley Primary School as confident, knowledgeable mathematicians and with a positive attitude towards mathematics.

Early Years Foundation	2022		202	22			2022	
Stage 2		Key Stage One	Expected standard	High level	Key Stage Two	Expected standard	High level	KS1 to KS2 Progress Measure
Children reaching a GLD	80%		85%	21%		88%	28%	+2.4

				What i	s in the w	orld aro	und me?				Wha	t happen	s in the w	orld arou	nd us?			How	do we k	eep the	world su	per?	
Curriculum	h		Autumn	1 (7 Weeks	s)		Autumn	2 (7 Week	s)	Spri	<b>ng 1</b> (6 V	Veeks)		Spring 2	(6 Weeks)		Sum	mer 1 (6 W	Veeks)	S	ummer 2	<b>2</b> (7 Wee	ks)
Questions		What is it like at school?	What does my family look like?	What is special to me?	What is Diwali? (24.10)	What is harvest?	What is my favourite story?	What is Hanukkah? (18-26.12)	How is Christmas celebrated?	What is it like where I live?	Let's celebrate Chinese New Year!	Which comes first the chicken or the egg?	Where does it live and how does it grow?	How are weddings celebrated around the world?	What is Ramadan? (22.3- 21.4)	How is Easter celebrated ? (9.4)	What makes our world super?	How do we keep our world super?	What makes me super?	How does art make the world a better place?	Pirates	How have I changed in a year?	Trar
	Number focus	0 / 1	2/3	4 / 5	Subitising to 5	6/7	8 / 9	10	Subitising to 5	Counting in 2's	Countin g in 5's	Counting in 10's	11 / 12	13 / 14	15	16	17 / 18	19 / 20	Odd and Even number s	Place Value	Odd and Even numbers	Place Value	
	ber			1	1		1	1	Countin	g marbles, cour	-	ng up (Counting		-	ackwards etc)	1	•	I	1		1	1	_
	Jumb nse								Coun	tina is unavoido		age of ordinal nu vision – tidy-up tim			nt of objects								
	Daily Number Sense											val challenges in											
									Counting	and understand	ding of number	r is encouraged ir	n other areas of t	he provision as p	art of challenges	;							
	ure									Language of	f time, dates, d	lays and months -	- daily routines /	timetable / cale	ndar								
	Time / Measure								Food Tech:			asuring ingredien	-			ts							
				1			1	1	1	•	Addition	Ι		1				Γ		_	I		
Mathematics	Number and Numerical Patterns	ВА	SELINE	Orally counting objects 1:1 Subitising Orally counting 1-10		Autumn Number line Ordering numbers 0-5 / 0-10 Number formation Orally counting objects 1:1 Orally counting 1- 5/1-10	Addition / Subtraction One More than a number 0-10 One Less than a number 0-10	How tall am I? Orally counting objects 1:1 Orally counting 1-10	Christmas Counting Estimation	Ordering numbers 0-5 / 0-10 Number formation	Number Bonds to 5 / 10 Subtraction Taking a one-digit number away from another up to 10 Challenge: from numbers up to 20 Chinese New Year Ordinal numbers	Doubling Halving	Counting Careful 1:1 counting of BeeBot steps 1 more / 1 less	Addition Repeated addition to solve problems			Addition and Subtraction Using numicon Place Value Comparing amounts	Doubling Halving		Place Value Comparing numbers	Addition Counting in 2's, 5's and 10's	Addition / Subtraction Using a number line	
	Shape, Space and Measure (Non-Statutory)	ВА	SELINE	Ri Namir Be	nosaur pictures / angoli Patterns (Woodwork) ng basic 2D shapes egin to identify properties D shapes to create pictures			How tall am I? Comparing height Measuring height using non-standard units	Christmas Pictures Naming basic 2D shapes Begin to identify properties Use 2D shapes to create patterns		Woodwork 2D shape patterns Naming basic 2D shapes Begin to identify properties		<b>Beebots</b> Positional language		2D shape Sort and compare shapes by their properties.	<b>3D Shape</b> Sort and compare shapes by their properties.			3D Shape Using 3D shapes to play and build Discussing and comparing 3D shapes based on their properties		Using coins – Begin to understand and compare the value of coins		
	Retrieval Practise				Counting objects and matching to numeral	Naming basic 2D shapes Using 2D shapes to make a repeating pattern	Counting objects on a number line	Repeating patterns with autumn shape printing	Counting Christmas objects	One More / One Less	Measuring and comparing the height of the animals from the CNY story	Missing Number tracks	Number Bonds to 5/10	Addition / Subtraction	Have I gotten taller? Comparing height Measuring height using non-standard units	Doubling and Halving	Missing number tracks	2D/3D shape	Addition / subtraction using numicon	Positional language (BeeBots) 3D Shape	Number bonds	Comparing heights Have I grown? How much have I grown?	

		What's in	the worl	d aroun	d me?		What	happens in	the world	around	d us?		How	do we keep	the wor	Id super?	?
Curriculu	Α	utumn 1			Autumi	n 2		ring 1		Spring 2			Summ			Summer	_
m Question s	What is it like at school?	What does my family look like?	What is special to me?	What is harvest?	What is my favourite story?	How is Christmas celebrated?	Do bears live in Totley?	How do people celebrate around the world?	Which comes first the chicken or	Where does it live and how does it	How is Easter celebrated?	What makes our world	How do we keep our world	What makes me super?	How does art make the world a better	Children's Choice: Pirates	How have I changed in a year?
									the egg?	grow?		super?	super?		place?		
	Stable Order: Under	standing the ver	bal sequence	of counting; b	eing able to so	ay the number nar		Mathemat		dren in the line	e, doing the cale	ndar dates					
	One-to-One Corres	pondence: Unde	erstanding that	when saying t	the names of t	the numbers in seq	uence, each objec	ct receives one count	and one only or	ne count. Dur	ing taught sessio	ns, tidying up	)				
Principles			-					ing taught sessions, tic									
of Counting							ime. For example, o	any set of objects can	be counted as	a set, regard	less of whether th	ney are the so	ame colour, s	hape, size, etc. This c	can also incluc	le non-physical	things such as
	sounds, imaginary c	-					riaht-to-left, in a rar	ndom fashion—as long	a as every obiec	t in the set is a	aiven one count	and only one	e count.				
	Numbers of the wee				f the week: 6,7	-	-	ounting in 2's, 5's &	Numbers of th		-	· · · · · ·	0, 11, 12, 13,	14. 15	Numbers 16	17, 18, 19, 20	
	To be able to count		nt with one-to-			y and with one-	<u>10's</u>	<u> </u>			o form numbers			o form Numbers 0-		be able to for	m Numbers 14-
	one correspondence				espondence.			es accurately with	11-15 confide			15 confide		IOIIII NOITIDEIS 0-	20		III NOITIDEIS 16-
	To be able to match numbers 0-5 and 6-	10 using languag	ge of more,	compare n	to match amo umbers using l	language of	one-to-one corre	espondence. atch amounts and	To be able to and say what				to solve add	ition and a range of ways.		o confidently or vhat one more	rder numbers 0- or one less is
	less, fewer or the sai Numicon, dominoes arrangements and g	s, fingers, numer	al, irregular	(counters, o fingers, mo	fewer, the sam dice, Numicon ney numeral, ir ents and group	rregular	compare using n language (coun		To be able to backwards us			To be able		nbers and count		o count forward on a number lin	
	To begin to able to growing accuracy.	form numbers 0-	10 with		nd be able to f	form numbers 0-10	irregular arrange	ments)	To know what	halving mea	ns and be able	To be able		ually (part, part,	To independ	lently solve subt	traction
	To be able to order one more or one les			,		pers and say what	numbers 11-15 w accuracy.		to use halving equal and eve		ch as sharing,	whole)	to halve nur	nbers.		using a preferre	
	To be able to subitis				or one less is.			der numbers and say	To be able to	halve shapes	and numbers.	To know n	umbor facts	ocus on odds and		using a preferre	
	dominoes, fingers, n arrangements. Reco without counting.				nything can be unt actions and	e counted and be d sounds.	what is one more confidently.	e or one less	To know that I	nalves are eq	ual.	even.	Sinder lacis,			o halve numbe alving number f	
	thing.			dominoes, arrangeme	fingers numerc ents. (Recognisi	ing different	the number line	number line and use	,			doubling fo	acts.	umbers and recall	To be able to double num		now and recall
Number and				To begin to	know the med	aning of and	To know the med		To be able to number facts.	begin to reco	all halving	To be able and 10 co		nber bonds to 5	To be able to confidence.	o count in 2s, 5s	s and 10s with
Numerical Patterns				0	+', '-' and '=' s at addition inve	olves combining	U U	ble to solve some	To be able to number facts.	begin to reco	all double	To be able different c		fferent amounts in			
					e groups of ob	ojects. Ive some addition	addition number concrete object	sentences using s.	To be able to whole. Focus		v using part, part evens.		-	numbers to 12 ding taking away			
					Ũ	concrete objects. up gets smaller	U U	ble to solve some ber sentences using	To know odd	and even nur	mbers to 10	counting b facts.	ack or on an	d recalling number			
					ething is taken			p gets smaller when	then 20			To be able	to count in 2	s, 5s and 10s			
					be able to sol number sente		something is take		dominoes, fing	gers numeral,	dice, Numicon, irregular						
				concrete o		Ũ	To begin to solve sentences with c	subtraction number oncrete objects.	arrangements								
				To begin to again.	know a doubl	le is the same	To be able to be	gin to recall double	methods. (Fing	gers, Numicor	ferent addition n, manipulates,						
				To be able concrete re		numbers using	facts. To be able to sub	pitise different	number lines of To know and o	.,							
					and what an es make sensible	stimation is and estimates.		at ordinal numbers	bonds to 5.		- 2						
							are used to desc To use ordinal nu	ribe. mbers to explain									
							where an anima	l came in a race.									

			I			
	To know different times of the day, days of the	To know that we can measure how long or	To recognise and know the value of	To use non-standard units of measure to	To know and recognise coins and be able	To be able to recognise different coins
	week and months of the year.	tall an object is and use this to compare.	1p,2p, 5p, 10p, 20p and £1.	measure and compare length and height.	to add amounts using coins.	and make amounts using them.
	To show interest in 2D shapes and be able to use these to create a picture or repeating pattern.	To use non-standard units of measure to measure and compare length and height.	To know that coins are used in exchanging for things or services and use this in practical play, beginning	To confidently name common 2D shapes and shape properties.	To use a range of coins to make different amounts.	To be able to talk about their day, referring to different times of the day.
	To name common 2D shapes and shape properties.	To know that we can measure how much something weighs and use this to compare.	to use the concept of 'giving change'.	To show interest in 2D shapes and be able to use these to create a picture or repeating pattern.	To know different ways we tell and record the time.	To confidently recognise and name common 2D shapes using their properties.
	To be able to select and rotate shapes building an awareness that a shape can have shapes within it.	To use balance scales to compare heavier/ lighter.	To begin to know that a clock is used to tell time.	Use positional language confidently to make comparisons and describe.	To be able to make comparisons with length, weight and capacity.	To confidently recognise and name 3D shapes using their properties.
Shape,	To begin to use money in role play, beginning to recognise different coins.	To use non-standard units of measure to weigh and compare.	To be able to talk about patterns in events using language first, then, after before.	To confidently recall days of the week and months of the year.	To know and be able to talk about some 3D shapes and shape properties.	To be able to recognise, complete and create their own patterns.
Space and Measure	To begin to know different times of the day, days of the week and months of the year.	To know that coins are used in exchanging for things or services and use this in practical play.	To begin to know and be able to talk about some 3D shapes and shape		To recognise 3D shapes in the environment and in their play (e.g. building/ malleable)	To be able to make comparisons with length, weight and capacity using non- standard units of measure.
	To use positional language to describe themselves or others.	To be able to recognise some coins and begin to match amount to coin values 1p,2p, 5p	properties. To recognise 3D shapes in the environment.		To confidently recall days of the week and months of the year.	To confidently recall days of the week and months of the year.
		To name common 2D shapes and shape properties.	To be able to talk about and identify patterns and create own patterns.			
		To show interest in 2D shapes and be able to use these to create a picture or repeating pattern.	To confidently recall days of the week and months of the year.			
		To know different times of the day, days of the week and months of the year.				

Year One	1	2	3	4	5	6	7	8	9	10
	Subitise to 5 Teen numbers	Reading numbers to 100 Partition numbers	1 more 1 less Count in 10s	Number bonds to 10 Teen numbers	1 more 1 less Number bonds to 20	Count in multiples of 10 up to 120 Odd / even (numicon)	Shape names & properties (e.g. number of sides) Reading numbers to 100	Subitise teen numbers (Numicon, bar model, array) Lots of 10s	Doubles Number bonds	Count in 2s up to 24 Subitise – teen numbers
Autumn	Place Value Counting and understanding of numbers within 100. WALT count and understand numbers within 100. -sort objects -count objects -count objects from a larger group -represent objects	Place Value 1 more, 1 less Counting in 2s. WALT find 1 more. -count on from any number -1 more -1 less -compare groups by matching	Addition _ + _ using the part-whole model. WALT add numbers -Part-whole model -Addition- adding together -Addition- adding more -Addition problems	Subtraction using a part- whole model WALT find a part. WALT subtract by finding a part. WALT find out how many are left. WALT find a part.	Multiplication Count in 2s, 5s and 10s to add equal groups. WALT add equal groups -Count in 2s -Count in 10s -Count in 10s -Count in 5s -Recognise equal groups -Add equal groups	Shape Recognise common 2D shapes from their properties. WALT recognise common 2D shapes from their properties -recognise and name 2D shapes -Make patterns with 2D shapes	Measure Comparing length. WALT measure and compare length -compare lengths and heights -measure length using objects -measure length in centimetres	Time Language of time, dates, days and months. Read the time to o'clock Understanding of <i>half.</i> WALT use language of time, dates, days and months WALT tell the time to o'clock -days of the week -months of the year -hours, minutes and seconds -Tell the time to the hour	Consol	idation
	1	2	3	4	5	6	7	8	9	
	2s sequence Reading numbers to 100	Recognising diennes (2digit) Place value – tens/ones	number bonds to 10 Doubles	Teen numbers	Place value tens/ones bonds 10	Number bonds to 20 Subtraction (within 10)	Addition Count in 2s	3D shapes Counting in 10s	+10 -10	
Winter	Consolidation	Place Value Understand and compare 2-digit numbers. WALT compare numbers -Partition into tens and ones -Fewer, more and the same -Less than, greater than, equal to -Compare numbers -the number line to 50 -1 more, 1 less	Money Understand and compare value of coins WALT understand and compare the value of coins -unitising -recognise coins- recognise notes -count in coins	Addition +_using a number line WALT add 1 digit and 2 digit numbers up to 30 -add by counting on -add one susing number bonds -find number bonds to 20 -use doubles to 20	Consolidation	Subtraction using a number line WALT subtract 1 digit a 2 digit numbers up to 30 -subtract ones using number bonds -subtraction- counting back -subtracting- finding the difference	Multiplication Count in 2s, 5s and 10s to solve 1-step multiplication problems. -make arrays -make doubles	Shape Recognise common 3D shapes by their properties WALT identify, describe and sort 3D shapes. -recognise and name 3D shapes -sort 3D shapes -make patterns with 2D and 3D shapes	Measure Comparing weight. WALT measure and compare the mass of objects -heavier and lighter -measuring mass -compare mass	

	1	2	3	4	5	6	7	8	9	10
	Counting in 5s up to 60	Odd / even	doubles	Count in 2s up to 24	Counting in 10s	Teen numbers	Read numbers up to 100	+10 -10	Count in multiples of 5 up to 60	Count in multiples of 10 up to 120
Spring	Position and Direction Positional language (half, quarter turn of a circle). WALT describe position and direction -describe turns -describe turns -describe position- left and right -describe position- forwards and backwards -describe position- and below	Place Value WALT compare 2- digit numbers. -1 more, 1 less - Estimate a number on a number line -Compare numbers with the same number of tens -Compare any two numbers	Addition and Subtraction Compare answers WALT solve and compare addition and subtraction number sentences -related facts -missing number problems	Multiplication Count in 2s, 5s and 10s to solve 1-step multiplication problems. WALT count in 2s, 5s and 10s to solve 1-step multiplication problems. -make arrays -make doubles	Division Understand that division is sharing amounts into groups. WALT solve 1 step division problems -Make equal groups- groups -Make equal groups- sharing	Fractions To understand the concept of a half (objects, shapes and quantities). WALT find half of objects, shapes and quantities. -recognise a half of an object or a shape -Find half of an object or a shape -recognise half of a quantity	Shape Sort and compare shapes by their properties. WALT sort and compare shapes by their properties	Measure Comparing capacity. WALT measure and compare capacity. -full and empty -compare volume -measure capacity -compare capacity	Time Read and compare (earlier/later) times on a clock. WALT compare earlier and later times. -before and after -tell the time to the half hour	Consolidation
	1	2	3	4	5	6	7	8	9	10
	Count in multiples of 5 up to 60 Count in multiples of 10 up to 120	+1 and -1	+10 and -10	Subitise teen numbers (Numicon)	Count in multiples of 5 up to 60 Count in multiples of 10 up to 120	Odd or even	Bonds to 10	Read numbers to 100	Count in multiples of 5 up to 60 Count in multiples of 10 up to 120	Count in multiples of 5 up to 60 Count in multiples of 10 up to 120
Summer	Consolidation	Place Value WALT compare the answers to calculations using all four operations. -Recognise equal groups -Add equal groups -Make equal groups- grouping -Make equal groups-sharing	Addition and Subtraction Solve problems using money and measures. WALT use addition and subtraction to solve money and measure problems. -related facts -missing number problems	Multiplication Count in 2s, 5s and 10s to solve problems, and compare answers. WALT compare multiplication answers. -make arrays -make doubles	Division Understand division is sharing an amount into groups. WALT share and group to divide.	Fractions Half and quarter of shape, amount and objects. WALT use half and quarter. -Recognise a quarter of an object or shape -Find a quarter of an object or shape -Find a quarter of a quartity	Shape Sort and compare shapes by their properties. WALT compare and sort shapes by their properties.	Measure Understand and use cm and m to measure and compare. WALT measure length to the nearest cm and m.	Time Read clock to quarter past the hour. Record time using hours, minutes and seconds by reading a digital stopwatch. WALT read and compare the time to o'clock, half past and quarter past.	Consolidation

Year Two	1	2	3	4	5	6	7	8	9	10
	Bonds to 10	+1 and -1	+10 and -10	Count in 2s up to 24	Count in multiples of 10 up to 120	Count in multiples of 5 up to 60	2D Shape	3D	Bar model Bonds to 20	Odd/Even
Autumn	Place Value Representing number -dienes -partitioning -number facts -fact families Ordering number Place value of two-digit number (10s, 1s) WALT use the numbers to 20. WALT ount objects to 100 by making 10s. WALT recognise tens and ones. WALT use a place value chart.	Place Value Identify 1 more and one less. -10 more and 10 less WALT partition numbers to 100. WALT write numbers to 100 in words. WALT flexibly partition numbers to 100. WALT write numbers to 100 in expanded form.	Addition Use addition facts to 20. Derive and use related facts up to 100 WALT use related facts. WALT use bonds to 100. WALT add and subtract 1s. WALT add and subtract 1s. WALT add by making ten. WALT add three 1-digit numbers. WALT add to the next 10. WALT add across a 10.	Subtraction Subtraction facts to 20. Derive and use related facts up to 100 WALT subtract across a 10. WALT subtract from a 10. WALT subtract a 1-digit number from a 2-sigit number. WALT find 10 more or 10 less.	Multiplication Count in steps of 2, 3, and 5 from 0, and in 10s Multiplication facts for the 2, 5 and 10 times tables WALT recognise equal groups. WALT make equal groups WALT add equal groups WALT use the multiplication symbol. WALT use arrays. WALT count in 3s.	Division Recall and use division facts for the 2, 5 and 10 multiplication tables. WALT make equal groups – sharing WALT make equal groups – sharing WALT make equal groups – sharing WALT use the 2 times-table WALT divide by 2 WALT double and halve.	Fractions Recognise, find, name and write simple fractions of a length, shape, or quantity WALT use parts and whole WALT use equal and unequal parts WALT find a half. WALT find a duarter. Measure Compare and order lengths, mass or capacity WALT compare mass. WALT measure in grams. WALT use the four operations with mass. WALT compare volume and capacity.	Shape properties of 2-D and 3D shapes (symmetry, sides, vertices, faces etc.) WALT recognise 2D and 3D shapes. WALT use lines of symmetry on shapes. WALT sort 2D shapes. WALT sort 3D shapes.	Consolidation, c	ontingency and gap alysis
	1	2	3	4	5	6	7	8	9	
	Numicon bonds to 7 8 9	Whole part bonds to 789	Time	Mixed Shape	Recall multiplies of 5 up to 12x10 in any order	Flipped Bonds to 10 (e.g. 10 = 6+4)	Bonds to 20	Time		
Winter	Place Value Estimate, represent and identify numbers on a number line. Read and write number in words (to 100) WALT use 10s on the number line to 100. WALT use 10s and 1s on the number line to 100. WALT estimate number son a number line. WALT compare objects.	Money and Place Value Use symbols for pounds (£) and pence (p); combine coins to make amounts WALT count money in pence. WALT count money in pounds (notes and coins). WALT count money- pounds and pence WALT make the same amount.	Addition and subtra WALT add and subtr WALT add two 2-dig across a 10) WALT add two 2-dig (across a 10) WALT solve mixed a subtraction problem WALT compare num WALT compare num WALT complete mis problems.	act 10s. it numbers (not it numbers ddition and ns. uber sentences.	Multiplication Solve problems involving multiplication and division using concrete resources and arrays. WALT use the ten time-table WALT use the 5 times-table WALT use the 5 and 10 times- table	Division Solve problems involving division, using materials and arrays. WALT use odd and even numbers. WALT divide by 10. WALT divide by 5	Fractions Write simple fractions e.g. 1/2 of 6 = 3 and recognise the equivalence of 2/4 and ½ WALT find a third. WALT find the whole. WALT use unit fractions. WALT use non-unit fractions. WALT recognise equivalence of two quarters and one half. WALT find three quarters.	Measure Choose and use the best units to estimate and measure length/height/mass (kg / g) WALT measure in millilitres and litres. WALT use the four operations with volume and capacity.	Consolidation Week	

		WALT compare amounts of money. WALT make a pound.			-					10
	1 Coins, notes and	2 Coins, notes and	<b>3</b> Reading 101 102	4 Missing number	5 Draw dienes to	6 +-x÷<>=	7 Recall facts to 10 + -	8 Scales - metre stick	9 Count in 2s up to	10 Count in multiples
Spring	Place Value Apply to money- giving change. WALT compare objects. WALT compare numbers. WALT order objects and numbers.	Addition Solve problems with quantities and meas Subtraction Solve problems with quantities and meas WALT add two 2-dig a 10) WALT solve mixed a subtraction problem WALT compare num WALT complete mis problems.	sures. in numbers, sures. it numbers (across ddition and ns. iber sentences.	Multiplication	sing mental able facts) and exts. nd 10 times-table d even numbers.	Shape Identify 2D shapes as the face of 3D shapes. Compare and sort 2D and 3D shapes WALT sort 2D shapes. WALT sort 3D shapes.	Measure Choose, estimate and use measures- cm, m, °C, ml and l. WALT use temperature. Position Order and arrange into patterns and sequences (objects and numbers). WALT use the language of position and movement. WALT describe turns. WALT use shape patterns with turns.	Time Tell and write the time to five minutes including quarter to/past. WALT tell the time to quarter hour intervals. WALT use the hours in a day.	24 Data Ask and answer questions by counting objects in categories or sorting objects into given categories. WALT make tally charts. WALT read information in dates. WALT use block diagrams. WALT draw and interpret pictograms.	of 10 up to 120 Consolidation Week
	1	2	3	4	5	6	7	8	9	10
	Count in multiples of 5 up to 60	Recall facts to 10 + -			Mixed multiples	Odd/ Even	Time	+9	-9	Review
Summer	Place Value Compare numbers using <= and > Plot, with increasing accuracy, numbers on a blank number line. WALT compare objects. WALT compare numbers. WALT order objects and numbers.	Addition and Subtraction Recognise addition and subtraction as inverse operations. WALT add two 2- digit numbers (across a 10) WALT solve mixed addition and subtraction problems.	SATs	SATs	Multiplication and division Recognise multiplication and division as inverse operations. Use Estimation	Time Tell and write the time to five minutes including quarter to/past. WALT tell the time to 5 minutes. WALT use minutes in an hour.	Data Ask and answer questions by counting objects in categories or sorting objects into given categories. WALT make tally charts. WALT read information in dates. WALT use block diagrams. WALT draw and interpret pictograms.	Shape properties of 2-D and 3D shapes (symmetry, sides, vertices, faces etc) WALT describe 2D and 3D shapes. WALT compare 2D and 3D shapes. WALT make patterns with 2D and 3D shapes.	longer than a we single session recal	eks to give space for ek for some areas or I of taught topics. Year ready.

WALT compare number sentences. WALT complete missing number problems.				

Year 3															
Autumn	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Number Knowledge	Times	Tables 2s, 5s	and 10s	Number b	onds to 20	Times ta	able 3s	Counting in 2 from any	10s and 100s y number	Pairs to 100	Times T	ables 4s	Times Tab	les 3s and 4s	
Maths	numbers	resent and pa to 100. resent and pa		WALT add and WALT add 1s WALT subtrac WALT add 2 r WALT subtrac WALT add tw	d subtract 1s. d subtract 100s. and 10s across tt 1s and 10s acr numbers (no exo tt 2 numbers (no o numbers acro	a 10 ross a 10 change)	00	Division Grouping and sharing (division) WALT use sharing and grouping	Fractions Recognise an fractions (of a objects) with denominators WALT unders denominator fractions. WALT compa unit fractions WALT unders whole. WALT unders whole. WALT compa non-unit frac WALT compa non-unit frac	amounts of small s stand the s of unit re and order s. stand the stand the re and order tions.	Measure Use & Compare m/cm/m Use & Standard Units m WALT use scales WALT measure n WALT measure n WALT use equiva (kilograms and g WALT compare n WALT add and su WALT add and su WALT measure c and volume in m WALT measure c volume in litres.	Compare hass and capacity hass in grams hass in kilograms alent masses rams) hass ubtract mass apacity in mass illimetres	2D shapes WALT describe direction, turns and angles. WALT identify right angles. WALT compare angles as acute, right or obtuse angles. WALT measure and draw lines accurately WALT identify horizontal and vertical lines. WALT identify parallel and perpendicular lines. WALT recognise and describe 2D shapes.		
Spring	1	2	3	4	5	6	7	8	9	10	11	12			
Number Knowledge	Times	Tables 8s		•	Mixed 1	Times Tables	•	•	Bond	s to 60	Times by 1	10 and 100			
Maths	WALT par numbers many way WALT find 1000 mol WALT use line to 1,0 WALT est numbers number li WALT cor numbers	Addition, Subtraction and inverse (include mass, capacity and length into activities)Addition, Subtraction and inverse (include mass, capacity and length into activities)Multiplication and division (formal method)tables and sortangles as acute, right or obtuse angles.angles as acute, right or obtuse angles.angles as acute, right or obtuse angles.angles as acute, right or obtuse and law WALT multiply by 3angles as acute, right or obtuse and law WALT and 2-digit and 3- digit numbers.Ime - analogue clock WALT multiply by 3WALT as an and p.m. WALT subtract a 2-digit number form a 3-digit number bers on a bers up to 1,000 T compare bers up to 1,000 T order numbers 000Multiplication and division (formal method)WALT add 2-digit and 3- digit numbers.WALT divide by 4 WALT divide by 4 WALT divide by 4 WALT divide by 8WALT divide by 4 WALT divide by 8WALT divide by 4 WALT divide by 8WALT wather and analyse and analyse and analyse and talliesangles as acute, right or obtuse angles.Imme - analogue clock WALT wath T use anal use Roman numeasureWALT use inverse operations 000WALT use inverse operationsWALT divide by 8WALT divide by 8WALT wather and analyse and talliesand yet ical identify parallel and perpendiculand yet ical identify parallel and perpendiculand yet ical identify parallel and perpendiculindentify parallel and perpendicul					se Roman ne to 5 minutes. ne to the minute me on a digital d p.m. months and nd hours and minutes to d times								
Summer	1	2	3	4	5	6	7	8	9	ar lines. 10	11	12			

Arithmetic			Fluent in 5			
Number Knowledge	Bonds to 100	9, 11, 12 more and 12 less (24 clocks)		Mixed Times	ables	
Maths	Place Value (GAP ANALYS IS) ANALYS NUT convert between pounds and pence WALT convert between WALT add miney WALT subtract money WALT find change	Multiplication and division WALT multiply a 2-digit number by a 1-digit numbe (no exchange) WALT multiply a 2-digit number by a 1-digit number – with exchange WALT link division and multipolciatoin WALT divide a 2-digit number by a 1-digit number (no exchange) WALT divide a 2-digiti number by a 1-digit number – with remainders	Time – digital – 12 and 24 hour WALT read 24 hour time WALT convert between 12 and 24 hour time WALT convert between analogue and digital time	Fractions Add, order or compare WALT add fraction WALT subtract fractions WALT partition the whole WALT find non-unit fractions of a set of objects WALT reason with fractions of amounts	Statistics Tables, Pictograms and Bar charts WALT interpret pictograms WALT interpret bar charts WALT draw bar charts WALT read and use two-way tables	Consolidation

Yea	ar 4	1	2	2	4	F	6	7		9	10	11	12	13	14
Auti	umn	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Numb	ARITH			3	6					7		12			
er Knowl	Count ing	2,5,10	4	3	6	8	9	9	4,8	7	7	12	12	6,9	8
edge	Retrie val	Baseline	2,5,10	4	3	6	8	Baseline	9	4,8	6,7	9	12	12	Baseline
Maths		compare Tth Th.H.T WALT: rep different w WALT: rea numbers u and words WALT: finc a given nu	resent numb vays. d, write and up to 10,000 i d 1000 more o	ers in identify n numerals or less than	Place value Rounding WALT: round numl the nearest 10 WALT: round numl the nearest 100 WALT: round numl the nearest 1,000 TTRS DAY	oers to	Addition and sui + numbers with using formal me Inverse and esti (rounding) WALT: subtract numbers using f column subtract WALT: add 4 dig using formal col addition. WALT: use inver checking strateg addition and suf calculations. WALT: use roun- estimate answe checking strateg	up to 4 digits ethods mation 4 digit formal tion. it numbers lumn rse as a gy for ptraction ding to rs as a	Multiplicati on WALT: multiply 2 digit numbers by 1 digit number. WALT: multiply 3 digit numbers by 1 digit number.	Decimals ordering and comparing decimals & integers Fractions and decimals equivalence Use and apply decimal number WALT: read and recognise tenths and hundredths as a fraction of a whole. WALT: understand fraction and decimal equivalence. WALT: compare and order decimals and fractions WALT: round decimals	Place value Multiply and divide by 10, 100 and 1,000 WALT: multiply by 0, 1, 10, 100 and 1,000WALT: divide by 1,10, 100 and 1,000.	Measure Convert, compa calculate units of capacity and ma WALT: convert I and cm. WALT: convert I and km, kg and	of length, ass oetween oetween m oetween m	Place Value WALT: read, write and compare integers and decimals. WALT: understand negative numbers. WALT: use negative numbers.	Contingency, consolidation and gap analysis
Spr	ing	1	2	3	4	5	6	7	8	9	10	11	12		
Numb	ARITH		11												
er Knowl	Count ing	7	11	11,12	9	6	2,3,4,5,10	6	7	9	11	12	chant all		
edge	Retrie val	6,9	7	11	12	8,9	Baseline	6	7	9	11	12	Baseli ne		

Maths		Division Number p involving = WALT Use division WALT Divi remainder	<mark>-/x</mark> short de with	rectilinear sh WALT Calcul perimeter of shapes WALT Measu of shapes WALT Find th through cour WALT Explor	t the perimeterof hapes late the f rectilinear ure the perimeter he area of shapes inting re the between area	Time WALT Tell the to the neares t minut e WALT Read and use roman numer als	Assessment	Data Interpret & Present WALT solve problems using info in charts and tables WALT construct charts using info from a table WALT interpret and construct a line graph	Shape WALT identify right, acute and obtuse angles WALT classify and compare properties of quadrilater als WALT compare and classify triangles WALT Identify lines of symmetry	Contingency, consolidation and gap analysis	Calculation WALT add and subtract up to 4 digit integers WALT multiply and divide integers and decimals WALT Use formal calculation methods to solve problems	Decimals WALT So measure money problems involving decimals 2DP	olve e and s	Continge ncy, consolida tion and gap analysis
Sum	nmer	1	2	3	4	5	6	7	8	9	10	11		12
Numb er Knowl edge	Retrie val	8	3,4 Unofficial TTRS check	9,6	8	6, 7	all		пс		Gap analysis fr			
Maths		Fractions WALT co order miz numbers WALT un improper WALT co between numbers improper	x1 lesson. mpare and ked derstand fractions. nvert mixed	Arithmetic lesson: Time Convert hours to minutes etc WALT: convert between seconds, minutes an hours. WALT: convert between days, months and years.	c. position in first quadrant Describe movemen ts between positions as translatio ns WALT describe position using a		Place Value (Gap analysis WALTs)	Calculatio n WALT: use efficient methods to subtract. WALT: (retrieve) use checking strategies. WALT: (retrieve) column subtractio n and addition.	Decimals Solve measure and money problems involving decimals to 2DP WALT (retrieve) Solve measure and money problems involving decimals to 2DP.	Fractions Equivalent fractions WALT: find equivalent fractions WALT find equivalent fraction families. WALT find fractions of amounts. WALT subtract two fractions. WALT subtract from whole numbers. WALT subtract from mixed numbers.	Position and sha Plot specific poi and draw sides complete polygo	nts to ons	and co acute WALT: and co angles *streto	fy, order ompare & obtuse : order ompare

	on a grid.				
	WALT describe				
	translation				
	on a grid.				

Year Five	1	2	3	4	5	6	7	8	9	10
	Recall multiplies of 2- order	12 up to 12x in any	Recall multiplies of 2-12 up to 12x in any order	Bonds to 100	X 10 and x 100 any 2-digit number and 1 or 2 d.p. number (and divide)	Round to nearest 100	Read any 7-digit number State place value of a digit in any number up to 1million	Count forwards/back ward in powers of 10 from any number up to 1million	Count forwards and backwards in quarters/0.25	Bonds to 100
	Addition	Subtraction	Multiplication	Multiplication	Division	Division	Consolidate 4 operations	Equivalent Fractions	Compare Fractions	
Autumn		least 1 000 000 and e Value rds or backwards in up to 1 000 000 Value to at least 1 000 000	Add whole numbers w WALT solve addition r deciding which metho Subtract whole number digits WALT solve subtraction	nulti-step problems od to and why c <mark>raction</mark>	Multiplication Multiply numbers up to 4 digits by a one- or two-digit numbers WALT Multiply numbers up to 4 digits by a one- or two-digit numbers	Division Divide numbers up to 4 digits by a one-digit number WALT Divide numbers up to 4 digits by a one- digit number	Fractions Recognise and use the per cent symbol % and compare and order fractions, decimals and percentages WALT apply knowledge of tenths and hundredths to fractions, decimals and percentages	Sha Perimeter of comp rectilinear shapes WALT find the polygons and cor Calculate and co of recta WALT find the ar and compos	posite perimeter of mpound shapes mpare the area angles ea of rectilinear	Contingency, consolidation and gap analysis
	1	2	3	4	5	6	7	8	9	
Winter	X 10 and x 100 any 2-digit number and 1 or 2 d.p. number (and divide)	Negative numbers (counting forwards and backwards across zero)	Recall multiplies of 2-12 up to 12x in any order	Roman numerals and reading years written in Roman numerals?	Consolidation of number knowledge	Recall multiplies of 2 order	2-12 up to 12x in any	Recall multiplies of 2-12 up to 12x in any order	Mixed and Improper Fractions	
	Multiply & Divide (1 & 10 & 100)	Equivalent Fractions & Compare Fractions	Mixed and Improper Fractions	Inverse + -	Inverse x ÷	Add and Subtract Fractions	Consolidation of arithmetic	Multiply & Divide (1 & 10 & 100)	Mixed and Improper Fractions	

	Place Value WALT Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	Multiples, factors, factors, factors, from MALT understand the numbers WALT understand the mathematical stand standard sta	Properties of Number Multiples, factors, factor pairs and common factors, prime, square, cube WALT understand the properties of prime numbers WALT understand the properties of square and cubed numbers		DNS requivalent tion. ert improper and er equivalent oper and mixed	Draw and measure Identify. Know and line and round a po	use angles rules on a int calculate angles on a	Place Value WALT Interpret and use negative numbers in a variety of worded problems	FDP Solve problems which require knowing percentage and decimal equivalents WALT compare and convert between FDP	
	1	2	3	4	5	6	7	8	9	10
	X 10 and x 100 any 2-digit number and 1 or 2 d.p. number (and divide)	Round to nearest 100	Read any 7-digit number State place value of a digit in any number up to 1million	Count forwards/backward in powers of 10 from any number up to 1million	Count forwards and backwards in quarters/0.25	Bonds to 100	X 10 and x 100 any 2-digit number and 1 or 2 d.p. number (and divide)	Negative numbers (counting forwards and backwards across zero)	Recall multiplies of 2-12 up to 12x in any order	Roman numerals and reading years written in Roman numerals?
Coving	Multiply fractions by a whole number	Multiply by known facts	Divide by known facts	Square and cube numbers	Square and cube numbers	Equivalent Fractions	Decimals as fractions	Consolidatio n	Add and Subtract fractions	Multiply fractions by a whole number
Spring	FDP Solve problems which require knowing percentage and decimal equivalents WALT compare and convert between FDP	Shape Properties of 2D shapes. Know angles are measured in degrees: estimate and compare angles WALT calculate the interior angles of a range of triangle types WALT properties of quadrilaterals including regular, irregular, parallel and perpendicular WALT calculate the interior angles of various quadrilaterals		Measure Use, read, write and convert between standard units of length, mass and volume WALT estimate and compare different units of measure WALT I can multiply and divide by 10, 100 and 1000 to convert units of measure WALT estimate and calculate volume		Time WALT convert different units of time WALT solve problems involving times including timetables	FDF WALT find percentage of a given amount WALT find any percent amount	s (multiple of 10s)	Sh WALT know the 3D shapes WALT identify 3 representation	D shapes by 2D
	1	2	3	4	5	6	7	8	9	10
Summer	Consolidation of number knowledge	Recall multiplies of a order	2-12 up to 12x in any	Recall multiplies of 2- 12 up to 12x in any order	Bonds to 100	X 10 and x 100 any 2-digit number and 1 or 2 d.p. number (and divide)	Round to nearest 100	Read any 7-digit number State place value of a digit in any number up to 1million	Count forwards/bac kward in powers of 10 from any number up to 1million	Count forwards and backwards in quarters/0.25

	Consolidatio	on and in response to gap analysi	S		
Position Identify, describe and represent the position of a shape following a reflection or translation WALT plot shapes using co-ordinates in all 4 quadrants WALT translate a shape across 4 quadrants WALT reflect 2D shapes on a mirror line	Measure WALT estimate and compare different units of measure WALT Use all four operations to solve problems involving measures.	Data WALT Complete, read and interpret information in tables, including timetables. WALT Solve problems using information presented in a line graph	Proportion WALT Solve problems involving multiplication and division, including scaling by simple fractions and problems	Contingency, consolidation and in response to gap analysis	

Year Six	1	2	3	4	5	6	7	8	9	10
Year Six	1 Recall multiplies of 2-12 up to 12x in any order Addition and subtraction to 2 d.p. WALT compare, add and subtract numbers up to 10 000 000 and up to 3dp -Compare numbers with up to 7 digits and 3 decimal places.	2 Recall multiplies of 2-12 up to 12x in any order X and ÷by 10, 100 and 1,000 WALT compare, add and subtract numbers up to 10 000 000 and up to 3dp -Add and subtract numbers. - Add and subtract with decimal numbers.	Recall multiplies of 2-12 up to 12x in any order Dividing by 1 and 2 digit numbers WALT convert, compare and calculate fractions, decimals and percentages - Convert and compare between fractions, decimals and percentages. - Calculate the difference between fractions,	4 X 10 and x 100 any 2- digit number and 1 or 2 d.p. number Adding fractions with different denominators WALT understand and use algebra -Use formula expressed in words and algebraically. -Find pairs of numbers that satisfy equations. -Describe number sequences -Use algebra to solve problems	5 ÷ 10 and ÷ 100 any 2- digit number and 1 or 2 d.p. number Dividing fractions WALT convert units of measures WALT interpret data -Convert between standard units of measurement (lengths, mass and capacity). -Convert between miles and km. -Solve temperature problems. -Solve time	6 Fraction – decimal equivalents Finding percentages of amounts WALT use properties of shapes -Find unknown angles using shape property knowledge. -Classify and compare shapes based on their properties. -Find the area of shapes.	7Fraction - percentage equivalentsShort and long multiplicationWALT round whole numbers and decimals-Round numbers to a given amount-Round numbers to a solve problems.	2 d.p. bonds to 1 Multiplying fractions WALT use long multiplication Multiplicatio n WALT use long division Division -Multiply 4 digits by 2 digits -Multiply decimal numbers. -Divide 4 digit by 2 digit. -Divide decimal	9 Recall multiplies of 0.2-1.2 up to 12x in any order Order of operations WALT solve fraction calculations . Fractions with different denominat ors and mixed numbers, using the concept of equivalent fractions -Add and subtract fractions.	10 Contingency, consolidation and gap analysis
			decimals and percentages of amounts.		-Solve time problems.			numbers.		
	1	2	3	4	5	6	7	8	9	
Winter	State place value of a digit in any number up to	Continue number sequence (+/- 200, +/- 50 etc.)	Round to nearest 20, 50 and 100	Recall multiplies of 2-12 up to	Recall multiplies of 2-12 up to	Recall multiplies of 2-12 up	X 10 and x 100 any 2- digit number	÷ 10 and ÷ 100 any 2- digit number	Fraction – decimal equivalents	

	10million and			12x in any	12x in any	to 12x in	and 1 or 2	and 1 or 2		
	3 d.p.			order	order	any order	d.p. number	d.p. number		
	Square and cube numbers	Subtracting fractions with different denominators			Contingency,	consolidation and g	ap analysis			
	WALT	WALT calculate	WALT	WALT find	WALT	WALT	WALT	WALT	WALT use	
	understand and use ratio	the perimeter and area of shapes.	calculate angles	common factors.	identify, measure and calculate the	calculate using percentage	measure and draw angles using	interpret pie charts	knowledge of place value to	
	<ul> <li>-Use and simplify the notation of ratio.</li> <li>-Use ratio in scale drawings.</li> <li>-Use ratio to solve problems.</li> </ul>	-Calculate the area of a triangle. -Calculate the area of a parallelogram.	-Identify and use vertically opposite angles. -Identify and use the angles in regular polygons.	WALT compare fractions, decimals and percentages	parts of a circle. WALT calculate averages	S -Calculate percentages of amounts. -Find the 'whole' from a given	a protractor.		solve problems	
						percentage.				
	1	2	3	4	5	6	7	8	9	10
	Fraction – percentage equivalents	2 d.p. bonds to 1	Recall multiplies of 0.2-1.2 up to 12x in any order	Recall multiplies of 0.2-1.2 up to 12x in any order	State place value of a digit in any number up to 10million and 3 d.p.	Continue number sequence (+/- 200, +/- 50 etc.)	Round to nearest 20, 50 and 100	Recall multiplies of 2-12 up to 12x in any order	Recall multiplies of 2-12 up to 12x in any order	Recall multiplies of 2- 12 up to 12x in any order
Spring					Gap analysis and co	onsolidation				
	WALT use knowledge of fractions to solve problems	WALT use algebra to solve problems	WALT find the volume of shapes WALT solve measure problems	WALT solve problems involving the calculation of percentages	WALT solve problems involving similar shapes where the scale factor is known or can be found	WALT Calculate, estimate and compare volume of cubes and cuboids using standard units.	WALT Use angle facts to find missing angles. Properties of 2D shapes.		cy, consolidation and	
	1	2	3	4	5	6	7	8	9	10
Summer	X 10 and x 100 any 2- digit number	÷ 10 and ÷ 100 any 2-digit number and 1 or 2 d.p. number	Fraction – decimal equivalents	2 d.p. bonds to 1	Recall multiplies of 0.2-1.2 up to	Recall multiplies of 0.2-1.2	State place value of a digit in any number up	Continue number sequence (+/-	Round to nearest 20, 50 and 100	Recall multiplies of 2- 12 up to 12x in any order

and 1 or 2 d.p. number							in any der	•	12x in order	to 10n and 3		200, - et	-		
Contingency, consolidation and gap analysis	SATS	Additi on and subtra ction to 2 d.p.	X and ÷by 10, 100 and 1,000	Dividi ng by 1 and 2 digit numb ers	Addin g fractio ns with differ ent deno minat ors	Dividi ng fractio ns	Findin g perce ntages of amou nts	Short and long multip licatio n	Multip lying fractio ns	Order of opera tions	Squar e and cube numb ers	Subtra cting fractio ns with differ ent deno minat ors	Gap analys is and consol idatio n	Contingency, consolidation and gap analysis	Transition
			e scale and Iculate dur	proportion ation.	I.	line, bar WALT co graph. WALT ca problem	esent and i and climate nvert using lculate and s. lculate time	e graphs. a line conv compare ir	rersion n money	WALT use problems WALT cal amounts.	culate perc	ve money entages of			

Week		Reasoning	Stretch
	Recall from EY:	Compares two groups of objects, saying when they have the same numbers. Shows an interest in representing numbers. Counts objects to 10, and beginning to count beyond 10. Matches numerals and quantity correctly.	
<b>1</b> Place Value		Count to and across 100, forwards from any given number.	<ul> <li>Fill in the missing numbers 5 _ 17 _ , 161 etc.</li> <li>Pick a starting and finish number. Roll a dice to generate a 2-digit number (or from a third pile of cards in a different colour- consider the numbers in this pile carefully). If you count from your starting number and finish at your final number, will you say the number you rolled?</li> </ul>
	or Year 1	Understand and partition numbers to 30.	• Which number is the odd one out from 34, 43, 37, 39, 31 etc. Consider the sets of numbers carefully. Is there more than one number that could be the odd one out?
	Teach for Year	Can read and write numbers up to 100.	<ul> <li>Use two sets of number cards. 1 set with numerals 1-20. 1 set with words 1-20.</li> <li>Play in groups or a pair. Take in turns to pick a numeral card and a word card. Say the number on each card. If they match, you win the pair of cards. If they don't match, you put them back.</li> <li><i>I can make all the numbers from 11- 20 using the digits 1-9.</i> True or false? Prove it.</li> <li>Correct the mistake in each sequence:</li> <li>34, 35, 36, 38, 39</li> <li>98, 97, 96, 95, 93</li> <li>78, 79, 18, 81, 82</li> </ul>
	Recall from EY:	Says the number that is one more than a given number. Count reliably with numbers from 1 to 20 and place them in order.	
<b>2</b> Place Value	Teach for Year 1	Identify 1 more and one less.	<ul> <li>One more than my number is 16. What's my number?</li> <li>One less than my number is 11. What's my number?</li> <li> is one more than 12.</li> <li>12 is one less than</li> </ul>
	Teach fo	Count to and across the tenth multiple in 2s.	<ul> <li>Gary takes 13 socks out of washing machine. How many pairs can he make?</li> <li>In the second load of washing, he washes 17 socks. How many pairs does he have altogether?</li> <li>If I start on 9 and count in 2s, will I say 14? Explain why.</li> </ul>
3 Addition	Recall from EY:	Uses the language of 'more' and 'fewer' to compare two sets of objects. Finds the total number of items in two groups by counting all of them. In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.	
Addition	Teach for Year 1	Read, write and interpret mathematical statements involving addition and equals.	<ul> <li>Using the number 0 – 9, how many ways can you complete the number sentence:</li> <li>_ + _ = _</li> <li>How many different calculations are there?</li> <li>What do you notice?</li> </ul>

		Add 1-digit and 2 digit numbers up to 30 practically.	<ul> <li>→▲→</li> <li>→▲→</li> <li>→▲</li> <li>→▲</li> <li>→▲</li> <li>→▲</li> <li>→▲</li> <li>↓</li> <li>↓<!--</th--></li></ul>
		Add 1-digit numbers and 2-digit numbers using a number line.	the size of numbers most appropriate for their stage of learning.     •
		Represent and use number bond additions to 20.	<ul> <li>Which one is the odd one out?</li> <li>Present children with a range of bonds to 12, 14, 16, 18 and 20.</li> </ul>
	Recall from EY:	Finds one more or one less from a group of up to five objects, then ten objects. In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.	
		Read, write and interpret mathematical statements involving subtraction and equals.	<ul> <li>_= 7 How many calculations can you complete? Why can't the digits 8 or 9 be used?</li> <li>There are no more than 10 counters in a bag.</li> <li>How many counters could be in the bag? Why can't it be six?</li> </ul>
<b>4</b> Subtraction	· Year 1	Subtract 1-digit and 2 digit numbers up to 30 practically.	<ul> <li>Amir has 5 counters in total. Each of his counters are either in a bag or a cup. How many different ways could the counters be split between the bag and the cup?</li> <li>Write 8 number sentences to go with each. Are there any sets of number sentences the same? Why?</li> </ul>
	Teach for Year 1	Subtract 1-digit numbers and 2-digit numbers using a number line.	<ul> <li>Race to zero.</li> <li>Start on 20. Take turns to roll a dice and subtract this amount. The first person to land on zero wins.</li> <li>What would you like to roll? Why? Why would you not want to roll a 1?</li> </ul>
		Represent and use number bond subtractions to 20.	Compare two bar model and pictorial subtractions using < and >.
	Recall from EY:	Estimates how many objects they can see and checks by counting them. Finds the total number of items in two groups by counting all of them.	
		Count in multiples of 2s.	•
5 Multiplication	Teach for Year 1	Solve mathematical statements using repeated addition.	<ul> <li>Complete the array and write two different number sentences to describe the finished array.</li> <li>•</li> </ul>
		Solve 1 step multiplication problems.	Rosie and Eva have equal groups of either 2, 5 or 10.

			<ul> <li>Each of their totals is less than 40.</li> <li>Rosie has 5 equal groups and Eva has 3 equal groups. Eva's total is more than Rosie's. What could they be counting in?</li> </ul>
	Recall from EY:	Selects a particular named shape. Uses familiar objects and common shapes to create and recreate patterns and build models.	
<b>6</b> Shape	Year 1	Shows awareness of similarities of shapes in the environment Recognise and name common 2D shapes (circle, triangle, square, rectangle, pentagon, hexagon) in regular and irregular forms. Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2-D shapes, and mathematical terms to describe shapes	<ul> <li>Part of a 2D shape is hidden. What could it be? Present different shapes with different parts covered. Ensure there is more than one possible answer for each to encourage children to create possible answers and explain their reasoning.</li> </ul>
	Teach for Year 1	Identify properties of 2D shapes (number of sides, vertices).	<ul> <li>Present children with a range of 3D shapes. Children identify the odd one out and explain how they know based on its properties.</li> <li>Present children with a range of shapes. How many ways can you sort the shapes into groups What do they have in common? Base criteria on the accurate shape properties.</li> <li>Present children with a pair of perpendicular lines. <i>How many ways can you complete the shape using one or more straight lines. What are the names of shapes you've drawn? What are their properties?</i></li> </ul>
	Recall from EY:	Orders two or three items by length or height.	
<b>7</b> Measurement	/ear 1:	Understand the language of length (longer shorter).	• I think these two pencils are the same length. How could you convince me that I'm incorrect?
	Teach for Year 1:	Describe and compare 2 items using language of length.	<ul> <li>In the classroom, can you find an object that is shorter than your pencil but longer than your rubber?</li> </ul>
	Теа	Begin to measure length using non-standard measurements.	• Give children pictures of objects next to unifix cubes showing their length/height. Sort into true or false by the statement below each or longer than 8 cubes or shorter than 8 cubes.
	Recall from EY:	Uses everyday language related to time. Orders and sequences familiar events. Measures short periods of time in simple ways.	
<b>8</b> Time	ear 1:	Understand the language of time (dates, days of the week, months of the year).	<ul> <li>Sort the days of the week into different categories e.g. schools days and non-school days.</li> <li>days is longer thanweeks. Alter with different units of time to consolidate how many days in a week, weeks in a month and months in a year.</li> </ul>
	Teach for Year 1:	Read a clock to O'clock.	<ul><li>True or False?</li><li>When it is 11 o'clock, both hands point to 11.</li></ul>
	Теас	Understand positional language (half, whole turn of a circle).	<ul> <li>Variations of</li> <li>I was facing, then I turn one and a half turns. Which way am I facing now?</li> <li>Describe the turns taken from before and after pictures presented in plan view.</li> </ul>

9	Revisit and consolidation in response to specific identified needs for individuals, groups and whole class.
10	

## Year One Winter Cycle

Week	Reasoning		Stretch
	Recall from EY:	Compares two groups of objects, saying when they have the same numbers. Shows an interest in representing numbers. Counts objects to 10, and beginning to count beyond 10. Says the number that is one more than a given number. Uses the language of more and fewer to compare two sets of objects.	
<b>1</b> Place Value	Teach for Year 1	Understand the value of the digits in 2-digit numbers.	<ul> <li>Listen to a number sequence. Predict the next number to be said.</li> <li>Listen to a number sequence and identify any missed numbers.</li> <li>Listen to a number sequence. Which number came one before the number I started on? If I counted five more numbers, which would the last number I say? Convince meis in this number sequence (without writing the entire sequence).</li> </ul>
		Compare 2- digit numbers.	<ul> <li>Partition numbers in different ways using concrete resources. E.g. 32 could be 3 tens and 2 ones, or a combination of tens and ones of equal value, represented with Denes.</li> <li> <u>Ten Ores</u> <u>5</u> <u>5</u></li></ul>
		Read and write numbers to 100.	<ul> <li>Identify the missing digits in a written number compared to a concrete representation/pictorial representation.</li> </ul>
	Recall from FY:	Use money in various contexts to establish that goods must be paid for. Talk about things they would like to spend money on. Become familiar with coins in everyday use. Use number skills in shopping activities.	
2 Money	Year 1	Recognise and use the symbols of pounds (£) and pence (p) when combining coins to make a given amount.	Use coins to make mathematical statements true. E.g+>
	Teach for Year 1	To compare the value of notes and coins.	What is the smallest number of coins you need to make? Which coins must be added toto make? The higher the value of the coin, the more sides it has. Is this true or false?
3 Addition	Recall from FY:	Uses the language of 'more' and 'fewer' to compare two sets of objects. Finds the total number of items in two groups by counting all of them. In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.	

	Teach for Year 1	Read, write and interpret mathematical statements involving addition and equals.	Arrange the numbers 2, 3, 4, 5, 6, 7, 8, 9, 10 11, 12, 13,14, 15, 16 [as appropriate] to make as many different number sentences as you can + _ = _
		Add 1-digit and 2-digit numbers to 30 practically.	I start on 8 and add on 9. My friend starts of 9 and adds on 8. Will we both end on the same answer? Prove you're right.
		Add 1-digit and 2-digit numbers using a number line.	How many ways can you complete this number sentence: += 19 1 2 3 4 5 6 7 8 9 10 11 2 13 14 15 16 17 18 19 20
		Represent and use number bond additions to 20.	True or false? There're are double the number of bonds to 20 than there are bonds to 10.
	Recall from EY:	Finds one more or one less from a group of up to five objects, then ten objects. In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.	
	Teach for Year 1	Read, write and interpret mathematical statements involving subtraction and equals.	How many ways can you make this number sentence correct?
<b>4</b> Subtraction		Subtract 1-digit and 2 digit numbers up to 30 practically.	Which calculation has the largest answer? [prove an appropriate range of calculations.] How could you change the number sentence with the smallest value to make it the most valuable?
		Subtract 1-digit numbers and 2-digit numbers using a number line.	Max has 12 balloons. 5 of them burst. How many has he got left? Max has 12 balloons. 5 of the balloons are red and the rest are blue. How many are blue? Max has 12 blue balloons and 5 red balloons. How many more blue balloons than red balloons does he have?
		Represent and use number bond subtractions to 20.	Recognise that bonds to ten are a useful way to work within 20 as well. 6 + 7 = 6 + 4 + 3, which could be easoer as we know 6 and 4 is a bond ot ten. Extend to bonds to 20.
5			
6	Recall from EY:	Estimates how many objects they can see and checks by counting them. Finds the total number of items in two groups by counting all of them.	
Multiplication	Teach for Year 1	Count in multiples of 2'sand 10's.	True or false: $2 + 2 + 2 + 2 + 2 = 10$ 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 10 + 10 $3 \times \_ = 6$ $\_ \times 2 = 20$ $\_ = 8 \times 2$

		Solve multiplication problems using repeated addition.	In a shop, grapes come in bunches of 10. Max wants to buy forty grapes. Are there enough grapes here? Are there enough grapes and the state of the
		Solve 1 step multiplication problems.	True or false: 2 + 2 + 2 = 2 x 2 and similar statements to <i>prove</i> true or false. Encourage children to persuade whether true or false.
	Recall from EY:	Shows awareness of similarities of shapes in the environment Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2-D shapes, and mathematical terms to describe shapes Selects a particular named shape.	
<b>7</b> Shape	Teach for Year 1	Recognise and name common 3D shapes (sphere, cuboid, cube, cone, cylinder, square based pyramid, triangular based pyramid).	The bottom of a 3D shape is covered. What could it be? Can you explain to me how you know? Use 3D shapes to build a tower. Which ones are best for the bottom of the tower? Which should only go at the top? Which shapes can only be used in one way?
		Identify properties of 3D shapes (number of edges, vertices, faces).	How many ways can you sort and group these shapes? <i>Present children with concrete shapes with similarities and differences in their properties.</i> How have these shapes been sorted? What could I call each group? <i>Present children with 3D shapes sorted into two groups by a specific property.</i> How else could they be sorted? Is there a way to sort them so there is only one shape in one of the groups, and all the rest are in the other group? What if we had three groups?
<b>8</b> Measurement	Recall from EY:	Orders two items by weight or capacity.	
	Teach for Year 1	Understand the language of weight (lighter/ heavier).	I am thinking of an object. It is lighter than a dictionary, but heavier than a pencil. What could I be thinking of? Allow children to check using balancing scales, but encourage them to move to abstract thinking when possible and make a prediction before testing it. Which object from the ones you've found is nearest in weight to the pencil? What about the dictionary?
		Describe and compare 2 items using language of weight.	Can you sort these objects into two groups of the same weight? Provide children with balancing scales and a range of everyday objects. They may not balance perfectly, but the discussion around this will deepen understanding of lighter and heavier.
		Begin to measure weight using non-standard measurements.	Theweighs the same ascubes.

			How many cubes does the teddy bear weigh? Frue or false: the apple and the peach weigh the same. True or false? The car is heavier than the van. The van is heavier than the car. The car is lighter than the car. The car is lighter than the car. The car is lighter than the car. The car and van weight the same amount.
	Recall from EY:	Uses everyday language related to time. Orders and sequences familiar events. Measures short periods of time in simple ways.	
<b>9</b> Time	r 1	Compare units of time in days, weeks, months of the year).	Sort given lengths of time from shortest to longest (e.g. 13days, 2 weeks, 1 week and 2 days).
	Teach for Year 1	Read a clock to half past the hour.	"It's 6 past 1." What's wrong with this?
	Τέ	Understand positional language (half, whole, quarter turn of a circle).	If I was facingand turned, which way would I be facing? Repeat with objects, including hands on a blank clock. Link to time if appropriate (e.g. one and a half turns = one and a half hours).

## Year One Spring Term

Week	Reasoning		Stretch
1	Recall from EY:	Compares two groups of objects, saying when they have the same numbers. Shows an interest in representing numbers. Count reliably with numbers from 1 to 20, place them in order. Says the number that is one more than a given number.	
Place Value	Year 1	To be able to explain the value of digits in a 2-digit number.	What happens to a number when we swap the digits over? How much more/much less valuable is it now?
	Teach for Year 1	Compare two-digit numbers using < > =	Pick three sets of base ten and arrange them accurately into the statement to make it accurate. -> -> _ -> -< _ -< -> _
2	Recall from EV:	<ul> <li>Finds one more or one less from a group of up to five objects, then ten objects.</li> <li>In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.</li> <li>Uses the language of 'more' and 'fewer' to compare two sets of objects.</li> <li>Finds the total number of items in two groups by counting all of them.</li> <li>In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.</li> </ul>	
Addition and Subtraction	Teach for Year 1	Solve 1 step addition and subtraction problems.	Explore the different ways you can add using a number line. E.g. adding 17 in a jump of ten then 7 ones, or 10, 5 and 2 Explore which methods are the most straightforward and put to the test.
		Compare the answers of addition and subtraction problems (using < > =).	_ + _ = _ + _ = > > _ + _ Using the digits 2, 3, 4and 5, compete the number sentences.
	Recall from EY:	Estimates how many objects they can see and checks by counting them. Finds the total number of items in two groups by counting all of them.	
<b>3</b> Multiplication	Teach for Year 1	Count in 2s, 5s and 10s to solve 1-step multiplication problems.	Compare counting a group of objects in 2s, 5s and 10s (group neds to be a multiple of 10). What number sentence represents each method? Why do we always reach the same answer?

<b>4</b> Division	Recall from EY:	Some children will solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups.	
	Teach for Year 1	Understand that division is sharing an amount into equal groups of the same amount.	I am thinking of a number between 20 and 30. I can only make equal groups of 5. What must my number be? What happens when I try to make groups of 2 with it? What about groups of 10?
		Separates a group of objects in different ways, beginning to recognise that the total is still the same.	Using 24 counters, how many groups can you make if each group needs at least 3 counters in it?
5	Recall from EY: Teach for Year 1	Counts out up to 6 objects form a larger group. Estimates how many objects they can see and checks by counting them. Finds the total number of items in two groups by counting all of them. Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same.	
Fractions	Teach for Year 1	To understand the concept of a half (objects, shapes and quantities).	I am thinking of a number less than 20. When I halve it, there are 9 in each group. What's my number? Repeat with other numbers.
	Recall from EY:	Shows awareness of similarities of shapes in the environment. Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2-D shapes, and mathematical terms to describe shapes. Selects a particular named shape. Selects a particular names shape.	
<b>6</b> Shape	Teach for Year 1	Identify 2D shapes in uncommon views.	Present children with shapes in uncommon views that have been wrongly labelled. Why <i>might</i> someone have made this mistake? What's the correct answer? How could you convince them your answer is correct? Cover part of a picture of a 2D shape. What could it be? What question would you ask me to find out for sure which shape it is? E.g. when presented with a partly hidden rectangle, children could ask if its sides are all the same length.
	Tea	Comparison of the properties of shapes Sort shapes by their properties	Group shapes by their properties for children to establish how they have been sorted. Give children shapes to group. How many different ways can they be grouped?

	Recall from EY:	Children use everyday language to talk about capacity to compare quantities/solve problems.	
	Teach for Year 1	Understand the language of capacity (full, empty, half full, more, less).	Which combination of containers has an equal capacity to? Which container has a capacity equal to half the capacity of container A?
		Describe and compare 2 items using language of capacity.	
<b>7</b> Measurement		Begin to measure capacity using non-standard measurements.	Deepen children's understanding of the language of capacity by encouraging accurate estimations for how many cups it will take to fill a given container. Encourage vocabulary of half to improve accuracy. It takes 5 to fill 1 It takes 2 to fill 1 The fill 1 How many to fill 1 Will fill one ?
	Recall from EY:	Uses everyday language related to time. Orders and sequences familiar events. Measures short periods of time in simple ways.	
8	Teach for Year 1	Compare units of time in days weeks, months of the year).	
Time		Read and compare (earlier/later) of o'clock and half past.	
		Understand positional language (half, whole, quarter and three quarter turns of a circle).	
9 - 10	Revisit and consolidation in response to specific identified needs for individuals, groups and whole class.		

### Year One Summer Cycle

Week		Reasoning	Stretch
1	Recall from EV:	Compares two groups of objects, saying when they have the same numbers. Shows an interest in representing numbers. Count reliably with numbers from 1 to 20, place them in order. Says the number that is one more than a given number.	
Place Value	r Year 1	Compare the answers of calculations (addition and subtraction).	Children make a set of balancing scales balance equally by placing number sentences of equal value in each side. Stretch to include 3 or more number sentences in each side.
	Teach for Year 1	Compare answers of calculations (multiplication).	$x_i s_more/less than x_ Children prove how much larger or smaller the value of the calculation is.$
2 Addition and	Recall from EY:	<ul> <li>Finds one more or one less from a group of up to five objects, then ten objects.</li> <li>In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.</li> <li>Uses the language of 'more' and 'fewer' to compare two sets of objects.</li> <li>Finds the total number of items in two groups by counting all of them.</li> <li>In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.</li> </ul>	
Subtraction	ʻear 1	Solve 1 step addition and subtraction problems (using money, length).	If I had, how much more would I need to have £? I hadcm of ribbon, but usedcm to wrap a present. How much did I have left? How many more presents could I wrap?
	Teach for Year 1	Compare the answers of addition and subtraction problems (using < > =) in context of money and measures.	cm +cm +cm >cm +cm How many different ways can you complete the number sentence using the numbers 4, 5, 6, 7, 8, and 9?
	Recall from EY:	Estimates how many objects they can see and checks by counting them. Finds the total number of items in two groups by counting all of them.	
3 Multiplication	ar 1	Solve 1 step multiplication problems using 2s, 5s and 10s.	If I count in 2s, then 5s and then 10s from zero to 50, which numbers will I never say? Which numbers will I always say? Which numbers will I say the least? What can you tell me about the numbers you say most and never?
	Teach for Year 1	Compare answers of calculations (multiplication).	2 x 2 x 2 _ 5 x 5 10 x 2 _ 5 x 10 etc. Fill in the gap using < = or >.

4	Recall from EY:	Finds the total number of items in two groups by counting all of them. Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same.	
Division	Teach for Year 1	Understand division is sharing an amount into groups.	Start with 24 counters. Work logically to find out how many different ways can I divide them into equal groups without leaving any out?
	Recall from EY:	Counts out up to 6 objects form a larger group. Estimates how many objects they can see and checks by counting them. Finds the total number of items in two groups by counting all of them. Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same.	
5 Fractions	Teach for Year 1	To understand the concept of a half and quarter (objects, shapes and quantities).	Sort the shapes into the table. Shapes that are split in half not split in half Can you add any more shapes to the table? There are four ways to split this rectangle in half. Can you find all four? Split a construction of the snape? Split a construction of the snape? It's hard to find half an odd number. Do you agree? Tell me why.
	Recall from EY:	Counts out up to 6 objects form a larger group. Estimates how many objects they can see and checks by counting them. Finds the total number of items in two groups by counting all of them. Selects a particular names shape.	
<b>6</b> Shape	Teach for Year 1	Comparison of the properties of shapes Sort shapes by their properties.	Squares Not Squares What's wrong here? Why? Use a selection of rectangles, triangles and circles. Put them into groups. Ask your partner to label your groups. Can you make t really tricky for them? How many different groups can you create?

		Identify 2D shapes in uncommon views.	Present children with a pair of perpendicular lines. <i>How many ways can you complete the shape using only straight lines? Which shapes is it possible to draw?</i> Present children with three sides of a quadrilateral in view, but the rest of the shape is hidden. Persuade me it could be a rectangle. Persuade me it could be a square.
	Recall from EY:	Uses everyday language to talk about size to compare objects and solve problems.	
<b>7</b> Measurement	ar 1	Understand the language of standard measurements (centimetres and metres).	Prove which is longer, _cm or _m. Can you find a group of 5 objects that are closest to 1m when placed end-to-end? Who, in your group, is closest to 1m tall? Which objects in this group would we measure in cm? Which would we measure in m? Why?
	each for Year 1	Measure length of an object to the nearest centimetre.	Which object is closest to 20cm in length? Which two objects are closest to 30cm in length when placed end-to-end?
	Teach	Compare objects using language of standard measurement (cm and m).	Present children with pairs of objects in irregular orientations. Prove which is longest.
	-		The red / yellow/ green / blue etc. pencil is _ cm long. Theis 12cm long.
<b>8</b> Time	rom	Uses everyday language related to time. Orders and sequences familiar events.	
	Recall from EY:	Measures short periods of time in simple ways.	
	Teach for Year 1	Read and compare (earlier/later) of o'clock and half past.	How much later isthan? Present times on clock faces and written in words. Which comes first,or? Three planes are flying to Paris. These are the times they arrive: $A \begin{pmatrix} \psi & \psi & \psi \\ \psi & \psi & \psi \\ \psi & \psi & \psi \\ \psi & \psi &$
	F	Read a clock to quarter past the hour.	At quarter past three, both hands point at the 3 on a clock. True or false?
		Record time using hours, minutes and seconds, including reading a digital stopwatch.	A stopwatch is more accurate than a clock for measuring the time it takes to run a race. Do you agree or disagree? Why? How could you test it? Estimate the time for each event, then test to check how accurate you were: Assembly, saying the alphabet, filling your water bottle, walking form FS2 to the hall
9 - 10		Revisit and consolidation in response to specific ident	ified needs for individuals, groups and whole class.

# Year Two Autumn Cycle

Week		Reasoning	Stretch
	Recall from year 1	Understand and be able to explain the value of the digits in 2-digit numbers. Count in multiples of 2s, 5s and 10s.	
<b>1</b> Place Value	Teach for Year 2	Count in steps of 2, 3 and 5 from 0 and in 10s from any number, forwards and backwards. A/R Pick two digit cards. What number would we say if we counted on jumps of 2, 5 or 10? P/A Pick two digit cards. How many jumps would it take to cross 100 from your number if I counted in 2, 5 or 10? E/D Pick two digit cards. You need to get to zero by jumping backwards in 2, 5 or 10. Counting in which number will get you closest to zero?	If I count in 2s, 3s and 5s to 50, which numbers will I say the most? The least? What do you notice about the numbers that I will never say?
		<ul> <li>Recognise the place value of each digit in 2-digit numbers (10s and 1s).</li> <li>A/R: Use a part-part-whole model to partition given numbers using base 10 resources.</li> <li>P/A: Pick two digit cards to make a random number between 10 and 100. Use base 10 to represent the number in two different ways.</li> <li>E/D: How many numbers can you make with more tens than ones? How about more ones than tens?</li> </ul>	Matching activities whereby children match numbers written in digits to descriptions of numbers based on their place value. Stretch children by designing some descriptions to have more than one possible answer from the selection. <i>Is there more than one way of matching the cards?</i> Could also present as loop cards / dominoes.
	Recall from year 1	Start to compare 2-digit numbers using < = >	
2 Place Value	Teach for Year 2	Identify, represent and estimate numbers using different representations, including the number line. A/R: Represent two-digit numbers using base ten, part-part-whole model, bar model and on a number line. P/A: E/D: Present children with partially completed representations of two- digit numbers. What could the number be? How many different solutions can you find that are reasonable and accurate?	Give children a description of a number that could have more than one answer. Using the sentence starters, children describe what that number could be. E.g. The tens digit is double the ones digit. The number is less than 50. The number is even. The number must be The number could be The number could be
	Τŧ	Compare and order numbers from 0 up to 100; use < > and = signs.	From this set of numbers, which pair is closest in value? Which pair have the greatest difference? Children prove by plotting on a number line. Can you create a number that would fit between each pair of numbers?

	Recall from year 1	Add a 1-digit number to a 2-digit number using concrete resources and on a number line.	
3 Addition	ır 2	Recall and use addition facts to 20 fluently and derive and use related facts up to 100.	
	Teach for Year	Add a 2-digit and a 1-digit number.	Which 2 pairs of numbers could you add together to make the same answer?
	Teach	Add a 2-digit number and a multiple of 10.	When adding a tens number, only the tens digit changes. From these examples, which calculations prove it true and which prove it false? Children sort the calculations accurately and recognise that when we cross the hundreds, then not just the tens digit changes.
	Recall from year 1	Subtract a 1-digit number from a 2-digit number using concrete resources and on a number line.	
4 Subtraction	ır 2	Recall and use subtraction facts to 20 fluently and derive and use related facts up to 100.	If I know $20 - 17$ , $70 - 17$ is a lot easier. Why is this true? Model partitioning 70 into 50 and 20. Apply to other examples.
	Teach for Year 2	Subtract a 1-digit number from a 2-digit number.	55 = 65 What do you notice about the two numbers you use to make this number sentence correct?
	Teac	Subtract a multiple of 10 from 2-digit number.	When subtracting a tens number, I only need to move up or down on the hundred square, and never side to side. Do you agree? Why? Does it work for every calculation?
	Recall from year 1	Count in 2s, 5s and 10s. Solve multiplication problems using repeated addition.	
		Recall and use multiplication facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.	When I multiply a number by 2, the answer is always even. When I multiply a number by 5, the answer is always even. When I multiply a number by 10, the answer is always even. Which statements are true and which are false? Convince me you're correct.
5 Multiplication		Solve multiplication problems using concrete materials.	
multiplication	Teach for Year 2	Solve multiplication problems using repeated addition.	If 5 × 3 = 15, which number sentences would find the answer to 6 × 3?         • 5 × 3 + 6         • 5 × 3 + 3         • 15 + 3         • 15 + 6         • 3 × 6         Explain how you know.

	Recall from year 1	Understand that division is sharing an amount into equal groups of the same amount.	
6 Division	Teach for Year 2	Recall and use division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.	I can divide any number by 2. Why isn't this true? Show me using counters and other examples.
7	Recall from year 1	Understand the concept of a half (objects, shape and quantities).	
Fractions	Teach for Year 2	Recognise, find, name and write fractions $\frac{1}{3}$ , $\frac{1}{4}$ $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.	$\frac{1}{4}$ is bigger than $\frac{1}{3}$ Experiment with 24 counters to find out if this is true or false. Can you predict which is bigger from $\frac{2}{4}$ and $\frac{12}{3}$ Find out if you're correct.
	Recall from year 1	Understand and use the language of capacity, length and mass. Full, empty, half-full, more, less, lighter, heavier, longer, shorter and taller.	Theis taller than the, but shorter than the Which objects could you use to make this statement true? Repeat with mass and capacity.
Measure	Feach for Year 2	Compare and order lengths, mass, volume/capacity and record the results using <, = and >.	Chn create sentences using < = and > to compare combinations of objects in terms of their length, mass and capacity.
<b>8</b> Shape	Recall from year 1	Comparison of the properties of shapes Sort shapes by their properties. Identify 2D shapes in uncommon views. Recognise and name common 3D shapes (sphere, cuboid, cube, cone, cylinder, square based pyramid, triangular based pyramid). Identify properties of 3D shapes (number of edges, vertices, faces). Identify properties of 2D shapes (number of sides, vertices).	
	Teach for Year 2	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.	Focus on symmetry as a tool to reinforce the properties of 2D shapes.

			The dashed line represents a line of symmetry on the shape. What must be being covered by the blue squares?	
		Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.	Using examples, decide whether the statement is always, sometimes or never true. The number of edges is the same as the number of faces. The number of vertices is equal to the number of edges. There are more edges than faces. There are more vertices than edges.	
9 - 10	Revisit and consolidation in response to specific identified needs for individuals, groups and whole class.			

## Year Two Winter Cycle

Week		Reasoning	Stretch
	Recall from Year 1	Explain the value of digits in a 2-digit number.	
<b>1</b> Place Value	. 2	Identify, represent and estimate numbers using different representations, including on a number line.	Estimating number activities- read descriptions of numbers. How many different possibilities can you find that match the description (e.g. <i>This three digit number has a digit sum of 11. The hundreds digit is twice the ones digit</i> ).
Flace Value	Teach for Year	Read and write numbers to at least 100 in numerals and in words.	Error spotting in numbers written in words. Match written number with those written in partitioned numerals (e.g. three-hundred and twenty-two = 100+100+100+10+10+1+1).
2	Recall from Year 1	To compare the value of notes and coins.	
Money and Place Value	Teach for Year 2	Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a given amount.	Match amounts of money of equal value (e.g. $\pm 1.20 + 35p + \pm 0.20 = \pm 0.50 + \pm 1.10 + 5p$ ). Could stretch to gap fill, potentially with a gap on both sides of the = sign to find more than one possibility and open-ended.
		Find different combinations of coins that equal the same amounts of money.	Give chn a target amount. Using specific coins, how many different ways can you find to make the target? Consider carefully the coins made available and the targets. <i>My Grandpa gives me 50p a week. How long until I have enough to buy</i> ?
	Recall from Year 1	Add 1-digit and 2-digit numbers to 30 practically and on a number line.	
3 Addition	Year 2	Add 2 2-digit numbers.	+ = 37. How many different ways can you make this number sentence correct? What do you notice about the numbers you've used? Stretch to include knowledge of odd-even rules.
	Teach for Year 2	Add 3 1-digit numbers.	_+_+_ = 18. How many different ways can you make this number sentence correct using only 1-digit numbers?

	Recall from Year 1	Subtract 1-digit and number line.	l 2 digit numbers up to 30 practically and on a	= 19 = 9. Create different number sentences that are accurate. Link to odd – even rules. <i>Even – even = odd.</i> Prove this is true or false.
4 Subtraction	Year 2	Subtract 2 2-digit r	numbers.	
	Teach for Year 2	Subtract 3 1-digit r	numbers.	How could these numbers be arranged to make the largest answer? How about the smallest answer?
5				
6	Recall from Year 1	Solve 1-step multiplication problems using repeated addition.		
Multiplication	Teach for Year 2	resources and arra (Show that multipli	olving multiplication and division using concrete ys. cation of 2 numbers can be done in any order I division of 1 number by another cannot)	Present children with arrays, parts of which are hidden. <i>The answer is less than 24. What could the array be?</i>
7	Recall from Year 1	the same amount. Separates a group o	vision is sharing an amount into equal groups of f three or four objects in different ways, beginning ie total is still the same.	
Division	Teach for Year 2	(Show that multipli	olving division, using materials and arrays. cation of 2 numbers can be done in any order I division of 1 number by another cannot)	Two friends are sharing grapes equally. They each receive less than 40 grapes. Complete the sentences to describe how many grapes they must have started with: They must have started with They could have started with They can't have started with
	ır 1	Arithmetic	Reasoning	
8 Fractions	Recall from Year 1	Addition and Subtraction	To understand the concept of a half (objects, shapes and quantities).	

	Teach for Year 2	<ul> <li>+_=? /</li> <li>+_=?</li> <li>?+_=?</li> <li>?+_=?</li> <li>+0?</li> <li>100-??=_</li> <li></li> </ul>	Write simple fractions, for example 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2.	I have shaded a third of my shape. Why might someone think that's right? What's the accurate answer? Using red and blue counters, build a tower to convince the class $\frac{1}{2}$ is the same as $\frac{2}{4}$
	Recall from Year 1	Multiplication and division	Understand and use the language of capacity, length and mass. Full, empty, half-full, more, less, lighter, heavier, longer, shorter and taller.	
9 Measure	Teach for Year 2	<ul> <li>x 2, 5 or 10</li> <li>÷ 2, 4, 5 or 10</li> </ul>	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g).	Start at different points in the hall (could use coloured markers). Estimate, then measure the distance to other markers/feature of the hall. Could use the MUGA, or features in the landscape?

## Year Two Spring Cycle

Week		Reasoning	Stretch														
	Recall from Year 1:	Compare the answers of calculations To be able to explain the value of digits in a 2-digit number. Compare 2- digit numbers															
<b>1</b> Place Value	Feach for Year 2	Use place value and number facts to solve comparison and ordering problems.	Children order a set of given number cards accurately on a number line, then find the number that would fit exactly halfway between each pair of numbers. Children create the scores to match given descriptions (e.g. A scores more than B, but B scored more than C. D scored more than A dn B altogether, and E came first with the highest score).														
	Teach fo	Calculation and money: Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	How much did the pencils cost if I gotchange and paid with a £2 coin?														
	Recall from Year 1:	Read, write and interpret mathematical statements involving addition and equals. Add 1-digit and 2-digit numbers to 30 practically and on a number line. Solve 1 step addition and subtraction problems (using money, length). Compare the answers of addition and subtraction problems (using < > =) in context of money and measures.															
2 Addition	Teach for Year 2	Solve problems with addition using concrete objects and pictorial representations, including those involving numbers, quantities and measures.	Find combinations of objects that have a total length to match a given target/greater than 100cm, less than etc. Which three objects would have a total length between 15 and 20cm? How many different solutions are there?														
		ch for Yea	ch for Yea	ch for Yea	ch for Yea	ch for Yea	ich for Yea	ich for Yea	ich for Yea	ch for Yea	ach for Yea	ach for Yea	ich for Yea	ch for Yea	ch for Yea	Solve problems with addition applying increasing knowledge of mental and written methods.	Sort given problems into mental strategies and written strategies as the most efficient method to reach an answer.
		Show that addition of 2 numbers can be done in any order (commutative) and subtraction of one number from another cannot.	Test hypotheses, such as sorting statements into always, sometime and never true. E.g. <i>I</i> can add pairs of numbers in answer order and get the same answer. I can't swap the position of numbers in a subtraction calculation and get the same answer.														
<b>3</b> Subtraction	Recall from Year 1:	Read, write and interpret mathematical statements involving subtraction and equals. Compare the answers of addition and subtraction problems (using < > =).															

	Subtract 1-digit and 2 digit numbers up to 30 practically and on a number line. Represent and use number bond subtractions to 20. Solve 1 step addition and subtraction problems (using money,		
		length). Solve problems using concrete objects and pictorial representations, including those involving numbers, quantities and measures.	Match pictorial and concrete representations to written number sentences. Create the number sentences for those that are missing/concrete resources to represent given number sentences. Stretch to multi-part (e.g. $39 - 27 - 3 = $ ).
	Teach for Year 2	Solve problems applying increasing knowledge of mental and written methods.	Choose four numbers from this list: 1, 2, 3, 4, 5, 6, 7, 8, 9 to put in the squares so that the difference between joined squares is odd. Only one number is allowed in each square. You must use four different numbers. What can you say about the sum of each pair of joined squares?
	Recall from Year 1:	Solve 1 step addition and subtraction problems (using money, length). Compare the answers of addition and subtraction problems (using < > =) in context of money and measures.	
<b>4</b> Addition and Subtraction	Teach for Year 2	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	<pre>_+ _= 37. What is the largest number you could put in the first gap? What about the smallest? Can you use two even numbers to make this statement true? Can both numbers be odd? Is this true for every addition answer? Number pyramids with more than one solution.  + = _ Can you arrange the digits 1, 2, 3, 4, 5 and 6 to make an accurate calculation?</pre>
	Recall from Year 1:	Solve 1 step multiplication problems using 2s, 5s and 10s. Compare answers of calculations (multiplication).	
5 Multiplication	Teach for Year 2	Solve problems involving multiplication using mental methods and multiplication facts.	On Friday at 9am, a magic plant was only 2cm tall. Every 24 hours, it doubled in height. How tall was it 7 days later?
		Solve multiplication problems in context.	Balancing scales so calculations are of equal value.

<b>6</b> Division	Recall from Year 1:	Understand divis	ion is sharing an amount into groups.	
	Teach for Year 2	Solve problems involving division using mental methods and division facts.		
		Solve division problems in context.		Jack wants to buy a bike that costs £107. He saves £10 each week. How many weeks will it take him? Write a number in each gap to make an accurate statement: x2=÷2= Double= half ofHow many solutions can you find to this problem?
	Recall from Year 1	Arithmetic	Reasoning	
<b>7</b> Shape		Addition Solve one step addition problems using concrete resources and on a number line.	Comparison of the properties of shapes Sort shapes by their properties. Identify 2D shapes in uncommon views. Recognise and name common 3D shapes (sphere, cuboid, cube, cone, cylinder, square based pyramid, triangular based pyramid). Identify properties of 3D shapes (number of edges, vertices, faces). Identify properties of 2D shapes (number of sides, vertices).	
	Teach for Year 2	<ul> <li>+ = ? / + = ?</li> <li>? + = ?</li> <li>? + =</li> <li> + _ 0 = ?</li> <li>? /_0 +0 = ?</li> <li>? /_0 +0 = _0</li> <li> + + _ = ?</li> <li>? Recording addition and subtraction in columns supports place value and prepares for formal written methods with larger numbers.</li> </ul>	Identify 2D shapes as the faces of 3D shapes. Compare and sort common 2D and 3D shapes and everyday objects based on their properties (vertices, edges, faces, sides, curved, flat), including using sorting diagrams.	Possible or impossible? Children test whether a 3D shape can be constructed using the 2D shapes given. What would the shape be called? Children identify the common characteristics in groups of shapes. How many ways can these shapes be sorted into two groups? What do they have in common? What if there were three groups? How many different ways can they be sorted? Present shapes sorted into two groups. One of them is wrongly placed. Which is it and why?

<b>8</b> Measure	Recall from Year 1:	Subtraction Solve one step subtraction problems using concrete resources and on a number line.	Understand the language of length (longer, shorter), weight (Lighter, heavier), and capacity (full, empty, half-full, more, less). Understand the language of standard units of measurement (cm and m). Measure the length of an object to the nearest cm.	
	Teach for Year 2	100 - ?? = = ?? Recording addition and subtraction in	Understand and use temperature measurements in °C to measure, estimate and compare temperature.	Molly measured the temperature at 12noon and again at 7pm. The difference was 7 degrees. What could the temperatures have been? What are they likely to have been if she measured them in December? What about July?
		columns supports place value and prepares for formal written methods with	Understand and use measurements in litres and ml to measure, estimate and compare capacity, both in concrete resources and pictorial representations on a scale.	Estimate then accurately measure the amount of water in given containers. Compare the difference between your estimate and the actual capacity. Closest wins a point: first to 5 points wins. Aholds 5ml of water, so how manyof water are there in these containers (present children with pictures of containers holding liquid with a scale in different increments- needs to be a multiple of 5 in the container).
	Recall from Year 1:	larger numbers.	Understand positional language (half, whole, quarter and three quarter turns of a circle).	
Position			Order and arrange combinations of mathematical objects in patterns and sequences.	Present children with a pattern/sequence of shapes with larger areas covered. What must the pattern be? How could you test to see if you're right?
Position	Teach for Year 2		Use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).	Here is a piece of Numicon after it has been rotated. What could its starting position have been? Describe the rotation that must have happened to get it to this position using right angles for quarter, half and three-quarter turns, clockwise and anti-clockwise to make sure you're accurate.
<b>9</b> Time	Recall from Year 1:	Multiplication Count in 2s, 5s and 10s to solve 1-step multiplication problems.	Read a clock to o'clock, half-past and quarter past the hour. Read and compare (earlier/later) of o'clock and half past.	
	Teach for Year 2	<ul> <li>Recall multiplication</li> </ul>	Tell and write the time to quarter past and quarter to the hour (written in words and drawn on a clock).	Present problems involving start and finish time. E.g. I started writing a story at and it took me an hour and a half. I finished at 1.15pm. Which time must I have started to write?

	<ul> <li>facts for the 2,</li> <li>5 and 10</li> <li>multiplication</li> <li>tables.</li> <li>Relate</li> <li>multiplication</li> <li>by 10 to place</li> <li>value.</li> <li>x _ =</li> <li>? ?</li> </ul>	Tell and write the time to 5 minutes (written in words and drawn on a clock). Compare times (earlier and later) and start to calculate the duration between two given times (multiples of 5 minutes <1 hour).	When it is twenty past four, both the hands of the clock point directly to the four. Do you agree or disagree? Why? It is 11.25am. In half an hour it will be ten to twelve. Do you agree? Start and end time problems. How long did it take to? Give the duration and either the start or end time. Children work out the other.
10 Data Teach for Year 1. Recall from Year 1.	<ul> <li>Division</li> <li>Understand that</li> <li>division is sharing</li> <li>an amount into</li> <li>equal groups of</li> <li>the same</li> <li>amount.</li> <li>Halve</li> <li>numbers.</li> <li>_ 0 ÷ _ = 10</li> </ul>	Ask and answer questions by counting the number of objects in each category and sorting into categories.	A fashion designer needs to sort their clothes ready to be sent to the shops to be sold. Here's how they did it Present a range of combinations of parcels Which shop is going to sell the most clothes? The least? What's the difference? Here is a pictogram. Here is a pictogram. The most popular colour sweet is green. Do you agree with Eva? Explain why and correct any mistakes.

Ask and answer questions about totalling and	Teddy and Eva both draw a pictogram to
comparing categorical data.	show how many cars they counted
	driving past their school.
	Colour         Number on cars           Blue            Red            Silver            Black            Green            = 10 cars
	What is the same? What is different?
	Whose pictogram do you prefer? Why?
	Those precedent to you preter they the
	Ice creams sold in a week
	= 2 ice creams
	Convince me: There are more ice-creams sold at the weekend than during the rest of the
	week.
	True of false? Why?: Three ice creams were sold on Tuesday.
	Justify: If the staff needed to have one day off in the week, which would be best and
	why?

# Year Two Summer Cycle

Week		Reasoning	Stretch
<b>1</b> Place Value	Recall from Year 1	Compare the answers of calculations. To be able to explain the value of digits in a 2-digit number. Compare 2- digit numbers.	
	Teach for Year 2	Compare numbers using < = and >.	Chn are given cards with different descriptions of numbers or numbers written in numerals or words. They need to find the pair with the smallest difference, the pair with the greatest difference, any equal pairs and the card closest to given targets. Design the cards and target numbers carefully so as to challenge children when finding the number closest to a given target- sometimes it may be less than the target (e.g. 98 is closer to 100 than 103).
		Plot, with increasing accuracy, numbers on a blank number line (varying increments of scale).	<ul> <li>Prove children a range of numbers of increasing complexity to plot on a number line.</li> <li>Present the number line as a spiral.</li> <li>Game- Children take turn to plot a number from a shared list on a number line. The first person to get three in a row wins a point. First to 5 points wins. Encourage strategic play through modelling. Share best ways of winning and tactics. Play again, predetermining who will win and who win lose. This is one way to reinforce the place value of the numbers children are using.</li> <li>Stretch opportunity- instead of number cards, give children calculation cards to play with (e.g. 2, 5 and 10 x table, addition and subtraction cards that could be answered mentally).</li> </ul>
2	Recall from Year 1	Solve 1 step addition and subtraction problems (using money, length). Compare the answers of addition and subtraction problems (using < > =) in context of money and measures. Subtract and add 1-digit and 2 digit numbers up to 30 practically and on a number line.	
2 Addition and Subtraction	Teach for Year 2	Recognise and use the inverse relationship between addition and subtraction to solve contextualised problems.	Sort number sentences into 'families'. Chn describe what the family has in common (e.g. inverse, number of tens).
		Use addition and subtraction to solve missing number problems.	36= 17 + How many different ways can you solve this using the digits 1, 2, 3, 4, 5, and 6. Test and prove your examples work. What are the possible answers? What could the answer never be? Why?
<b>3</b> Multiplication and Division	Recall from Year 1	Solve 1 step multiplication problems using 2s, 5s and 10s. Compare answers of calculations (multiplication). Understand division is sharing an amount into groups.	

	Teach for Year 2	Recognise and use the inverse relationship between multiplication and division to solve contextualised problems.	6 x 5 = 30       ÷       =         ÷       =         Based on the structure above, present children with a range of number cards. How many different ways can you complete the same number sentence structure using the numbers I've given you.         40, 5, 8, 30, 6, 30, 3, 10, 4, 20, 2, 10
		Use multiplication and division to solve missing number problems.	$x_{-} = - \div$ How many different ways can you solve the number sentences? Prove your examples work.
	Recall from Year 1	Read a clock to o'clock, half-past and quarter past the hour. Record time using hours minutes and seconds, including reading a digital stopwatch.	
<b>4</b> Time	Teach for Year 2	Tell and write the time to quarter past and quarter to the hour (written in words and drawn on a clock).	Matching written times and times represented on the clock. Written times should be presented in different, usual ways. E.g. ten-to-three could be written as one hour and fifty minutes after 1 o'clock.
		Tell and write the time to 5 minutes (written in words and drawn on a clock).	
		Compare times (earlier and later) and start to calculate the duration between two given times (multiples of 5 minutes <1 hour).	Give children a start time or end time, and a duration. What would the start/end time be?