Maths Curriculum Handbook

Curriculum Intent:	Strategic Overview of Maths:
At St. Mary's, we aim to instil in pupils a love of number and pattern which will lead to the development of strong arithmetic, reasoning and problem solving skills which will fit them well for the future. Maths is about exploring, mastering skills in counting and developing an understanding of number. Maths develops a curiosity in the world around us, offers solutions to problems and helps to develop greater independence as our learners grow. 	Our Curriculum follows the National Curriculum and is augmented by **White Rose** and **Number Sense resources**. This is to give pupils further opportunities for implementing knowledge and skills into long term memory. To give a greater consideration towards teacher workload, and with our desire to improve, we use these resources. Despite our improving Maths outcomes, we are conscious of the workload of staff and will move fully to the White Rose curriculum in September 2024. White Rose Maths Number Sense Maths

"Teach us to number our days, that we may gain a heart of wisdom." Psalm 90:12

Curriculum Implementation:

At. St. Mary's, our Mathematics curriculum embodies our belief that all pupils can be mathematicians. We aim to develop mathematicians who understand how to excel in maths with an integral aim to endeavour all children to develop automaticity.

At our school, we take a research-backed and expertly planned approach to mathematics implementation, prioritising the development of arithmetic skills and essential facts. Our curriculum features a dedicated weekly 4-operation lesson – Fluency Friday, ensuring that children continuously reinforce their understanding of the foundational principles of mathematics throughout the year. This sustained focus allows our pupils to know more and remember more, laying a solid groundwork for future mathematical success.

In addition to regular lessons, our mathematical routines are designed to optimise learning and retention. These include engaging activities such as morning math work, daily 4-operation reviews (R+Rs), and prior knowledge questions (PK) to gauge children's current understanding and adapt teaching accordingly. 'Flashbacks' sessions provide opportunities for pupils to revisit previous learning and receive additional support as needed, ensuring that no child is left behind.

Our teaching approach follows the Concrete, Pictorial, Abstract (CPA) method, providing multiple representations simultaneously to develop a strong mathematical understanding. This approach is detailed in our school Calculation Policy.

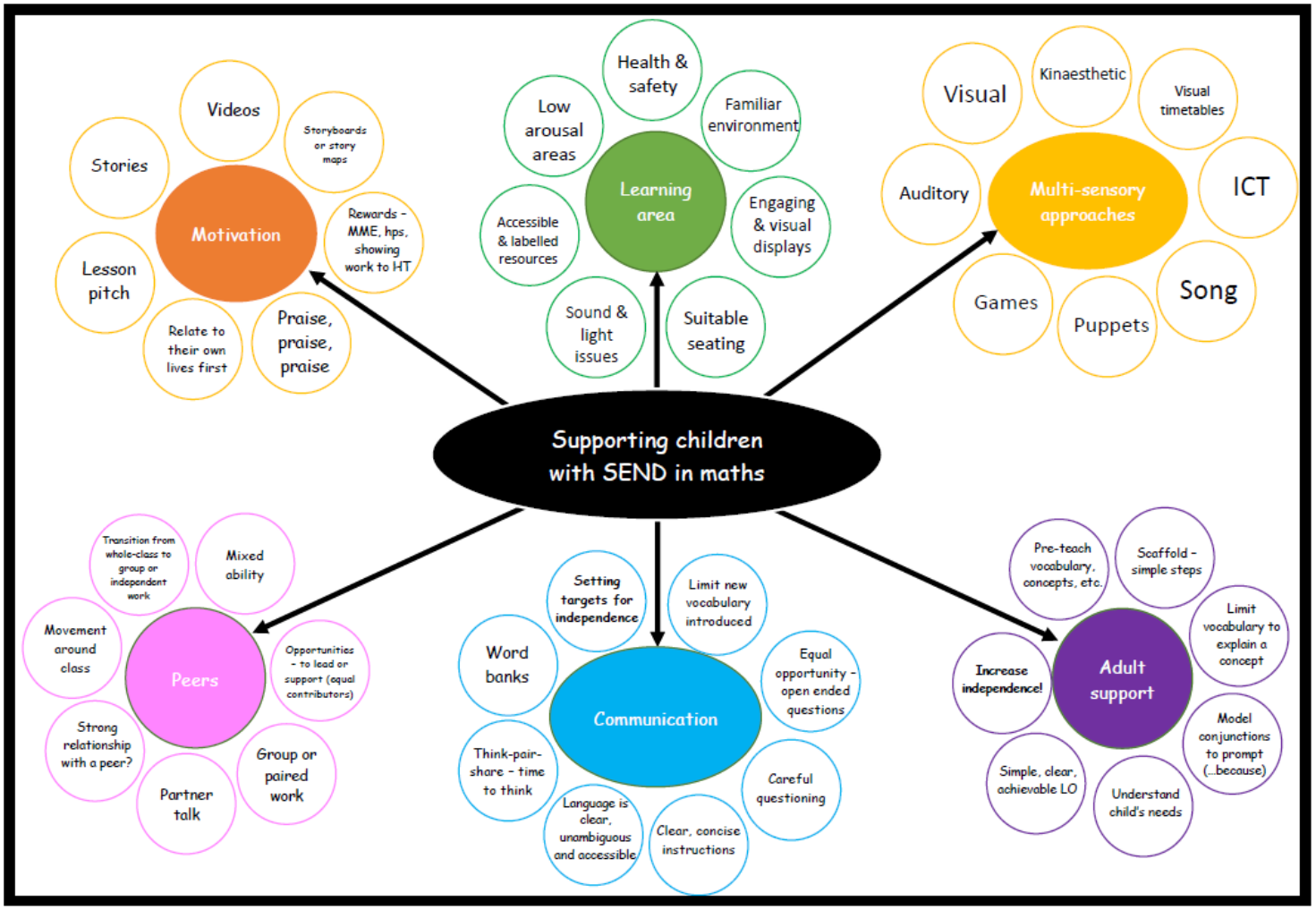
Key Features:

- Prioritises the development of arithmetic skills and essential facts.
- Dedicated 4-opertions weekly lessons – Fluency Friday.
- Rosenshine Principles: Know more, remember more – Retrieve & Review.
- CPA Approach – aiming to provide variation and cohesion to develop concrete understanding.
- Assessment: Low stake testing, end of unit quizzes and termly standardised testing.

Once our children have mastered facts and procedures, we challenge them with problem-solving tasks to deepen their mathematical thinking and apply their skills in real-world contexts. By providing a well-rounded and engaging mathematics education, we prepare our children to excel both academically and beyond.

In mathematics, we use a number of evidence-based strategies to support children with SEN.
Strategies include:

- Support for SEN children with learning vocabulary; this may include flash cards.
- Utilising visual aids and manipulatives.
- Games/songs to support vocabulary learning.
- Pupils will be given specific opportunities by adults to practise specific skills that are barriers to learning.
- Tasks may be 'chunked' into smaller steps.
- Vocabulary prompts may be used to support sentence work.
- Depending on ability, children with SEN may be asked to evaluate their own progress and discuss what they can do to move their learning forward.
- Small groups may be used to support learning a particular concept.
- Pre-teaching and support with new vocabulary may be used.
- Engaging with math games and role play.
- Educational videos.
- Stories.



Lesson Structure and Overview:

EYFS:
Nursery: Following our own Number Sense Map. Daily focus inputs. Recording: Electronically using Evidence Me.
Reception: Following the Number Sense programme. For Geometry and measurements, we follow White Rose Maths. Recording: Mostly in books, incidental evidence recorded on Evidence Me.
Assessment record lists used daily.

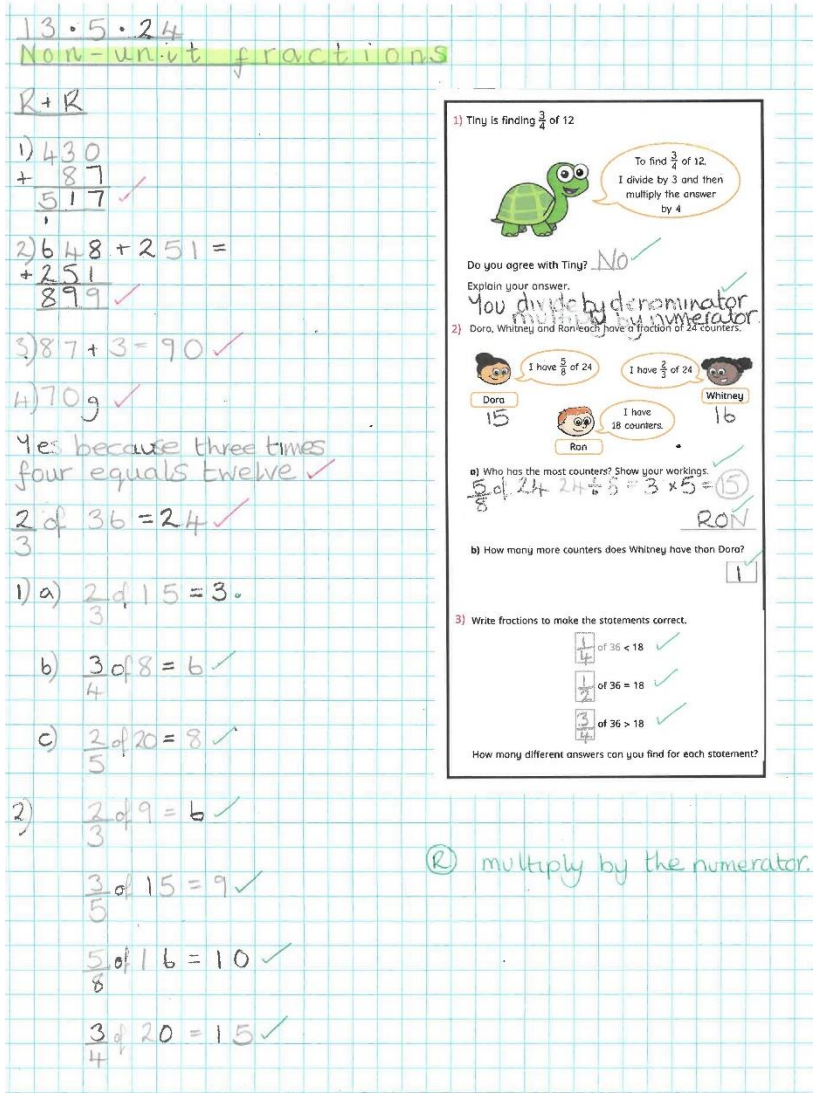
Display:
Modelling always on SQUARE flipchart paper. Key unit vocab.
Range of representations, models and toolkits. Can be a working wall and keep it useful and visual.

Pupil Presentation:
One Number PER Square.
Lines using a ruler.
Sheets stuck in neatly to the RIGHT where possible.
Self/Peer Marking in Red.
Corrections/Edits in Red.

Lesson Structure: Mon-Thurs
- R+R (WR Flashbacks & Teacher Crafted)
- Class Guided, Episodic teaching, modelling and recording to build fluency.
- Independent activity.
- Assessment throughout.
- Go Deeper—assessment reasoning & PS.

Notes:
Short date.
Title directly under. Highlighted in Green when achieved. In Orange when partially/not/with support.
Where Orange is used, a comment, intervention or verbal feedback must be given.
If a majority of the class is Orange, do not move on with unit until consolidated.
"Orange = on your way!"
Green S in circle to indicate where support has been given on specific questions.
R+R (Retrieve & Review) to be used every lesson. Focussing on gaps, previous units, previous lessons and areas of development.

Model Page:



Y1 – 6 Long term Plan

	Autumn															Spring												Summer											
Wk	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Y1	Place value				Number bonds			Recap	Bonds to 20		Problem solving		Assessment/ Consolidation		Investigations	4OPs revision		Fractions (x2)		Measurement (x2)		Geometry (x2)		Money (x2)		Assessment/ consolidation		4OPs revision (x2)		Measurement	Time (x2)		Fractions	4OPs	Geometry	Time	Assessment/ Consolidation		Investigations
Y2	Place value/ number bonds				Add/subtrac	Multi/divisio	Addition	Division	Subtraction	Add/subtrac	4OPs	Problem solving	Assessment/ Consolidation		Investigations	4OPs	Fractions (x2)		Measurement (x2)		Geometry (x2)	Statistics	Money	Time	Assessment/ consolidation		4OPs	Revision				Investigation	Time (x2)			Assessment/ Consolidation		Investigations
Y3	Place value	Number facts			Add/subtrac	Mult/division	Add/subtrac	Mult/division	Add/subtrac	Multiplicatio	Addition	Subtraction	Assessment/ Consolidation		Investigations	4OPs revision (x2)	Multiplicatio		Fractions (x2)		Money (x2)		Geometry (x2)	Statistics	Assessment/ Consolidation		4OPs	Time (x2)		Measurement (x2)	Fractions	Time	Place value/ 4OPs	Money	Assessment/ Consolidation		Investigations	
Y4	Place value		Add/subtrac		Mult/division	Add/subtrac	Mult/division	Fractions	Mult/division	4Ops problems	Fractions (x2)		Assessment/ Consolidation		Investigations	4OPs	Fractions	Measurement	Geometry (x2)		Time (x2)	Multiplicatio	Money (x2)		Assessment/ Consolidation		4OPs	Multiplicatio n (x2)		Measurement (x2)	Position, direction	Statistics	Money		Assessment/ Consolidation		Investigations	
Y5	Place value		Add/subtrac		Mult/division	Fractions	Mult/division	4OPs	Fractions	Fract,dec,% (x2)		4OPs	Assessment/ Consolidation		Investigations	4OPs	Statistics	Geometry (x2)		Time (x2)		Area, peri,vol (x2)		Measurement (x2)		Assessment/ Consolidation		4OPs	Fract,dec,%	Missing numbers	Geometry (x2)	Time (x2)			Position,direction	Statistics	Assessment/ Consolidation		Investigations
Y6	Place value	Add/subtrac	Mult/division		4Ops	Fractions	4Ops problems	Fract,dec,%		4OPs	Fract,dec,%	4Ops problems	Assessment/ consolidation		Investigations	4Ops revision	Area, perimeter, volume	Statistics	Algebra	Conversion/time	Shape	Revision							Investigations/KS3 preparation										

Maths: Medium & Long Term Plan: Year 1

Autumn Term														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Place value				Number bonds			Recap	Bonds to 20		Problem solving		Assessment/ Consolidation		Investigations

Spring Term											
1	2	3	4	5	6	7	8	9	10	11	12
4OPs revision		Fractions		Measurement		Geometry		Money		Assessment/ consolidation	

Summer Term											
1	2	3	4	5	6	7	8	9	10	11	12
4OPs revision		Measurement		Time		Fractions	4OPs revision		Geometry	Time	Assessment/ Consolidation	Investigations

	Year 1 Maths Autumn Medium Term Plan		
	Week	**Unit**	**Outcomes**
Autumn	1	Place value	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
	2		Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
	3		Given a number, identify one more and one less
	4		Identify and represent numbers using **objects and pictorial representations** including the number line, and use the language of: equal to, more than, less than (fewer), most, least. AND: Read and write numbers from 1 to 20 in numerals and words.
	5	Number bonds	Learn number bonds for each number up to 10 using the number bond songs
			Construct, draw and write number bonds to 10 (starting with learning the bonds through song)
	6		Add and subtract one-digit and two-digit numbers to 20, including zero
	7		Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
	8	Recap (after half term)	Recap number bonds, missing number calculations, problem solving with number bonds
	9	Bonds to 20	Use these number bonds to apply to number bonds to 20. E.g. If I know 6 + 1 = 17, then I know 16 + 1 = 17 and 6 + 11 = 17.
	10		Use lots of resources to support. Move onto problem solving and missing numbers
	11	Problem solving	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.
	12		Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.
	13	Assessment & consolidation	Use autumn assessment to identify gaps in the children's learning and revisit topics
	14		
	15	Investigations	Investigations involving 4 operations

	Year 1 Maths Spring Medium Term Plan		
	Week	**Unit**	**Outcomes**
Spring	1	4OPs revision	Learn number bonds for each number up to 10 using the number bond songs
			Construct, draw and write number bonds to 10 (starting with learning the bonds through song)
	2		Add and subtract one-digit and two-digit numbers to 20, including zero
			Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
	3		Recap number bonds, missing number calculations, problem solving with number bonds
			Use these number bonds to apply to number bonds to 20. E.g. If I know 6 + 1 = 17, then I know 16 + 1 = 17 and 6 + 11 = 17.
			Use lots of resources to support. Move onto problem solving and missing numbers
	4	Fractions	Recognise, find and name a half as one of two equal parts of an object, shape or quantity
	5		Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.
	6	Measurement	Measure and begin to record the following: lengths and heights
			Measure and begin to record the following: mass/weight
	7		Measure and begin to record the following: capacity and volume
			Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
			Compare, describe and solve practical problems for: mass/weight [for example, heavy/light, heavier than, lighter than]
	8	4OPs revision	Revise number bonds, arrays, missing number problems, drawing pictures (e.g. bar model)
	9	Geometry	Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles]
			Recognise and name common 2-D and 3-D shapes, including: 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].
			Describe position, direction and movement, including whole, half, quarter and three-quarter turns.
	10	Money	Recognise and know the value of different denominations of coins and notes
			Add and count basic amounts of money
	11	Assessment/ consolidation	Use spring assessment to identify gaps in the children's learning and revisit topics
	12		

	Year 1 Maths Summer Medium Term Plan		
	Week	**Unit**	**Outcomes**
Summer	1	4OPs revision (Activities and games involving the following to consolidate)	Learn number bonds for each number up to 10 using the number bond songs
			Construct, draw and write number bonds to 10 (starting with learning the bonds through song)
			Add and subtract one-digit and two-digit numbers to 20, including zero
			Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
	2		Recap number bonds, missing number calculations, problem solving with number bonds
			Use these number bonds to apply to number bonds to 20. E.g. If I know 6 + 1 = 17, then I know 16 + 1 = 17 and 6 + 11 = 17.
			Use lots of resources to support. Move onto problem solving and missing numbers
	3	Measurement	Compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
			Compare, describe and solve practical problems for: mass/weight [for example, heavy/light, heavier than, lighter than]
			Compare, describe and solve practical problems for: capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
	4	Time	Measure and begin to record the following: time (hours, minutes, seconds)
			Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
			Recognise and use language relating to dates, including days of the week, weeks, months and years
	5		Compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later]
			Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
	6	Fractions	Recognise, find and name a half as one of two equal parts of an object, shape or quantity
			Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.
	7	4OPs revision	Recap number bonds, missing number calculations, problem solving with number bonds
	8	Geometry	Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles]
			Recognise and name common 2-D and 3-D shapes, including: 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].
			Describe position, direction and movement, including whole, half, quarter and three-quarter turns.
	9	Time	Measure and begin to record the following: time (hours, minutes, seconds)
			Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
	10	Assessment/ consolidation	Use summer assessment to identify gaps in the children's learning and revisit topics
	11		
	12	Investigations	Investigations involving 4 operations

Maths: Medium & Long Term Plan: Year 2

Autumn Term															Spring Term												Summer Term											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Place value/ number bonds				Add/subtract	Multi/division	Addition	Division	Subtraction	Add/subtract	4OPs	Problem solving	Assessment/ Consolidation		Investigations	4OPs revision	Fractions		Measurement		Geometry		Statistics	Money	Time	Assessment/ consolidation		4OPs revision	Revision						Investigations		Time		Assessment/ Consolidation		Investigations

	Year 2 Maths Autumn Medium Term Plan		
	Week	**Unit**	**Outcomes**
Autumn	1	Place value / number facts	Recognise the place value of each digit in a two-digit number (tens, ones)
			Identify, represent and estimate numbers using different representations, including the number line
	2		Compare and order numbers from 0 up to 100; use <, > and = signs
			Read and write numbers to at least 100 in numerals and in words
	3		Represent and use number bonds and related subtraction facts within 20
			Use number bonds facts to apply to number bonds to 100 (e.g. If you know number bonds for 7, you know it for 70. 10 + 60 = 70 because 1 + 6 = 7)
	4		Use place value and number facts to solve problems.
	5	Addition & subtraction	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones. No regrouping (not crossing 10)
			Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and tens.No regrouping (not crossing 100)
			Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers No regrouping (not crossing 10 or 100)
	6	Multiplication	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
			Draw and make arrays to represent a times table - 3 x 5 means that you have groups of three, 4 times
			Show that multiplication is commutative (the answer is the same if you swap the numbers around, all this does is changes the way it's grouped)

	7	Addition	Recap: recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
			Add numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones.Includes regrouping so crossing 10. Chn must use their number bonds to get to the next 10 and then add the remaining
			Add numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and tens.No regrouping (not crossing 100). Chn must use their number bonds to get to the next 100 and then add the remaining
	8	Multiplication & Division	Understand what division is (divide by sharing and divide by grouping using times tables). Show with resources and drawings
			Multiplication and division facts - show the links using resources
			Prove that division is not commutative
	9	Subtraction	Recap: Add two-digit and ones/ten using regrouping from the last addition focus week
			Subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones.Includes regrouping so crossing 10. Chn must use their number bonds to get to the next 10 and then add the remaining
			Subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and tens.No regrouping (not crossing 100). Chn must use their number bonds to get to the next 100 and then add the remaining
Autumn	10	Addition & subtraction	Recap: Add and subtract a two-digit number and a one, crossing the tens (use bonds to 10 and add the rest)
			Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: adding **three one-digit numbers.**
			Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
	11	4OPs	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
			Recognise and use the inverse relationship between multiplication and division and use this to check calculations and solve missing number problems. Use resources to prove, arrays, dienes, drawings etc.
	12	Problem solving	Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures
			Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
	13	Assessment & consolidation	Use autumn assessment to identify gaps in the children's learning and revisit topics
	14		
	15	Investigations	Investigations involving 4 operations

	Year 2 Maths Spring Medium Term Plan			
	Week	**Unit**	**Lesson**	**Outcomes/teaching prompts**
Spring	1	Arithmetic/ revision	1	Recap - Add and subtract 2 digit numbers and ones. (no bridging)
			2	Add 2 digit numbers and ones crossing 10. (remind the children to use number bonds)
			3	Recap - Add and subtract 2 digit numbers and 10s.
			4	Subtract 2 digit numbers and ones crossing 10. (remind the children to use number bonds)
	2	Arithmetic	1	**Recap -** Add and subtract 2 digit numbers and ones crossing 10.
			2	Add 3 one-digit numbers.
			3	Column addition.
			4	Column addition crossing 10.
	3	4OPS	1	Column subtraction. (move quickly onto crossing 10 as notation should be familiar to the children following the past 2 lessons)
			2	Recap**:** Column addition and subtraction.
			3	Commutativity in multiplication. (recap 2s,5s,10s and circle arrays)
			4	Draw arrays for times tables.
	4	4OPS/fractions	1	Division by grouping. (Use times tables and arrays)
			2	Multiplication and division. (showing link with arrays)
			3	Fractions. (recognise fractions of a shape)
			4	Equivalent fractions.
	5	Fractions	1	Draw fractions.
			2	Find half of a number. (e.g. half of 6 = 3. Draw a bar model for pictorial)
			3	Find a third of a number. (e.g. a third of 6 = 2. Draw a bar model for pictorial)
			4	Recap fractions of an amount from previous two lessons
	6	Measurement	1	Read and record volume.
			2	Compare measurements. (using > < and =)
			3	Measure and record lengths.
			4	Measure and record mass.
		Geometry	1	2D shapes.
			2	3D Shapes
			3	Identify faces and shapes on the faces of 3-D shapes. (for example, a circle on a cylinder and a triangle on a pyramid) - reinforce the last lesson
			4	Count vertices and edges on 3D shapes.

Spring	8	Statistics	1	Interpret and draw tally charts.
			2	Answer questions about tally charts.
			3	Interpret and draw pictograms.
			4	Answer questions about pictograms.
	9	Money	1	Recognise coins. (reinforce counting in 2s, 5s and 10s)
			2	Recognise coins and notes. (reinforce counting in 2s, 5s and 10s)
			3	Add money. (reinforce column addition)
			4	Subtract money. (reinforce column subtraction)
	10	Time	1	Tell the time to the hour.
			2	Tell the time to half past.
			3	Quarter past.
			4	Quarter to.
	11	Assessment/ consolidation		Use spring assessment to identify gaps in the children's learning and revisit topics
	12			

	Year 2 Maths Summer Medium Term Plan		
	Week	**Unit**	**Outcomes**
Summer	1	4OPs revision	Recap: Add and subtract a two-digit number and a one, crossing the tens (use bonds to 10 and add the rest)
			Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
			Draw and make arrays to represent a times table - 3 x 5 means that you have groups of three, 4 times
			Understand what division is (divide by sharing and divide by grouping using times tables). Show with resources and drawings
	2-6	Revision	Past paper practice, paired papers, fix the mistakes in papers, etc. Use these results to revisit anything that is needed.
	7	Investigation	Investigations involving 4 operations
	8	Time	Know the number of minutes in an hour and the number of hours in a day.
			Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times
	9		Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
			Compare and sequence intervals of time
	10	Assessment/ consolidation	Use summer assessment to identify gaps in the children's learning and revisit topics
	11		
	12	Investigations	Investigations involving 4 operations

Maths: Medium & Long Term Plan: Year 3

Autumn Term															Spring Term												Summer Term											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Place value		Number facts		Add/subtract	Mult/division	Add/subtract	Mult/division	Add/subtract	Multiplication	Addition	Subtraction	Assessment/ Consolidation		Investigations	4OPs revision		Multiplication		Fractions		Money		Geometry		Statistics		Assessment/Consolidation		4OPs revision		Time		Measurement		Fractions	Time	Place value/ 4OPs		Money		Assessment/ Consolidation		Investigations

	Year 3 Maths Autumn Medium Term Plan		
	Week	**Unit**	**Outcomes**
Autumn	1	Place value	Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
			Identify, represent and estimate numbers using different representations
	2		Compare and order numbers up to 1000
			Read and write numbers up to 1000 in numerals and in words
			Solve number problems and practical problems involving these ideas.
	3	Number facts	Number bond songs. Recall must be very quick so lots of practice.
			Represent and use number bonds and related subtraction facts within 20
	4		Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
	5	Addition and subtraction	Add and subtract numbers mentally, including: a three-digit number and ones - no bridging (CPA)
			Add and subtract numbers mentally, including: a three-digit number and tens no bridging (CPA)
			Add and subtract numbers mentally, including: a three-digit number and hundreds no bridging (CPA)
	6	Multiplication and division	Use arrays and resources to demonstrate the concept of multiplication
			Use arrays and resources to demonstrate the concept of multiplication being commutative
			Times tables, recap 2s,5s,10s and introduce 3s
	7	Number facts	Number bond songs. Recall must be very quick so lots of practice.
			Represent and use number bonds and related subtraction facts within 20
			Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
	8	Addition and subtraction	Add numbers mentally, including: a three-digit number and ones, incl. bridging using numbers bonds (CPA)
			Add numbers mentally, including: a three-digit number and tens, incl. bridging using numbers bonds (CPA)
	9	Multiplication and division	Use arrays and resources to demonstrate the concept of division, drawing links with multiplication
			Progress onto recalling multiplication facts and division facts that go with these
			Times tables, 4s

	10	Addition and subtraction	Recap: Add numbers mentally, including: a three-digit number and ones, incl. bridging using numbers bonds (CPA)
			Recap: Add numbers mentally, including: a three-digit number and tens, incl. bridging using numbers bonds (CPA)
			Subtract numbers mentally, including: a three-digit number and tens and ones, incl. bridging using numbers bonds (CPA)
Autumn	11	Multiplication	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers mentally (e.g. if I know 3 x 2 = 6, then 30 x 2 = 60. Use resources and drawings
			Use arrays and resources to demonstrate the concept of division, drawing links with multiplication
			Use arrays and resources to demonstrate the concept of multiplication being commutative, solving times tables they 'do not know'. E.g. 9 x 3, they don't know 9s, but use their 3s, 3 x 9 = 27
	12	Addition	Add numbers with up to three digits, using column, including regrouping (CPA)
	13	Assessment/ consolidation	Use autumn assessment to identify gaps in the children's learning and revisit topics
	14		
	15	Investigations	Investigations involving 4 operations

	Year 3 Maths Spring Medium Term Plan		
	Week	**Unit**	**Outcomes**
Spring	1	4OPs revision	Recap: Add numbers with up to three digits, using column (CPA)
			Recap: Add numbers mentally, including: a three-digit number and tens, incl. bridging using numbers bonds (CPA)
			Subtract numbers mentally, including: a three-digit number and tens and ones, incl. bridging using numbers bonds (CPA)
	2	Subtraction	Subtract numbers with up to three digits, using column, including regrouping (CPA)
	3	Multiplication	Recap: 3s,4s, including division facts
			Recap: Appying times tables (e.g. 4x5=20, so 40x5=200)
			Timetable songs- 8s
	4	Fractions	Understand what fractions are. Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
			Draw and make fractions
			Compare and order unit fractions, and fractions with the same denominators
			Add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7]
	5	Fractions	Recognise and show, using diagrams, equivalent fractions with small denominators (12)
			Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
	6	Money	Find different combinations of coins that equal the same amounts of money
			Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
	7		Convert pence to pounds and vice versa (this will progress into the same problems as above but using £ and p as specified below
			Add and subtract amounts of money to give change, using both £ and p in practical contexts
	8	Geometry	Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
			Recognise angles as a property of shape or a description of a turn
			Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.
	9	Statistics	Interpret and present data using bar charts, pictograms and tables
			Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.
	10	Assessment & consolidation	Use autumn assessment to identify gaps in the children's learning and revisit topics
	11		
	12	Investigations	Investigations involving 4 operations

	Year 3 Maths Summer Medium Term Plan		
	Week	**Unit**	**Outcomes**
Summer	1	4OPs revision	Recap: Add and subtract numbers with up to three digits, using column (CPA)
			Recap: Add numbers mentally, including: a three-digit number and tens, incl. bridging using numbers bonds (CPA)
			Subtract numbers mentally, including: a three-digit number and tens and ones, incl. bridging using numbers bonds (CPA)
	2	Time	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
			Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight
	3		Know the number of seconds in a minute and the number of days in each month, year and leap year
			Compare durations of events [for example to calculate the time taken by particular events or tasks].
	4	Measurement	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
			Measure the perimeter of simple 2-D shapes
			Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. (Geometry)
	5	Multiplication	Recap times tables, arrays and division facts
			Recap: Appying times tables (e.g. 4x5=20, so 40x5=200)
			Progress onto short multiplication. E.g. 43 x 5 = 215
	6	Fractions (Recap)	Draw and make fractions
			Compare and order unit fractions, and fractions with the same denominators
			Add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7]
			Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
	7	Time (Recap)	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
			Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight
			Know the number of seconds in a minute and the number of days in each month, year and leap year
			Compare durations of events [for example to calculate the time taken by particular events or tasks].
	8	Place value / 4OPs	Count from 0 in multiples of 50 and 100; find 10 or 100 more or less than a given number
			Round numbers to the nearest 10. E.g. 148 to 150 as it's close to 150
			Estimate the answer to a calculation and use inverse operations to check answers (understand they can round and adjust, e.g. 148 + 29 is close to 150 + 30 = 180, so the answer will be around 180)
			Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
	10	Money	Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
			Convert pence to pounds and vice versa (this will progress into the same problems as above but using £ and p as specified below
			Add and subtract amounts of money to give change, using both £ and p in practical contexts

	11	Assessment/ consolidation	Use autumn assessment to identify gaps in the children's learning and revisit topics
	12	Investigations	Investigations involving 4 operations

Maths: Medium & Long Term Plan: Year 4

Autumn Term															Spring Term												Summer Term											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Place value			Add/subtract	Mult/division	Add/subtract	Mult/division	Fractions	Mult/division	4Ops problems	Fractions		Assessment/ Consolidation		Investigations	4OPs revision	Fractions	Measurement	Geometry		Time		Multiplication	Money		Assessment/ Consolidation			4OPs revision	Multiplication		Measurement		Position, direction	Statistics		Money		Assessment/ Consolidation		Investigations

	Year 4 Maths Autumn Medium Term Plan		
	Week	**Unit**	**Outcomes**
Autumn	1	Place value	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
			Order and compare numbers beyond 1000
			Identify, represent and estimate numbers using different representations
	2		Find 1000 more or less than a given number
			Round any number to the nearest 10, 100 or 1000
			Count backwards through zero to include negative numbers
	3		Count in multiples of 25 and 1000
			Solve number and practical problems that involve all of the above and with increasingly large positive numbers
			Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.
	4	Addition & subtraction	Add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction. Use CPA approach.
			Estimate and use inverse operations to check answers to a calculation
	5	Multiplication & division	Recognise and use factor pairs and commutativity in mental calculations
			Times tables - 3x, 4x (times table songs)
			Multiplication & division facts using arrays
	6	Addition & subtraction	Add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction. Use CPA approach.
			Estimate and use inverse operations to check answers to a calculation
			Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
	7	Multiplication & division	Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
			Times tables - 6x, 7x (times table songs)

			Multiplication & division facts using arrays
	8	Fractions	Draw and make fractions
			Add and subtract fractions with the same denominator
			Recognise and show, using diagrams, families of common equivalent fractions
			Fractions of an amount
Autumn	9	Multiplication & division	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout and resources
			Multiply two-digit and three-digit numbers by a one-digit number using formal written layout
			Times tables - 8x, 9x (times table songs)
	10	4OPs problems	Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit
			Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
			Reinforce times tables, division facts and arrays
	11	Fractions	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
			Recognise and write decimal equivalents of any number of tenths or hundredths
	12		Recognise and write decimal equivalents to 1/4, 1/2, 3/4
			Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
	13	Assessment & consolidation	Use autumn assessment to identify gaps in the children's learning and revisit topics
	14		
	15	Investigations	Investigations involving 4 operations

	Year 4 Maths Spring Medium Term Plan		
	Week	**Unit**	**Outcomes**
Spring	1	4OPs revision (recap)	Add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction. Use CPA approach.
			Multiply two-digit and three-digit numbers by a one-digit number using formal written layout and resources
			Multiplication and division facts
	2	Fractions (recap)	Draw and make fractions
			Add and subtract fractions with the same denominator
			Recognise and show, using diagrams, families of common equivalent fractions
			Fractions of an amount
	3	Measurement	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
			Find the area of rectilinear shapes by counting squares
			Convert between different units of measure [for example, kilometre to metre; hour to minute]
	4	Geometry	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
			Identify acute and obtuse angles and compare and order angles up to two right angles by size
			Identify lines of symmetry in 2-D shapes presented in different orientations
			Complete a simple symmetric figure with respect to a specific line of symmetry.
	5	Fractions	Round decimals with one decimal place to the nearest whole number
			Compare numbers with the same number of decimal places up to two decimal places
			Solve simple measure and money problems involving fractions and decimals to two decimal places.
	6	Statistics	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
			Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
	7	Time	Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight
			Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
	8		Read, write and convert time between analogue and digital 12- and 24-hour clocks
			Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
	9	Multiplication	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout and resources
			Multiply two-digit and three-digit numbers by a one-digit number using formal written layout
			Times table revision
	10	Money	Add and subtract amounts of money to give change, using both £ and p in practical contexts
			Estimate, compare and calculate different measures, including money in pounds and pence
	11	Assessment/ consolidation	Use spring assessment to identify gaps in the children's learning and revisit topics
	12		

	Year 4 Maths Summer Medium Term Plan		
	Week	**Unit**	**Outcomes**
Summer	1	4OPs revision (recap)	Add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction. Use CPA approach.
			Multiply two-digit and three-digit numbers by a one-digit number using formal written layout and resources
			Multiplication and division facts
	2	Position and direction	Describe positions on a 2-D grid as coordinates in the first quadrant
			Describe movements between positions as translations of a given unit to the left/right and up/down
			Plot specified points and draw sides to complete a given polygon.
	3	Fractions (recap)	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
			Recognise and write decimal equivalents of any number of tenths or hundredths
			Recognise and write decimal equivalents to 1/4, 1/2, 3/4
			Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
	4	Multiplication	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout and resources
			Multiply two-digit and three-digit numbers by a one-digit number using formal written layout
			Times table revision
	5	Time	Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight
			Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
	6		Read, write and convert time between analogue and digital 12- and 24-hour clocks
			Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
	7	Multiplication	Multiply two-digit and 3-digit numbers by a 1 digit number using formal written layout & resources
			Multiply two-digit and three-digit numbers by a one-digit number using formal written layout
			Times table revision
	8	Money	Add and subtract amounts of money to give change, using both £ and p in practical contexts
			Estimate, compare and calculate different measures, including money in pounds and pence
	9	Geometry	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
			Identify acute and obtuse angles and compare and order angles up to two right angles by size
			Identify lines of symmetry in 2-D shapes presented in different orientations
			Complete a simple symmetric figure with respect to a specific line of symmetry.
	10	Assessment/ consolidation	Use summer assessment to identify gaps in the children's learning and revisit topics
	11		
	12	Investigations	Investigations involving 4 operations

Maths: Medium & Long Term Plan: Year 5

Autumn Term															Spring Term												Summer Term										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Place value			Add/subtract	Mult/division	Fractions	Mult/division	4OPs	Fractions	Fract,dec,%		4OPs	Assessment/ Consolidation		Investigations	4OPs revision	Statistics	Geometry		Time		Area, peri,vol	Measurement		Assessment/ Consolidation			4OPs revision	Fract,dec,%	Missing numbers	Geometry		Time		Position,direction	Statistics	Assessment/ Consolidation		Investigations

	Year 5 Maths Autumn Medium Term Plan		
	Week	**Unit**	**Outcomes**
Autumn	1	Place Value	Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
			Count forwards or backwards in steps of 10 for any given number up to 1 000 000
	2		Interpret negative numbers, count forwards and backwards with positive and negative whole numbers, including through zero
			Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000
	3		Solve number problems and practical problems that involve all of the above
			Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
	4	Addition and subtraction	Add and subtract whole numbers with more than 4 digits, including using column
			Use rounding to check answers to calculations and determine levels of accuracy
			Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
	5	Multiplication and division	Identify multiples and factors, including finding all factor pairs of a number, and lowest common factors
			Know and use the vocabulary of prime numbers and prime factors
			Establish whether a number up to 100 is prime and recall prime numbers up to 19
			Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
	6	Fractions	Compare and order fractions whose denominators are all multiples of the same number
			Add and subtract fractions with the same denominator and denominators that are multiples of the same number
			Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
	7	Multiplication and division	Multiply numbers up to 4 digits by a one- or two-digit number using long multiplication
			Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)
			Divide numbers up to 4 digits by a one-digit number using the formal written method of short division
	8	4OPs	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
			Money problems
	9	Fractions	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5
			Read and write decimal numbers as fractions (10) [for example, 0.71 = 71/100}

			Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
	10	Area, perimeter, volume	Convert between different units of metric measure (e.g. km to m; cm to m; cm to mm; g to kg; l to ml)
			Calculate and compare the area of rectangles (including squares) and estimate the area of irregular shapes
			Estimate and calculate volume
			Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
Autumn	11	Fractions, dec,%	Read, write, order and compare numbers with up to three decimal places
			Round decimals with two decimal places to the nearest whole number and to one decimal place
			Recognise the per cent symbol (%) and write % as a fraction with denominator 100, and as a decimal
	12	4OPs	Add and subtract whole numbers with more than 4 digits, including using column
			Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
			4OPs problems, involving multistep
	13	Assessment/ consolidation	Use autumn assessment to identify gaps in the children's learning and revisit topics
	14		
	15	Investigations	Investigations involving 4 operations

	Year 5 Maths Spring Medium Term Plan		
	Week	**Unit**	**Outcomes**
Spring	1	4OPs revision	Add and subtract whole numbers with more than 4 digits, including using column
			Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
			4OPs problems, involving multistep
	2	Statistics	Solve comparison, sum and difference problems using information presented in a line graph
			Complete, read and interpret information in tables, including timetables.
	3	Geometry	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
			Draw given angles, and measure them in degrees
			Identify: angles at a point and one whole turn (total 360)
			Identify: angles at a point on a straight line and 1/2 turn (total 180)
	4	Geometry	Use the properties of rectangles to deduce related facts and find missing lengths and angles
			Distinguish between regular and irregular polygons based on reasoning about equal sides and angles (perpendicular, parallel, vertical, horizontal recap)
			Identify 3-D shapes, including cubes and other cuboids, from 2-D representations
	5	Time	Estimate and read time to the nearest minute
			Know the number of seconds in a minute and the number of days in each month, year and leap year, convert seconds to minutes and minutes to hours
	6		Read, write and convert time between analogue and digital 12- and 24-hour clocks
			Solve problems involving converting between units of time
	7	Fractions, dec,%	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
			Solve problems involving number up to three decimal places
			Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.
	8	Position & direction	Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.
			Reflections, including reflections on a graph and properties of shapes
	9	Measurement	Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
			Problems involving conversion, including multistep problems
	10	Assessment/ consolidation	Use spring assessment to identify gaps in the children's learning and revisit topics
	11		
	12		

	Year 5 Maths Summer Medium Term Plan		
	Week	**Unit**	**Outcomes**
Summer	1	4OPs revision	Add and subtract whole numbers with more than 4 digits, including using column
			Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
			4OPs problems, involving multistep
	2	Fractions,dec,%	Recap fractions using the 4 operations
			Recap fractions of amounts
			Recap percentages of amounts
			Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.
	3	4OPs (missing numbers and application)	Multiply and divide numbers mentally drawing upon known facts (e.g. 4x3=12, so 40x3=120,40x30=1200, 0.4x3=1.2)
			Addition and subtraction with missing numbers (understanding what each part of the calculation means)
			Column addition and subtraction with missing numbers
	4	Geometry	Angles recap, including identifying and measuring (acute, obtuse, reflex)
			Identify 3-D shapes and their properties
			Construct 3-D shapes out of nets, highlighting the faces and edges
	5	Geometry	Triangles (equilateral, isosceles, right angle, scalene), classify these
			Finding missing angles in a triangle
			Solve geometry problems
	6	Time	Estimate and read time to the nearest minute
			Read, write and convert time between analogue and digital 12- and 24-hour clocks
			Know the number of seconds in a minute and the number of days in each month, year and leap year, convert seconds to minutes and minutes to hours
	7	Time	Solve problems involving converting between units of time
			Solve timetable problems
	8	Area, perimeter, volume	Convert between different units of metric measure (e.g. km to m; cm to m; cm to mm; g to kg; l to ml)
			Calculate and compare the area of rectangles (including squares) and estimate the area of irregular shapes
			Estimate and calculate volume
			Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
	9	Statistics	Solve comparison, sum and difference problems using information presented in a line graph
			Complete, read and interpret information in tables, including timetables.
	10	Assessment/ consolidation	Use summer assessment to identify gaps in the children's learning and revisit topics
	11		
	12	Investigations	Investigations involving 4 operations

Maths: Medium & Long Term Plan: Year 6

Autumn Term															Spring Term												Summer Term										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Place value		Add/subtract	Mult/division	4Ops	Fractions	4Ops problems		Fract, dec,%	4OPs	Fract, dec,%	4Ops problems	Assessment/ consolidation		Investigations	4Ops revision	Area, perimeter, volume		Statistics	Algebra	Conversion/time	Shape	Revision					Investigations/KS3 preparation										

	Year 6 Autumn Maths Medium Term Plan		
	Week	**Unit**	**Outcomes**
Autumn	1	Place Value	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
			Round any whole number to a required degree of accuracy
	2		Use negative numbers in context, and calculate intervals across zero
			Solve number and practical problems that involve all of the above.
	3	Addition and Subtraction	Add and subtract whole numbers with more than 4 digits, including using column methods
			Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
			Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
	4	Multiplication and Division	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using long multiplication
			Divide numbers up to 4 digits by a two-digit number using **short** division
			Divide numbers up to 4 digits by a two-digit whole number using **long** division
			Multiply and divide by 10, 100 and 1000
	5	4OPs	Identify common factors, common multiples and prime numbers
			Order of operations
	6	Fractions	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
			Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
			Multiply simple pairs of proper fractions, writing the answer in its simplest form
			Fractions of an amount
	7	4OPs	Operations revision
			Solve + and - multi-step problems in contexts, deciding which operations and methods to use
	8	Fractions, decimals, %	Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6]
			Divide a fraction by another fraction
			Fractions of an amount

	9	Fractions, decimals, %	Percentage of amount, multiple of 10 (e.g. 30% of 260)
			Percentage of amount (e.g. 34% of 260)
			Equivalent fractions
	10	4OPs	Money problems
			Solve problems involving addition, subtraction, multiplication and division
			4OPs assessment
	11	Fractions, decimals, %	Compare and order fractions, including fractions > 1, using >, < and =
			Fractions revision
			Multiply one-digit numbers with up to two decimal places by whole numbers
	12	4OPs	Money problems
			Solve problems involving addition, subtraction, multiplication and division
			4OPs assessment
	13	Arithmetic revision and assessment	Arithmetic revision and assessment
	14		

	Year 6 Spring Maths Medium Term Plan		
	Week	**Unit**	**Outcomes**
Spring	1	4OPs revision	4OPs revision
	2	Area, perimeter, volume	Recognise that shapes with the same areas can have different perimeters and vice versa
			Find the area and perimeter of compound shapes
			Calculate the area of triangles
	3	Area, perimeter, volume	Calculate missing lengths using area
			Calculate the volume of 3D shapes
			Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3)
	4	Statistics	Interpret and construct pie charts and line graphs and use these to solve problems
			Calculate and interpret the mean as an average.
	5	Algebra	Use simple formulae
			Generate and describe linear number sequences
			Express missing number problems algebraically
			Find pairs of numbers that satisfy an equation with two unknowns
			Enumerate possibilities of combinations of two variables.
	6	Conversion	Use, read, write and convert between standard units (length, mass, volume, time)
			Solve problems involving the calculation and conversion of units of measure
			Compare and order items with different units of measurement
		Shape	Measure angles, draw shapes with these angles
			Recognise, describe and build simple 3-D shapes, including making nets
			Compare and classify 3D shapes based on their properties
			Illustrate and name parts of circles, including radius, diameter, circumference and know diameter is twice the radius
			Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles (acute, obtuse, reflex)
	8	Position and direction	Describe positions on the full coordinate grid (all four quadrants)
			Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. (15)
	9-12	Revision	Revision

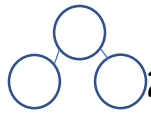
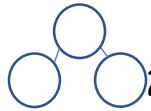
Fluency Friday – Long Term Plan

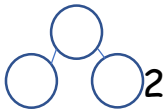
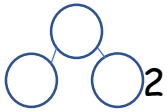
	Autumn														Spring												Summer											
Wk	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Y1	Bonds to 3		Bonds for 4		Bonds for 5		Bonds for 6		Bonds for 7		Bonds for 8		Revise bonds		Bonds for 9		Bonds for 10		Revise bonds		Bonds up to 20 (apply)							Revise bonds		Add 2-digit and 1s		+ 2digit and 1s bridging		- 2digit and 1s bridging		Revise bonds		Add 2-digit and 1s (onto 10s)		Arrays		Add 3 numbers		Draw fractions		Fractions of amounts		Recap key areas of spring							Revise bonds		Arrays		+ & - 1s		Consolidate	
Y2	Place value															Revise bonds		Add 2-digit and 1s		+ 2digit and 1s bridging		- 2digit and 1s bridging		Revise bonds		Add 2-digit and 1s (onto 10s)		Arrays		Add 3 numbers		Draw fractions		Fractions of amounts		Recap key areas of spring							Revise bonds		Arrays		+ & - 1s		Consolidate	
Y3	Place value digit		Bonds for 5 and 6		Bonds for 7 and 8		2digit mental +		3digit mental +		3x tables recall		Bond revision		4x table recall		Mental + 1s bridging		Mental + 10s bridging		Mental - 1s bridging		Mental - 10s bridging		Mental - revision		Recap previous objectives		Mental +		Mental -		X table arrays		Column + no regrouping		Column + regrouping		6x table recall		Mental + and -		Column - no regrouping		Column - regrouping		X table arrays		+ and - fractions		Recap previous objectives		Column +		Column -		X table revision		Column x		Commutativity		Column x		Arrays		Fractions of an amount		+ & - fractions		Column + & -		Column x	
Y4	Bonds		Bond application		Value of each digit		Mental +no regrouping		Column +		Arrays		3x table & x0		Column -		6x table & x0		Column + (dec)		8x table		Column - (dec)		X table & division		X tables		Column + & -		7x table recall		Commutativity		X 3 numbers		Column + & -		Divide by 10 & 100		Column + & -		9x table recall		Column x		+ & - fractions		11x table		12x table		Column + & -		Column x		12x table		X tables										Column x		+ & - fractions		Fractions of an amount	
Y5	Column +		Column -		Column + & -		Column x		Short division		Recap x and division		Column x		Column + & -		Column x		X table application				Column + & -		X and division		Arithmetic test & follow up		4 OPS review				X and divide by 10,100,1000		+ & - fractions				4OPS review				X and divide by 10,100,1000		Inverse + & -		Arithmetic test		Follow up		4OPS review		+ & - fractions		X table application		Arithmetic test		Follow up		Arithmetic test		Follow up		Arithmetic test		Follow up		Arithmetic test		Follow up	
Y6	Column +		Column -		+ fractions		- fractions		X fractions		Divide fractions		4ops fractions		Column x		BODMAS		Short division		Long division		% of an amount		Arithmetic test		Follow up		Arithmetic test		Follow up										Arithmetic test		Follow up										Arithmetic test		Follow up										Arithmetic test		Follow up										Arithmetic test		Follow up	

Year 1 Arithmetic Objectives (including recap objectives)

	Objective
Addition and subtraction	read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
	represent and use number bonds and related subtraction facts within 20
	add and subtract one-digit and two-digit numbers to 20, including zero solve one-step problems that involve addition and subtraction,
	using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.
Multiplication and division	solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.
Fractions	recognise, find and name a half as one of two equal parts of an object, shape or quantity
	recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

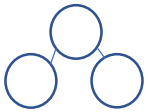
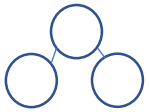
Year 1 FF Autumn MTP

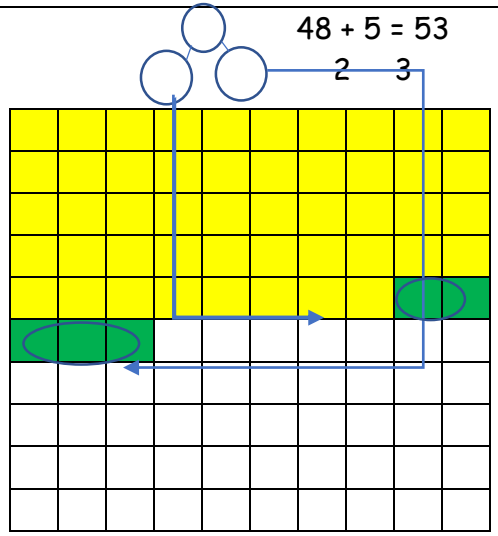
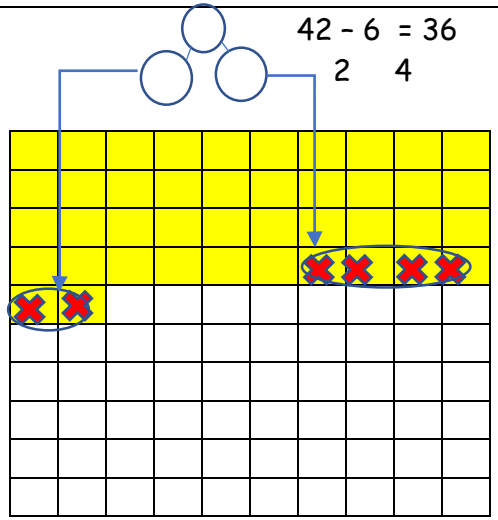
	Week	Objective	Example Qs
Autumn	1	Number bonds **up to** 3	
	2	Number bonds for 4	
	3		
	4	Bonds for 6	Number bond song link below https://www.loom.com/share/d18b2b05f37f4b72ad8e70a357788426
	5	Recap bonds for 6 and then bonds for 7	4 + 2 = 6 3 + _ = 7  6 1 5
	6	Bonds for 8	Number bond song link below https://www.loom.com/share/0260942d28ef4181a084422eea337d0b
	7	Bonds revision – bonds **up to** 8	6 + 2 = 8 5 + _ = 7  8 1 7
	Half term		

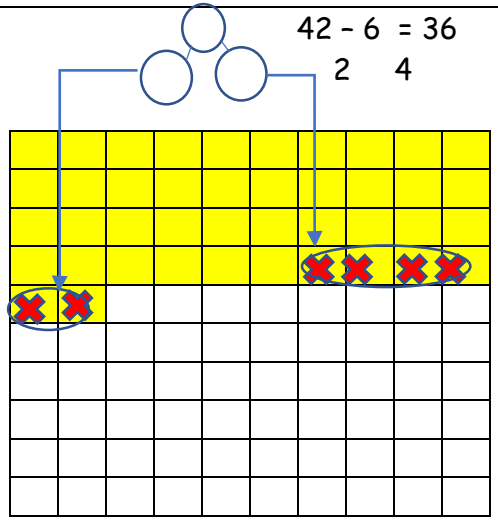
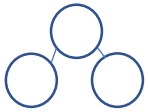
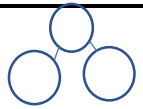
	1	Bonds revision – bonds **up to** 8	6 + 2 = 8 5 + _ = 7  8 1 7
	2	Bonds for 9	Number bond song link below https://www.loom.com/share/a17d1126171c426baedebb3f7bb9c24b
	3	Bonds for 10	Using egg boxes 6 + 4 = __ 6 + __ = 10 
	4	Revise bonds **up to** 10	6 + 2 = 8 5 + _ = 7  10 2 8
	5 6	Bonds **up to** 20 Apply number bonds	If I know my bonds for 8, then I know… 6 + 2 = 8 16 + 2 = 18 6 + 12 = 18 etc.

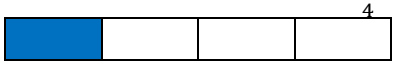
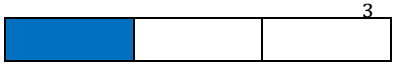
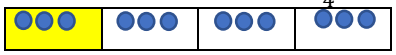
	7	Number bond application (making maths easy!)	2 + 8 = 10 20 + 80 = 100 5 + 4 = 9 50 + 40 = 90

Year 1 FF Spring MTP

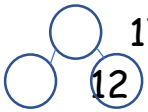
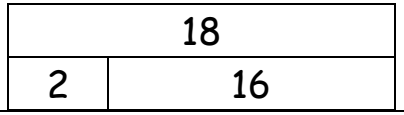
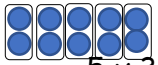
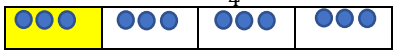
	Week	Objective	Example Qs
Spring	1	Number bond revision **up to** 10	6 + 2 = 8 5 + _ = 7  7 2 5 8 2 | 6
	2	Number bond revision **up to** 20	16 + 2 = 18 15 + _ = 17  17 12 5 18 2 | 16
	3	a two-digit number and 1s, no bridging (learn to look at the ones) – quicker speed throughout the lesson	34 + 4 = 38 81 + 8 = 89 48 – 7 = 41

	4	add two-digit number and 1s, bridging using number bonds	 **Please note**: they do not have 100 square in SATs
	5	Subtract two-digit number and 1s, bridging using number bonds	 **Please note**: they do not have 100 square in SATs

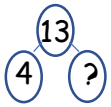
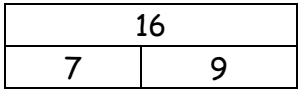
	6	Subtract two-digit number and 1s, bridging using number bonds	 **Please note:** they do not have 100 square in SATs
		Half term	
	1	Number bond revision to 20	16 + 2 = 18 15 + _ = 17  18 2 16
	2	Recap adding two digit and ones and move onto adding tens to a 2 digit number	

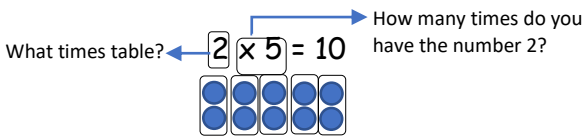
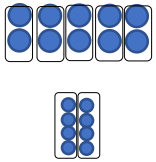
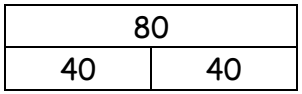
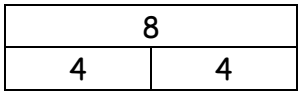
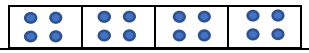
	3	Multiplication 2s, 5s and 10s recall and arrays	2 x 5 = 10  5 x 3 = 15 
	4	Adding 3 one digit numbers	3 + 5 + 6 = 14 4 + 6 + ___ = 17
	5	Drawing fractions	$\frac{1}{4}$  $\frac{1}{3}$ 
	6	Finding fractions of amounts	$\frac{1}{4}$ of 12 

Year 1 FF Summer MTP

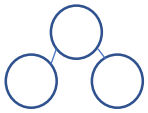
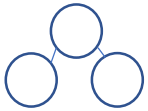
	Week	Objective	Example Qs
Summer	1-6	Lesson dependent on assessment in for SATs	
		Half term	
	1	Number bond revision **up to** 20	16 + 2 = 18 15 + _ = 17  
	2	Multiplication 2s, 5s and 10s recall and arrays	2 x 5 = 10  5 x 3 = 15 
	3	Addition and subtraction 2 digit and ones revision	See Qs from spring
	4	Finding fractions of amounts	$\frac{1}{4}$ of 12 
	5	Addition and subtraction, add 3 one digit numbers	
	6	Investigations	

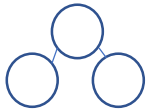
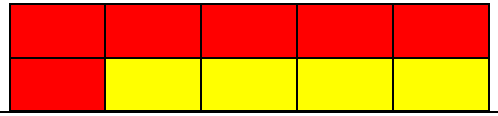
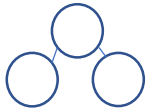
Year 2 Arithmetic Objectives (including recap objectives)

	Objective		Example Qs
Addition and subtraction	recognise the place value of each digit in a two-digit number (10s, 1s)		3 + 7 = 100 – 1 = 8 + _ + 4 = 17 58 + 32 = 45 + 16 = 60 + _ = 89 _ + 25 = 37 54 – 15 = _ - 50 = 50 66 – 38 =
	recall and use addition and subtraction facts to 20 fluently		 3 + 7 = 
	Add and subtract	a two-digit number and 1s	2 + 67 = 19 – 3 = 43 + 5 =
		a two-digit number and 10s	41 – 10 = 33 + 10 = 67 – 40 30 + 50 =
		2 two-digit numbers	31 + 46 = 92 – 85 =
		adding 3 one-digit numbers	8 + 5 + 4 = 17 8 + _ + 4 = 17
	recognise and use the inverse relationship between addition and subtraction (making maths easy!)		34 + 23 = 57 57 – 23 = 34 57 – 34 = 23

	show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot	3 + 4 = 7 4 + 3 = 7 Apply to larger numbers 7 – 3 = 4 3 – 7 you cannot do Demonstrate with resources
Multiplication and division	recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables	2 x 7 = 10 x 5 = 15 ÷ 5 = 100 ÷ 10 = 60 ÷ 5 =
	show that multiplication of 2 numbers can be done in any order (commutative) Times table revision and arrays – 2s, 3s, 5s and 10s 	Use arrays to demonstate 2 x 5 = 10  4 x 2 = 8
Fractions	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	$\frac{1}{2}$ of 80 =  Use $\frac{1}{2}$ of 8 to help  $\frac{1}{4}$ of 16 = 

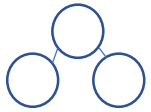
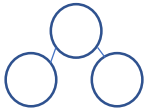
Year 2 FF Autumn MTP

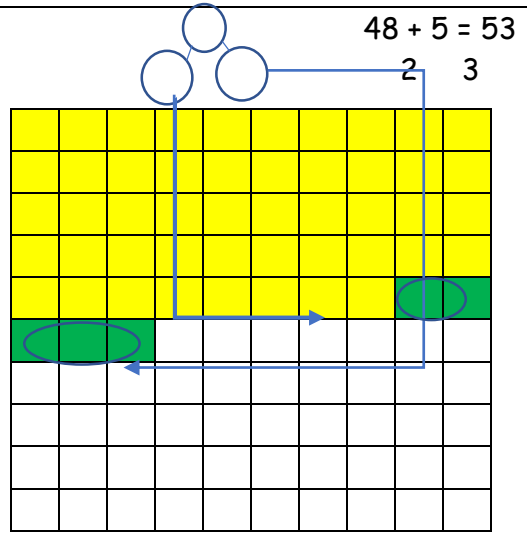
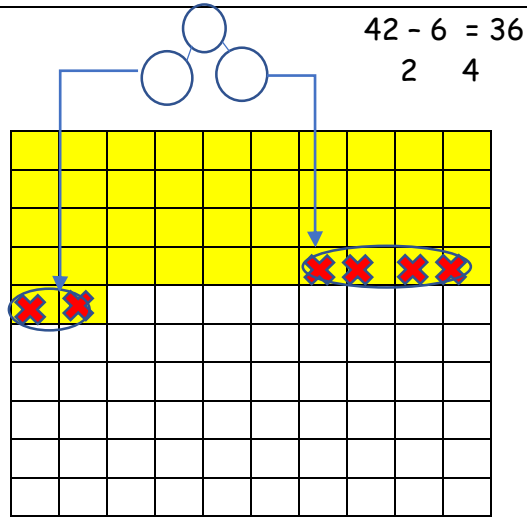
	Week	Objective	Example Qs
Autumn	1	Place value	30 + 4 = 34
	2		___ = 40 + 9 60 + ___ = 65
	3	Bonds for 6	Number bond song link below https://www.loom.com/share/d18b2b05f37f4b72ad8e70a357788426
	4	Bonds for 7	Number bond song link below https://www.loom.com/share/8559d767dc5542ec911784d5e8289853
	5	Recap bonds for 6 and 7	4 + 2 = 6 3 + _ = 7  7 2 5 6 1 5
	6	Bonds for 8	Number bond song link below https://www.loom.com/share/0260942d28ef4181a084422eea337d0b
	7	Bonds revision – bonds **up to** 8	6 + 2 = 8 5 + _ = 7  7 2 5 8 1 7

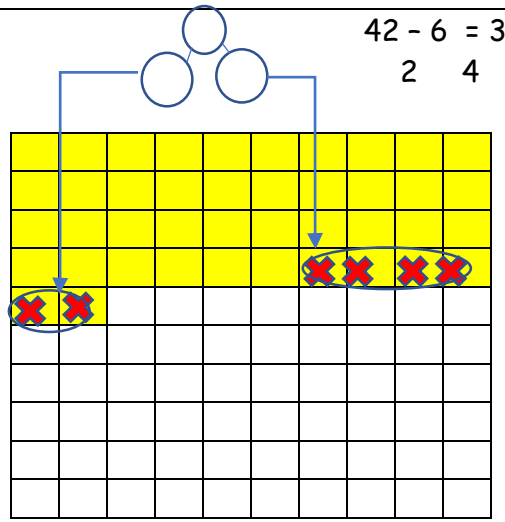
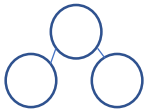
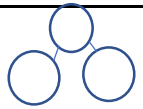
	Half term	
1	Bonds revision – bonds **up to** 8	6 + 2 = 8 5 + _ = 7  7 2 5 8 1 7
2	Bonds for 9 PowerPoint is on OneDrive	Number bond song link below https://www.loom.com/share/a17d1126171c426baedebb3f7bb9c24b
3	Bonds for 10	Using egg boxes 6 + 4 = __ 6 + __ = 10 
4	Revise bonds **up to** 10	6 + 2 = 8 5 + _ = 7  7 2 5 10 2 8
5	Bonds **up to** 20	If I know my bonds for 8, then I know…

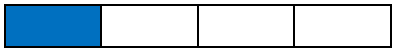
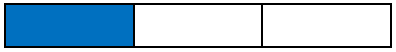
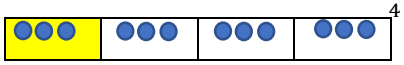
	6	Apply number bonds	6 + 2 = 8 16 + 2 = 18 6 + 12 = 18 3 + 5 = 8 13 + 5 = 18 3 + 15 = 18
	7	Number bond application (making maths easy!)	2 + 8 = 10 20 + 80 = 100 5 + 4 = 9 50 + 40 = 90

Year 2 FF Spring MTP

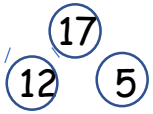
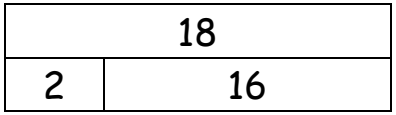
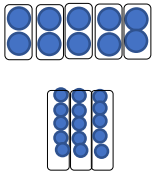
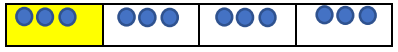
	Week	Objective	Example Qs
Spring	1	Number bond revision **up to** 10	6 + 2 = 8 5 + _ = 7  7 2 5 8 2 6
	2	Number bond revision **up to** 20	16 + 2 = 18 15 + _ = 17  17 12 5 18 2 16
	3	a two-digit number and 1s, no bridging (learn to look at the ones) – quicker speed throughout the lesson	34 + 4 = 38 81 + 8 = 89 48 – 7 = 41

	4	add two-digit number and 1s, bridging using number bonds	 **Please note:** they do not have 100 square in SATs
	5	Subtract two-digit number and 1s, bridging using number bonds	 **Please note:** they do not have 100 square in SATs

	6	Subtract two-digit number and 1s, bridging using number bonds	 42 – 6 = 36 2 4 **Please note:** they do not have 100 square in SATs
		Half term	
	1	Number bond revision to 20	 16 + 2 = 18 15 + _ = 17 17 12 5 18 2 16
	2	Recap adding two digit and ones and move onto adding tens to a 2 digit number	 42 – 6 = 36 2 4
	3	Multiplication 2s, 5s and 10s recall and arrays	 2 x 5 = 10

			5 x 3 = 15 
	4	Adding 3 one digit numbers	3 + 5 + 6 = 14 8 4 + 6 + ___ = 17
	5	Drawing fractions	$\frac{1}{4}$  $\frac{1}{3}$ 
	6	Finding fractions of amounts	$\frac{1}{4}$ of 12 

Year 2 FF Summer MTP

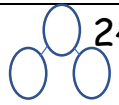
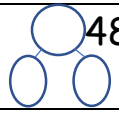
	Week	Objective	Example Qs
Summer	1-6	Lesson dependent on assessment in for SATs	
	Half term		
	1	Number bond revision **up to** 20	16 + 2 = 18 15 + _ = 17  
	2	Multiplication 2s, 5s and 10s recall and arrays	 2 x 5 = 10 5 x 3 = 15
	3	Addition and subtraction 2 digit and ones revision	See Qs from spring
	4	Finding fractions of amounts	 $\frac{1}{4}$ of 12
	5	Addition and subtraction, add 3 one digit numbers	
	6	Investigations	

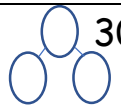
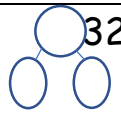
Year 3 Arithmetic Objectives (including recap objectives)

	Objective	Example Qs
Addition and subtraction	Recognise the **place value** of each digit in a three-digit and four-digit number (thousands, hundreds, tens, ones)	100 + 50 + 9 = 524 = 500 + ___ + 4
	Add and subtract numbers **mentally**, including: • a three-digit number and 1s • a three-digit number and 10s • a three-digit number and 100s	153 + 5 = 23 + 70 = 458 + 400 = ___ = 345 - 4 ___ = 275 - 50
	Mental addition and subtraction using mental **bridging**	168 + 7 = 187 + 50 = ____ = 458 – 9 ____ = 326 - 60
	Add and subtract numbers with up to 3 digits, using **column addition and subtraction**	Without regrouping 362 + 136 = 397 – 124 =
		With regrouping 497 + 238 = 124 – 57 =
Multiplication and	**Recall** and use multiplication and division facts for the 1,2,5, 10, 3, 4 and 8 multiplication tables	3 x 4 = ___ = 4 x 7 36 ÷ 6 =
	Column multiplication for two-digit numbers times one-digit numbers	24 x 2 = 38 x 6 =

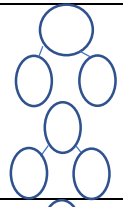
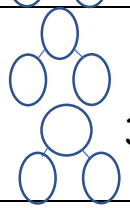
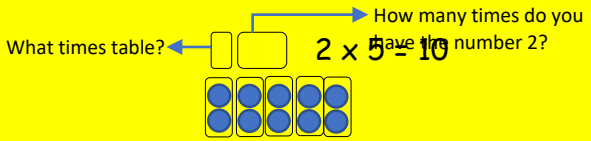
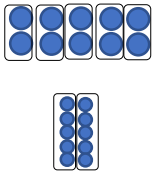
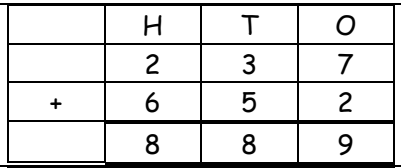
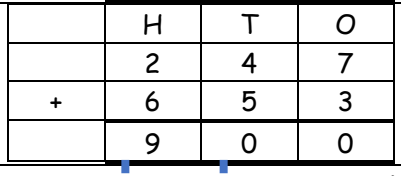
Fractions	Find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	$\frac{1}{3}$ of 9 = Move onto non-unit $\frac{2}{3}$ of 9 =
	add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]	$\frac{2}{7} + \frac{2}{7} =$ $\frac{9}{11} - \frac{5}{11} =$

Year 3 FF Autumn MTP

	Week	Objective	Example Qs
Autumn	1	Recognise **place value** of each digit	100 + 50 + 9 = 524 = 500 + ___ + 4
	2	Number bonds for 5 and 6	Bond song for 6s
	3	Number bonds for 7 and 8	Bond songs
	4	**Mental** addition and subtraction three digit ones and tens (no bridging)	53 + 5 = 23 + 70 = ___ = 43 + 34
	5	**Mental** addition and subtraction three digit and hundreds (no bridging)	253 + 125 = ___ = 413 + 324
	6	Times tables – 3x tables, **recall** focus	3x table song **https://youtu.be/QYiK5a40z_8**
	7	Number bond revision, including number bonds to 10	Part-whole with numbers
		Half term	
	1	Times tables 4x tables, **recall** focus	4x table song **https://youtu.be/JO66NtuQ_e8**
	2	**Mental** addition three digit and 1s, including bridging (use number bonds)	 248 + 5 = 253
	3	**Mental** addition three digit and 10s, including bridging (use number bonds)	 481 + 30 = 511

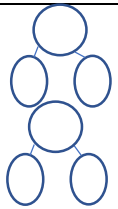
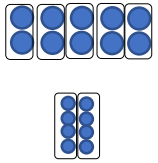
	4	**Mental** addition revision, including bridging and mixing between 1s and 10s (use number bonds)	481 + 36 =
	5	**Mental** subtraction three digit and 1s, including bridging (use number bonds)	 304 – 5 = 299 407 – 9 =
	6	**Mental** subtraction three digit and 10s, including bridging (use number bonds)	 324 – 50 = 274 ____ = 832 – 60
	7	**Mental** subtraction revision, including bridging and mixing between 1s and 10s	324 – 52 = ____ = 832 – 61

Year 3 FF Spring MTP

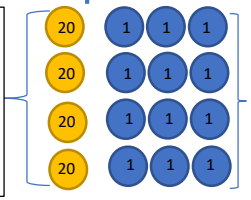
	Week	Objective	Example Qs
Spring	1	**Mental** addition revision, including bridging	 481 + 30 = 511 248 + 5 = 253
	2	**Mental** subtraction revision, including bridging	 304 – 5 = 299 324 – 50 =274
	3	Times table revision and arrays – 2s, 3s, 5s and 10s 	2 x 5 = 10  5 x 2 = 10
	4	**Column addition,** without regrouping	
	5	**Column addition** with regrouping (base 10 resources can be used with place value mats)	
	6	Times tables – 8x table, **recall** focus	8x table song **https://youtu.be/yGeJKWQ_e2Y**
		Half term	

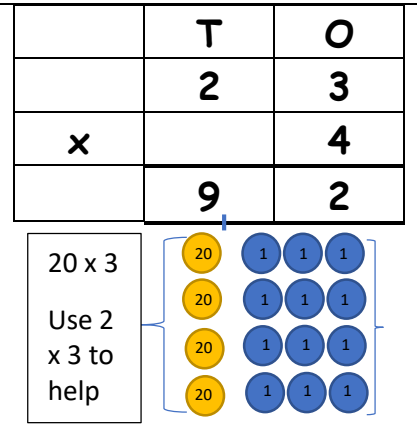
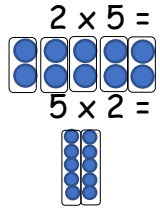
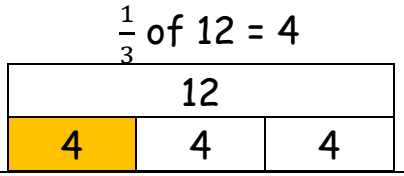
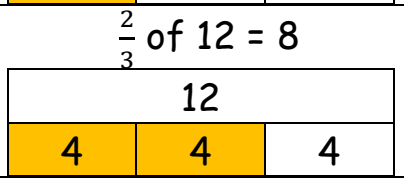
	H	T	O
	2	3	7
+	6	5	2
	8	8	9

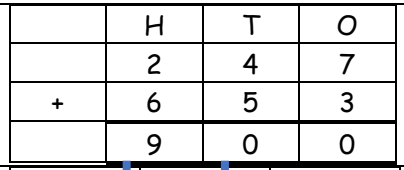
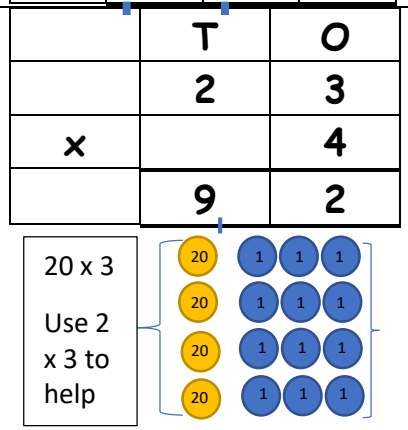
	H	T	O
	2	4	7
+	6	5	3
	9	0	0

	1	**Mental** addition and subtraction, including bridging	 481 + 30 = 511 421 - 30 = 391
	2	**Column addition** revision	<table><tr><td></td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td>2</td><td>3</td><td>7</td></tr><tr><td>+</td><td>6</td><td>5</td><td>2</td></tr><tr><td></td><td>8</td><td>8</td><td>9</td></tr></table>
	3	**Column subtraction**, moving onto regrouping where appropriate	<table><tr><td></td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td>2</td><td>5</td><td>7</td></tr><tr><td>-</td><td>1</td><td>5</td><td>2</td></tr><tr><td></td><td>1</td><td>0</td><td>5</td></tr></table>
	4	**Column subtraction** including regrouping	<table><tr><td></td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td>~~8~~ 7</td><td>1 3</td><td>7</td></tr><tr><td>-</td><td>6</td><td>5</td><td>2</td></tr><tr><td></td><td>1</td><td>8</td><td>5</td></tr></table> **Link for teaching below:** https://www.loom.com/share/c8e7b8ca60f44389b973982ae28f5d2c
	5	Times table revision and arrays – 2s,3s,4s,5s,8s,10s	 2 x 5 = 10 4 x 2 = 8
	6	**Add and subtract fractions**	$\frac{1}{6} + \frac{2}{6} = \frac{3}{6}$ $\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$

Year 3 FF Summer MTP

	Week	Objective	Example Qs
Summer	1	**Column addition** revision	<table><tr><td></td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td>2</td><td>4</td><td>7</td></tr><tr><td>+</td><td>6</td><td>5</td><td>3</td></tr><tr><td></td><td>9</td><td>0</td><td>0</td></tr></table>
	2	Recap **column subtraction**	<table><tr><td></td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td>~~8~~ 7</td><td>1 3</td><td>7</td></tr><tr><td>-</td><td>6</td><td>5</td><td>2</td></tr><tr><td></td><td>1</td><td>8</td><td>5</td></tr></table> **Link for teaching below:** https://www.loom.com/share/c8e7b8ca60f44389b973982ae28f5d2c
	3	Times table revision - **recall**	4 x 3 = 12 4 x ___ = 12
	4	**Column multiplication**, 2 digit by 1 digit	<table><tr><td></td><td>T</td><td>O</td></tr><tr><td></td><td>2</td><td>3</td></tr><tr><td>x</td><td></td><td>4</td></tr><tr><td></td><td>9</td><td>2</td></tr></table> 20 x 3 Use 2 x 3 to help 
	5	Times tables – commutativity (e.g. 2x9 = 9x2)	3 x 6 = 6 x 3

	6	Recap **column multiplication** (recap commutativity, so they can do one or the other times table)	
	Half term		
	1	Recap arrays and times known times table	
	2	Fractions of an **amount** (use times tables and bar models)	
	3	Fractions of an **amount** (use times tables)	
	4	**Add and subtract fractions**	$\frac{1}{6} + \frac{2}{6} = \frac{3}{6}$ $\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$

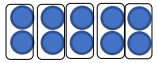
	5	**Column addition and subtraction** recap	
	6	Recap **column multiplication**	

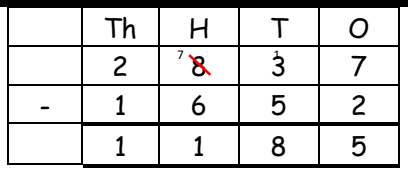
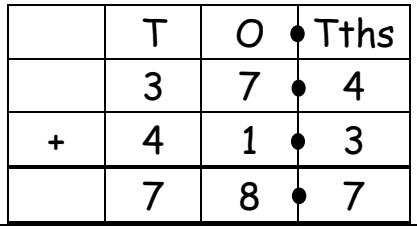
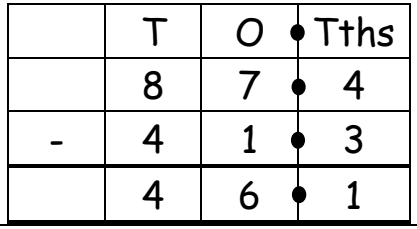
Year 4 Arithmetic Objectives (including recap objectives)

	Objective	Example Qs
Addition and subtraction	recognise the place value of each digit in a three-digit and four-digit number (thousands, hundreds, tens, ones)	1000 + 300 + 20 = 2345 = 2000 + ___ + 40 + 5
	add and subtract numbers mentally, including: • a three-digit number and ones • a three-digit number and tens • a three-digit number and hundreds • thousands	56 + 70 = 276 + 100 = 698 – 300 = 476 + 1000=
	add and subtract numbers with up to three digits, using column addition and subtraction	345 + 497 =
	add and subtract numbers with up to 4 digits using column addition and subtraction where appropriate (including decimals) **Note:** questions with and without regrouping	6782 + 2561 = 5112 – 456 =
		4.56 + 2.9 = 7.82 – 0.02 =
	operations to check answers to a calculation	6782 + 2561 = Children can use the inverse to check the answer in a test
Multiplication and division	recall multiplication and division facts for multiplication tables up to 12 × 12	7 x 9 =
	multiplying together three numbers	3 x 8 x 5 =
	Dividing by 1	54 ÷ 1 =
	Multiplying by 0	87 x 0 = 0 x 43 =
	recognise and use factor pairs and commutativity in mental calculations	9 x 4 = If they find 9s more difficult, do 4 x 9 = 36

	Column multiplication	34 x 8 = 656 x 7 =
	dividing a one- or two-digit number by 10 and 100	56 ÷ 100 = 87 ÷ 10 =
Fractions	add and subtract fractions with the same denominator	$\frac{2}{5} + \frac{1}{5} =$ $\frac{7}{8} + \frac{3}{8} =$
	find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	$\frac{1}{3}$ of 15 = $\frac{3}{4}$ of 8 = $\frac{5}{6}$ of 18 =

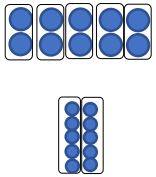
Year 4 FF Autumn MTP

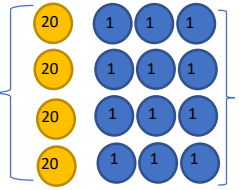
<table>
<tr><th></th><th>Week</th><th>Objective</th><th>Example Qs</th></tr>
<tr><td rowspan="6">Autumn</td><td>1</td><td>Number bonds</td><td>Flashcards, Hit the Button, 1 Minute Maths app</td></tr>
<tr><td>2</td><td>Number bond application</td><td>3 + 4 = 7
30 + 40 = 70
300 + 400 = 700
3000 + 4000 = 7000</td></tr>
<tr><td>3</td><td>Recognise the value of each digit</td><td>2000 + 300 + 60 + 1 = 2361
3751 = 3000 + ___ + 50 + 1</td></tr>
<tr><td>4</td><td>Mental addition (ones, tens, hundreds that do not regroup)</td><td><table><tr><td></td><td>Th</td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td>2</td><td>3</td><td>7</td><td>4</td></tr><tr><td>+</td><td>6</td><td>4</td><td>1</td><td>3</td></tr><tr><td></td><td>8</td><td>7</td><td>8</td><td>7</td></tr></table></td></tr>
<tr><td>5</td><td>Column addition, plus move onto regrouping</td><td><table><tr><td></td><td>Th</td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td>2</td><td>8</td><td>7</td><td>4</td></tr><tr><td>+</td><td>6</td><td>4</td><td>1</td><td>6</td></tr><tr><td></td><td>9</td><td>2</td><td>9</td><td>0</td></tr></table></td></tr>
<tr><td>6</td><td>Times tables (arrays) – what are they?</td><td>2 x 5 = 10
 
5 x 2 = 10
  </td></tr>
</table>

	7	3x tables, including **multiplying by 0**	3x table song https://youtu.be/QYiK5a40z_8 4 x 0 = 0 9 x 0 = 0
		Half term	
	1	**Column addition** recap, then **column subtraction**	 **Link for teaching below:** https://www.loom.com/share/c8e7b8ca60f44389b973982ae28f5d2c
	2	6x table, including **multiplying by 0**	6x table song https://youtu.be/aXITg56os1o
	3	**Column addition**, including decimals (move onto regrouping)	37.4 + 41.3 = 78.7 
	4	3x,6x recap, then 8x table	3x table song https://youtu.be/QYiK5a40z_8 6x table song https://youtu.be/aXITg56os1o 8x table song https://youtu.be/yGeJKWQ_e2Y
	5	**Column subtraction**, including decimals	87.4 – 41.3 = 46.1 

	6	Times table and **division fact** link, including **dividing by 1**	4 x 7 = 28 28 ÷ 7 = 4 28 ÷ 4 = 7 43 ÷ 1 = 43
	7	Times table games	Flashcards, Hit the Button, 1 Minute Maths app, TTRockstars, Beat the Calculator, etc.

Year 4 FF Spring MTP

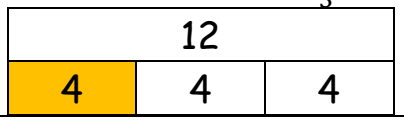
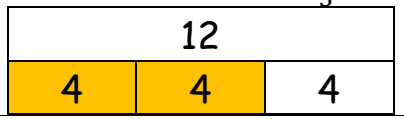
	Week	Objective	Example Qs
Spring	1	**Column addition and subtraction** recap, including decimals Introduce inverse operations to check answer	87.4 – 41.3 = 46.1 T O • Tths 8 7 • 4 - 4 1 • 3 4 6 • 1
	2	7x table	7x table song https://youtu.be/hsM4FRWJ5yI
	3	**Commutativity** and times table/**array** revision	 2 x 5 = 10 5 x 2 = 10
	4	**Commutativity** and **multiplying together 3 numbers**	3 x 6 x 5 = 2 x 10 x 4 =
	5	**Column addition and subtraction** recap	87.3 – 47.4 = 39.9 T O • Tths 7 8 16 7 • 1 3 - 4 7 • 4 3 9 • 9

	6	Dividing by 10 or 100	34 ÷ 100 = 0.34 T | O | Tths | Hths 3 | 4 | 0 | 0 0 | 0 | 3 | 4
	Half term		
	1	Column addition and subtraction recap	Th H T O 2 3 7 4 + 6 4 1 3 8 7 8 7
	2	Times table recap, then 9x table	9x table song https://youtu.be/dEogUYtuiBg
	3	Column multiplication (2 digit and 3 digit by 1 digit)	T O 2 3 x 4 9 2 20 x 3 Use 2 x 3 to help 
	4	Add fractions with the same denominator, move onto subtract	$\frac{1}{6} + \frac{2}{6} = \frac{3}{6}$ $\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$
	5	11x table and times table revision	11 x 4 = 44 121 ÷ 11 = 11

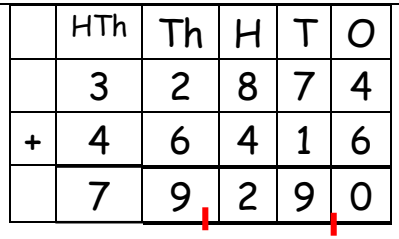
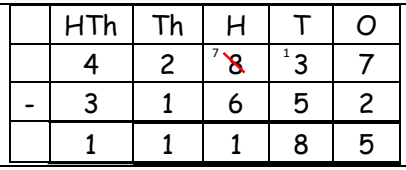
	6	12x table (x10 and add 2 multiple strategy can be taught here if recall is tough)	12 x 4 = 48 84 ÷ 12 = 7

Year 4 FF Summer MTP

<table>
<tr><th></th><th>Week</th><th>Objective</th><th>Example Qs</th></tr>
<tr><td rowspan="11">Summer</td><td>1</td><td>Column addition and subtraction recap</td><td>87.3 – 47.4 = 39.9
<table><tr><td></td><td>T</td><td>O</td><td>Tths</td></tr><tr><td></td><td>7 8</td><td>16 7</td><td>1 3</td></tr><tr><td>-</td><td>4</td><td>7</td><td>4</td></tr><tr><td></td><td>3</td><td>9</td><td>9</td></tr></table></td></tr>
<tr><td>2</td><td>Column multiplication recap</td><td><table><tr><td></td><td>T</td><td>O</td></tr><tr><td></td><td>2</td><td>3</td></tr><tr><td>x</td><td></td><td>4</td></tr><tr><td></td><td>9</td><td>2</td></tr></table></td></tr>
<tr><td>3</td><td>12x table (x10 and add 2 multiple strategy can be taught here if recall is tough)</td><td>12 x 4 = 48
84 ÷ 12 = 7</td></tr>
<tr><td>4</td><td rowspan="3">Times table revision</td><td rowspan="3">Children to become more accustomed to multiplication check – link is below
https://www.timestables.co.uk/multiplication-tables-check/</td></tr>
<tr><td>5</td></tr>
<tr><td>6</td></tr>
<tr><td colspan="3">Half term</td></tr>
<tr><td>1</td><td rowspan="2">Times table revision</td><td rowspan="2">Children to become more accustomed to multiplication check – link is below
https://www.timestables.co.uk/multiplication-tables-check/</td></tr>
<tr><td>2</td></tr>
<tr><td>3</td><td>Column multiplication (2 digit and 3 digit by 1 digit)</td><td><table><tr><td></td><td>H</td><td>T</td><td>O</td></tr><tr><td></td><td>3</td><td>2</td><td>3</td></tr><tr><td>x</td><td></td><td></td><td>4</td></tr><tr><td>1</td><td>2</td><td>9</td><td>2</td></tr></table></td></tr>
</table>

	4	Add and subtract fractions with the same denominator	$\frac{1}{6} + \frac{2}{6} = \frac{3}{6}$ $\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$
	5	Unit fractions of an amount (e.g. 1/3 of 15)	$\frac{1}{3}$ of 12 = 4 
	6	Non-unit fractions of an amount (e.g. 2/3 of 15)	$\frac{2}{3}$ of 12 = 8 

Year 5 Arithmetic Objectives (including recap objectives)

	Objective	Example Qs
Addition and subtraction	Place value addition	2000 + 300 + 60 + 1 = 2361 3937 = 3000 + ____ + 30 + 7 10 480 = 10 000 + ___ + 80
	Column addition (including decimals)	
	Column subtraction (including decimals)	
	Know how to answer missing number calculations in addition (understand what each part of the calculation means)	_____ + 1000 = 5438
	Know how to answer missing number calculations in subtraction (understand what each part of the calculation means)	___ - 100 = 1907 ____ = 4982 - 1281

Multiplication and division

multiply numbers up to 4 digits by a one- or two-digit number using a formal written

method, including long multiplication for two-digit numbers

		Th	H	T	O
		7	6	2	3
x					4
	3	0	4	9	2

2 1

		Th	H	T	O
		7	6	2	3
x					4
	3	0	4	9	2

divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context

multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

34 ÷ 100 = 0.34

T	O	Tths	Hths
3	4	0	0
0	0	3	4

recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})

Multiplying by 0 and dividing by 1

342 x 0 = 0
401 x 0 = 0

342 ÷ 1 = 342
401 ÷ 1 = 401

	Multiply 3 one-digit numbers	5 x 7 x 3 =
Fractions	add and subtract fractions with the same denominator and denominators that are multiples of the same number	+ =
	multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	

Year 6 FF MTP

	Week	Objective
Autumn	1	Arithmetic test (baseline)
	2	Column addition
	3	Column subtraction
	4	Multiplying and dividing by 10,100,1000
	5	% of an amount (finding 10% and multiples of 10%)
	6	Short multiplication and short division
	7	Assortment of questions covered that half term
	Half term	
	1	Column subtract & recap of addition
	2	Long multiplication
	3	% of an amount recap and % of an amount using long multiplication
	4	Long division
	5	Multiplying and dividing fractions
	6	Adding and subtracting fractions
	7	Assortment of questions covered that half term

Year 6 FF MTP

	Week	Objective
Spring	1	Arithmetic test
	2	Objective based on assessment in week 1
	3	Fraction 4OPS
	4	Column addition and subtraction, including missing digit numbers
	5	% of an amount
	6	BODMAS
	Half term	
	1	BODMAS revision
	2	Long multiplication and mental multiplication (e.g. 20 x 400 = 8000)
	3	SATS paper revision, including paired papers.
	4	
	5	
	6	

Curriculum Impact:

Learning

Our maths curriculum is designed to cultivate a profound impact on children's mathematical journey, ensuring they acquire not only awareness but also automaticity in mathematical facts and their practical application. Through systematic learning experiences, pupils develop a deep understanding and strong foundational knowledge in each maths strand. This foundation serves as the bedrock upon which they build their mathematical proficiency, empowering them with a robust arithmetic skill set essential for tackling complex problems.

Moreover, our curriculum fosters adaptive thinking and reasoning skills, enabling children to utilise their knowledge flexibly in diverse problem-solving scenarios. By encouraging exploration and experimentation, our children learn to approach challenges with confidence and creativity, honing their ability to devise innovative solutions. As they progress through their learning journey, culminating at the end of Key Stage 2, pupils emerge equipped with a solid base of mathematics that prepares them for the transition to high school and beyond.

Ultimately, our maths curriculum aims to empower children with the essential skills and knowledge they need to thrive in an increasingly complex world. By instilling a deep-rooted understanding, fostering critical thinking, and nurturing problem-solving abilities, we ensure that pupils are well-prepared for the challenges and opportunities that lie ahead in their academic and personal lives.

Assessment

At the end of each unit in our maths curriculum, we employ end of unit assessments to gauge the extent of children's retained knowledge, as well as their proficiency in applying and reasoning during problem-solving tasks. These end-of-unit tests serve as valuable checkpoints, allowing us to identify areas where children may require additional support or revisit content to ensure they "know more and remember more." Following these assessments, the subsequent lesson, aptly termed the 'follow-up lesson,' is dedicated to revisiting any concepts or skills that children may have struggled to grasp fully. This iterative approach not only reinforces learning but also addresses any gaps, fostering a more thorough understanding and retention of mathematical concepts.

Additionally, our end-of-term assessments provide a holistic overview of children's learning and problem-solving abilities, offering valuable insights that inform future teaching strategies for the subsequent term. By analysing the results of these assessments, we can tailor our teaching approaches to address specific areas of need and adapt our curriculum to ensure optimal progression for all children. Furthermore, these assessments play a pivotal role in identifying pupils who may benefit from targeted interventions or pre-teaching initiatives, enabling us to provide personalised support and ensure every child reaches their full potential in mathematics.

Progression

EYFS – Early Learning Goals (ELG)

Place Value

	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value: Counting	• develop fast recognition of up to 3 objects, without having to count them individually ('subsidising') • recite numbers past 5 • say one number for each item in order: 1, 2, 3, 4, 5 • know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principal')	• count objects, actions and sounds, up to 10 • subitise with patterns, 5 and 10 frames, dots on dice, fingers, etc (up to 10) • count beyond ten • have a deep understanding of number to 10, including the composition of each number • subitise (recognise quantities without counting) up to 5 • verbally count beyond 20, recognising the pattern of the counting system	• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • count numbers to 100 in numerals; count in multiples of twos, fives and tens	• count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward	• count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number	• count in multiples of 6, 7, 9, 25 and 1000 • count backwards through zero to include negative numbers	• count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000 • count forwards and backwards with positive and negative whole numbers, including through zero	

Place Value

	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value: Represent	• show 'finger numbers' up to 5 • experiment with their own symbols and marks as well as numerals • link numerals and amounts [for example, showing the right number of objects to match the numeral, up to 5]	• link the number symbol (numeral) with its cardinal number value, up to 10	• identify and represent numbers using objects and pictorial representations • read and write numbers to 100 in numerals • read and write numbers from 1 to 20 in numerals and words	• read and write numbers to at least 100 in numerals and in words • identify, represent and estimate numbers using different representations, including the number line	• read and write numbers to at least 1000 in numerals and in words • identify, represent and estimate numbers using different representations	• identify, represent and estimate numbers using different representations • read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	• read, write (order and compare) numbers to at least 1,000,000 and determine the value of each digit • read Roman numerals to 1000 (M) and recognise years written in Roman numerals	• read, write (order and compare) numbers to at least 10,000,000 and determine the value of each digit
Place Value: Use PV and Compare	• compare quantities using language: 'more than', 'fewer than'	• compare numbers using vocabulary: 'more than', 'less than', 'fewer', 'the same as', 'equal to' • understand the 'one more than/one less than' relationship between consecutive numbers • Compare quantities up to 10	• given a number, identify one more and one less	• recognise the place value of each digit in a two-digit number • compare and order numbers from 0 up to 100; use <, > and = signs	• recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000	• find 1000 more or less than a given number • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, ones) • order and compare numbers beyond 1000	• (read, write) order and compare numbers to at least 1,000,000 and determine the value of each digit	• (read, write) order and compare numbers to at least 10,000,000 and determine the value of each digit

		in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity						

Place Value								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value: Problem & Rounding				• use place value and number facts to solve problems	• solve number problems and practical problems involving these ideas	• round any number to the nearest 10, 100 or 1000 • solve number and practical problems that involve all of the above with increasingly large positive numbers	• interpret negative numbers in context • round any number up to 1,000,000 to the nearest 10, 100, 1000, 10 000 and 100 000 • solve number and practical problems that involve all of the above	• round any whole number to a required degree of accuracy • use negative numbers in context, and calculate intervals across zero • solve number and practical problems that involve all of the above

Addition & Subtraction

	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Recall, Represent, Use		• explore the composition of numbers to 10 • automatically recall number bonds for numbers 0–10 • automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts	• read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs • represent and use number bonds and related subtraction facts within 20	• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • show the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	• estimate the answer to the calculation and use inverse operations to check answers	• estimate and use inverse operations to check answers to a calculation	• use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	

Addition & Subtraction

	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Calculations			• add and subtract one-digit and two-digit numbers to 20, including zero	• add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ➢ a two-digit number and ones ➢ a two-digit number and tens ➢ two two-digit numbers ➢ adding three one-digit numbers	• add and subtract numbers mentally, including: ➢ a three-digit number and ones ➢ a three-digit number and tens ➢ a three-digit number and hundreds • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	• add and subtract numbers with up to 4 digits using formal written methods of columnar addition and subtraction where appropriate	• add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers	• perform mental calculations, including with mixed operations and large numbers • use their knowledge of the order of operations to carry out calculations involving the four operations

Addition & Subtraction

	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Solve Problems	• solve real world mathematical problems with numbers up to 5	• solve real world mathematical problems with numbers up to 10	• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9	• solve problems with addition and subtraction: ➢ using concrete objects and pictorial representations, including those involving numbers, quantities and measures ➢ applying their increasing knowledge of mental and written methods	• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	• solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	• solve addition and subtraction multi-step problems and contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equal sign	• solve addition and subtraction multi-step problems and contexts, deciding which operations and methods to use and why

Multiplication & Division								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Recall, Represent, Use		• explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally	• count in 2s, 5s and 10s up to 100	• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • show that multiplication of two numbers can be done in any order (commutative) and division of one number by any other cannot	• recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	• recall multiplication and division facts for multiplication tables up to 12 x 12 • use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers • recognise and use factor pairs and commutativity in mental calculations	• identify multiples and factors, including finding all factor pairs of a numbers, and common factors of two numbers • know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • establish whether a number up to 100 is prime and recall prime numbers up to 19 • recognise and use square numbers and	• identify common factors, common multiples and prime numbers • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

							cube numbers, and the notation for squared (^{2}) and cubed (^{3})	

Multiplication & Division								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Calculations				• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	• write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	• multiply two-digit and three-digit numbers by a one-digit number using formal written layout	• multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • multiply and divide numbers mentally drawing upon known facts • divide numbers up to 4 digits by a one-digit number using the	• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as

							formal written method of short division and interpret remainders appropriately for the context • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	appropriate for the context • divide numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • perform mental calculations, including with mixed operations and large numbers

Multiplication & Division								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division:			• solve one-step problems involving multiplication and division, by calculating the answer using concrete	• solve problems using multiplication and division, using materials, arrays, repeated addition, mental methods and	• solve problems, including missing number problems, involving multiplication and division, including positive	• solve problems involving multiplying and adding, including using the distributive law to multiply two numbers by one	• solve problems involving multiplication and division including using their knowledge of factors and multiples,	• solve problems involving addition, subtraction, multiplication and division

			objects, pictorial representations and arrays with the support of the teacher	multiplication and division facts, including problems in contexts	integer scaling problems and correspondence problems in which n objects are connected to m objects	digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	squares and cubes • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	
Multiplication & Division: Combined Operations							• solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equal sign	• use their knowledge of the order of operations to carry out calculations involving the four operations

Fractions, Decimals & Percentages

	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Recognise and Write			• recognise, find and name a half as one of two equal parts of an object, shape or quantity • recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	• recognise, find, name and write fractions $^{1}/_{3}$, $\frac{1}{4}$, $^{2}/_{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity	• count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and dividing one-digit numbers or quantities by 10 • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	• count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	• identify, name and write equivalent fractions of a give fraction, represented visually, including tenths and hundredths • recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example, $^{2}/_{5} + {}^{4}/_{5} = {}^{6}/_{5} = 1\,{}^{1}/_{5}$]	
Fractions: Compare				• recognise the equivalence of $^{2}/_{4}$ and $\frac{1}{2}$	• recognise and show, using diagrams, equivalent fractions with	• recognise and show, using diagrams, families of common	• compare and order fractions whose denominators are all multiples	• use common factors to simplify fractions; use common multiples to

					small denominators • compare and order unit fractions, and fractions with the same denominators	equivalent fractions	of the same number	express fractions in the same denomination • compare and order fractions, including fractions >1

Fractions, Decimals & Percentages								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Calculations				• write simple fractions for example, ½ of 6 = 3	• add and subtract fractions with the same denominator within one whole [for example, $^{5}/_{7} + {}^{1}/_{7} = {}^{6}/_{7}$]	• add and subtract fractions with the same denominator	• add and subtract fractions with the same denominator and denominators that are multiples of the same number • multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	• add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ¼ x ½ = $^{1}/_{8}$]

								• divide proper fractions by whole numbers [for example, $^1/_3 \div 2 = {}^1/_6$]
Fractions: Solve Problems					• solve problems that involve all of the above	• solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number		

Fractions, Decimals & Percentages								
	EYFS		**KS1**		**KS2**			
	3-4 Years	**Reception**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Decimals: Recognise and						• recognise and write decimal equivalents of any number of tenths or hundredths • recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	• read and write decimal numbers as fractions [for example, 0.71 = $^{71}/_{100}$] • recognise and use thousandths and relate them to tenths, hundredths and	• identify the value of each digit in numbers given to three decimal places

							decimal equivalents	
Decimals: Compare						• round decimals with one decimal place to the nearest whole number • compare numbers with the same number of decimal places up to two decimal places	• round decimals with two decimal places to the nearest whole number and to one decimal place • read, write order and compare numbers with up to three decimal places	

Fractions, Decimals & Percentages								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Decimals: Calculations and						• find the effect of dividing a one- of two-digit number by 10 and 100, identifying the value of digits in the answer as ones, tenths and hundredths	• solve problems involving number up to three decimal places	• multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • multiply one-digit numbers with up to two

								decimal places by whole numbers • use written division methods in cases where the answer has up to two decimal places • solve problems which require answers to be rounded to specified degrees of accuracy

Fractions, Decimals & Percentages								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions, Decimals and Percentages						• solve simple measure and money problems involving fractions and decimals to two decimal places	• recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred', and write percentages as a fraction with denominator	• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $^{3}/_{8}$] • recall and use equivalences

							100, and as a decimal • solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $^{1}/_{5}$, $^{2}/_{5}$, $^{4}/_{5}$ and those fractions with a denominator of a multiple of 10 or 25	between simple fractions, decimals and percentages, including in different contexts

Ratio & Proportion								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Ratio and Proportion								• solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • solve problems involving the

								calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison • solve problems involving similar shapes where the scale factor is known or can be found • solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

Algebra								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Algebra			• solve one-step problems that involve addition and subtraction, using concrete objects and	• recognise and use the inverse relationship between addition and subtraction and use this to	• solve problems, including missing number problems			• use simple formulae • generate and describe linear number sequences

			pictorial representations, and missing number problems such as 7 = □ - 9	check calculations and solve missing number problems.				• express missing number problems algebraically • find pairs of numbers that satisfy an equation with two unknowns • enumerate possibilities of combinations of two variables

Note – although algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1/2/3

Measurement								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Using Measures	• make comparisons between objects relating to size, length, weight and capacity	• compare length, weight and capacity by making predictions and using vocabulary 'than' [for example, "This is heavier than that."]	• compare, describe and solve practical problems for: ➢ lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] ➢ mass/weight [for example, heavy/light, heavier/lighter, lighter than] ➢ capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] ➢ time [for example, quicker, slower, earlier, later]	• choose and use appropriate standard units to estimate and measure length/height in any direction (m, cm); mass (kg/g); temperature (°C); capacity (litres, ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and order lengths, mass, volume/capacity and record the results using >, < and =	• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	• Convert between different units of measure [for example, kilometre to metre; hour to minute] • estimate, compare and calculate different measures	• convert between different units of metric measure (for example, kilometre and metre; centimetre and metre, centimetre and millimetre; gram and kilogram; litre and millilitre) • understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	• solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to

			• measure and begin to record the following: ➢ lengths and heights ➢ mass/weight ➢ capacity and volume ➢ time (hours, minutes, seconds)				• use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	three decimal places • convert between miles and kilometres

Measurement								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Money			• recognise and know the value of different denominations of coins and notes	• recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • find different combinations of coins that equal the same amounts of money • solve simple problems in a practical context involving	• add and subtract amounts of money to give changes, using both £ and p in practical contexts	• estimate, compare and calculate different measures, including money in pounds and pence	• use all four operations to solve problems involving measure [for example, money]	

				addition and subtraction of money of the same unit, including giving change				

Measurement								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Time	• begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'		• sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • recognise and use language relating to dates, including days of the week, weeks, months and years	• compare and sequence intervals of time • tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times • know the number of minutes in an hour and the number of hours in a day	• tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks • estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning,	• read, write and convert time between analogue and digital 12- and 24- hour clocks • solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	• solve problems involving converting between units of time	• use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa

			• tell the time to the hour and half past the hour and draw the hands on a clock face to show these times		afternoon, noon and midnight • know the number of seconds in a minute and the number of days in each month, year and leap year • compare durations of events [for example to calculate the time taken by particular events or tasks]			

Measurement								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Perimeter, Area,					• measure the perimeter of simple 2-D shapes	• measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear	• measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of	• recognise that shapes with the same areas can have different perimeters and vice versa • recognise when it is possible to use formulae for area and volume of shapes

						shapes by counting squares	rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes • estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]	• calculate the area of parallelograms and triangles • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]

Geometry								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: 2-D Shapes	• talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.	• select, rotate and manipulate shapes in order to develop spatial reasoning skills • compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can	• recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]	• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D shapes and	• draw 2-D shapes	• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • identify lines of symmetry in 2-D shapes presented in different orientations	• distinguish between regular and irregular polygons based on reasoning about equal sides and angles • use the properties of rectangles to deduce related facts and find missing lengths and angles	• draw 2-D shapes using given dimensions and angles • compare and classify geometric shapes based on their properties and sizes • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius

				everyday objects				
Geometry: 3-D Shapes	• select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. • combine shapes to make new ones - an arch, a bigger triangle etc.	• select, rotate and manipulate shapes in order to develop spatial reasoning skills	• recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]	• recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] • compare and sort common 3-D shapes and everyday objects	• make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them		• identify 3-D shapes, including cubes and other cuboids, from 2-D representations	• recognise, describe and build simple 3-D shapes, including making nets

Geometry								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry:					• recognise angles as a property of shape of a	• identify acute and obtuse angles and compare and	• know angles are measure in degrees: estimate and	• find unknown angles in any triangles, quadrilaterals,

					description of a turn • identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle • identify horizontal and vertical lines and pairs of perpendicular and parallel lines	order angles up to two right angles by size • identify lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric figure with respect to a specific line of symmetry	compare acute, obtuse and reflex angles • draw given angles, and measure them in degrees • identify: ➢ angles at a point and one whole turn (total 360°) ➢ angles at a point on a straight line and ½ a turn (total 180°) ➢ other multiples of 90°	and regular polygons • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

Geometry								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

Geometry: Position & Direction	• understand position through words alone – for example, "The bag is under the table," – with no pointing • describe a familiar route • discuss routes and locations, using words like 'in front of' and 'behind' • talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc. • extend and create ABAB patterns – stick, leaf, stick, leaf • notice and correct an error in a repeating pattern	• continue, copy and create repeating patterns [including AB, ABB and ABBC]	• describe position, direction and movement, including whole, half, quarter and three-quarter turns	• order and arrange combinations of mathematical objects in patterns and sequences • 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)		• describe positions on a 2-D grid as coordinates in the first quadrant • describe movements between positions as translations of a given unit to the left/right and up/down • plot specified points and draw sides to complete a given polygon	• identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	• describe positions on the full coordinate grid (all four quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes

Statistics								
	EYFS		KS1		KS2			
	3-4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Statistics: Present & Interpret				• interpret and construct simple pictograms, tally charts, block diagrams and simple tables	• interpret and present data using bar charts, pictograms and tables	• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	• complete, read and interpret information in tables, including timetables	• interpret and construct pie charts and line graphs and use these to solve problems
Statistics:				• ask and answer simple questions by counting the	• solve one-step and two-step questions [for	• solve comparison sum and different	• solve comparison, sum and difference	• calculate and interpret the

				number of objects in each category and sorting the categories by quantity • ask and answer questions about totalling and comparing categorical data	example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables	problems using information presented in bar charts, pictograms, tables and other graphs	problems using information presented in a line graph	mean as an average