

Long Term Planning for Maths



**Fields Multi Academy
Trust**

Reception

	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
Subitising	<ul style="list-style-type: none"> identify when a set can be subitised and when counting is needed. subitise different arrangements, both unstructured and structured. make different arrangements of numbers within 5 and talk about what they can see. 	<ul style="list-style-type: none"> develop subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals. begin to identify missing parts for numbers within 5. explore the structure of the numbers 6 and 7 as '5 and a bit' 	<ul style="list-style-type: none"> identify when sets can be subitised and when counting is necessary. explore representations of numbers and parts of numbers within 10.
Cardinality, ordinality and counting	<ul style="list-style-type: none"> explore different ways of representing numbers on their fingers. secure 1: 1 correspondence when counting. develop counting skills and knowledge to include that the last number counted is 'how many'. 	<ul style="list-style-type: none"> develop understanding of the counting sequence through cardinality. order numbers within 10. Join in verbal counting beyond 20. 	<ul style="list-style-type: none"> develop counting skills, counting larger sets as well as counting actions and sounds.
Composition	<ul style="list-style-type: none"> begin to recognise that when counting, each number is made of one more than the previous number. begin to develop the language of 'whole' when talking about objects which have parts 	<ul style="list-style-type: none"> recognise two equal groups as double within 5. sort odd and even numbers within 5 and then 10 by making patterns and shapes. 	<ul style="list-style-type: none"> arrange doubles using 10 frames and fingers. develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2.
Comparison	<ul style="list-style-type: none"> compare sets of objects by matching pictures or similar items. 	<ul style="list-style-type: none"> compare numbers as equal or unequal groups 	<ul style="list-style-type: none"> compare quantities and numbers, including sets of objects which have different attributes
Shape, space and pattern	<ul style="list-style-type: none"> recognise simple 2D shapes create ABC or ABB patterns. Use simple comparative language. 	<ul style="list-style-type: none"> talk about what is the same and different in sets of shapes create and repeat ABC, ABB and ABBC patterns describe using comparative language 	<ul style="list-style-type: none"> Describe simple features of common shapes. Continuing, making or identifying errors in repeated patterns

Year 1 long term maths plan

<u>Ongoing coverage</u>		
<ul style="list-style-type: none"> • Mastering Number daily session • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • Recognise and use language relating to dates, including days of the week, weeks, months and years • Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times • National Curriculum statements focused on measure should be linked to all aspects of calculation through the year. 		
<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
Composition of numbers 0 – 5 NCETM 1.3 Composition of numbers 6 -10 NCETM 1.4	Addition and subtraction within 10 NCETM 1.7	Composition of numbers 20 -100 NCETM 1.9
Aggregation (combining two or more parts) and partitioning NCETM 1.5 Pictograms and block graphs	Composition of multiples of 10 NCETM 1.8	Composition of numbers 11-19 NCETM 1.10
Recognise and name 2D shape	Counting in 10s NCETM 2.1 TP1	Time
Counting in 2s NCETM 2.1	Counting, unitising and coins NCETM 2.1	Finding $\frac{1}{2}$ and $\frac{1}{4}$ of sets of objects, shapes or sets
Augmentation and reduction NCETM 1.6	Recognising 'half'	Position and direction related to turns
3D shape		

Year 2 long term maths plan

Ongoing coverage		
<ul style="list-style-type: none"> Mastering Number daily session Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward 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 Relevant aspects of measure conversion which link to calculation. 		
Autumn	Spring	Summer
Addition and subtraction and bridging 10 NCETM 1.11	Addition and subtraction of 2-digit numbers and ones NCETM 1.13	Addition of 2-digit numbers and 2-digit numbers NCETM 1.15
		Using coins
Subtraction as difference NCETM 1.12	Addition and subtraction of 2-digit numbers and multiples of 10 NCETM 1.14	Subtraction of 2-digit numbers from 2 digit numbers NCETM 1.16
Recognise and name 2D shape	Multiples of 10 NCETM 2.4 TP1	Using coins and money
Whole and part NCETM 3.1 TP 1	Multiples of 10 and 5 Multiplying by 0 NCETM 2.4 TP 2-4	Quotitive and partitive division NCETM 2.6
Recognising equal groups (fractions) NCETM 2.2	Doubling and halving (fractions) NCETM 2.5	Parts and wholes (fractions) NCETM 3.1 TP 2
Groups of 2 and commutativity NCETM 2,3	Bar modelling for common fractions.	Position and direction
3D shape		

Year 3 long term maths plan

<u>Ongoing coverage</u>		
<ul style="list-style-type: none"> Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number 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, am/pm, 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] Relevant aspects of measure conversion which link to calculation. 		
<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
Composition of numbers to 100 Bridging 100 NCETM 1.17	Composition and calculation of 3-digit numbers NCETM 1.18 TP 4-6	Column addition NCETM 1.20
Composition and calculation of 3-digit numbers NCETM 1.18 TP 1-3	Mental strategies to 999 NCETM 1.19	Drawing 2D shapes Parallel and perpendicular lines
		Column subtraction NCETM 1.21
Links between the 2, 4 and 8 times tables NCETM 2.7 Multiplying using known facts	Links between the 3 and 6 times tables NCETM 2.8 Multiplying by combining known facts	9x tables (linking to 3 and 6 from previous term) NCETM 2.8
		7x tables NCETM 2.9
Division using known facts	Division using known facts	Direction and position
Unit fractions NCETM 3.2	Unit fractions and fractions as numbers; comparing fractions NCETM 3.3	Addition and subtraction of fraction within 1 NCETM 3.4
Angles		

Year 4 long term maths plan

Ongoing coverage		
<ul style="list-style-type: none"> Mastering Number daily session Count in multiples of 6, 7, 9, 25 and 1,000 Count backwards through 0 to include negative numbers 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 Recall and use tables facts to 12 x 12 All additional National Curriculum Statements should be covered to as part of calculation work. 		
<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
Composition and calculation of numbers to 1000 NCETM 1.22	Multiplying and dividing by 10 and 100 NCETM 2.13	Composition and calculation of hundredths and thousandths NCETM 1.24
	Composition and calculation of 10ths NCETM 1.23	Lines of symmetry
		Addition and subtraction of money NCETM 1.25
The distributive law (partitioning to multiply) NCETM 2.10	Partitioning leading to short multiplication NCETM 2.14	Area and perimeter NCETM 2.16
Multiplying by 11 and 12 NCETM 2.11	Area through counting squares	Scaling to multiply NCETM 2.17
Division with remainders NCETM 2.12	Short division NCETM 2.15	Direction and position
Extending fractions across 1 NCETM 3.5	Working across the whole when adding or subtracting fractions NCETM 3.5	Multiplying fractions and ones NCETM 3.6
Recognising and naming angles		

Year 5 long term maths plan

Ongoing coverage		
<ul style="list-style-type: none"> Mastering Number daily session Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre] Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals All additional National Curriculum Statements should be covered to as part of calculation work. 		
<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
Composition and calculation of numbers from 1000 to 1 million NCETM 1.26	Common structures and the part-whole relationship for addition and subtraction NCETM 1.28	Using equivalence and compensation NCETM 1.29
Interpreting negative numbers NCETM 1.27	Shape, position and geometry Coordinates (consolidating NCETM 1.27)	
Using equivalence to calculate (x) NCETM 2.18	Multiplying and dividing decimals and whole numbers NCETM 2.19	Factors, multiples and primes NCETM 2.21
Short multiplication for calculating	3 factors and volume NCETM 2.20	Combining multiplication with addition and subtraction NCETM 2.22
Angles and measuring of angles		
Using equivalence to calculate (÷) NCETM 2.18	Division using mental and written methods	Division using mental and written methods
Division using short division	Equivalent fractions and simplification of fractions NCETM 3.7	Common denomination; fraction addition and subtraction NCETM 3.8
Ordering, calculating and comparing of fractions		

Year 6 long term maths plan

<u>Ongoing coverage</u>		
<ul style="list-style-type: none"> • Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit • Perform mental calculations, including with mixed operations and large numbers • Any National Curriculum statements regarding measure should be linked to calculation as often as possible. 		
<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
Composition and calculation of numbers to 10 million NCETM 1.30	Using mental and written addition strategies in different contexts.	SATs preparation
Interpreting negative numbers		
Strategies for multiplying larger numbers including short and long multiplication NCETM 2.23	Multiplication involving whole and decimal numbers	
Angles and measuring of angles Deducing missing angles	Scale factors, ratio and proportional reasoning NCETM 2.27	
	Shape and geometry	
Division using short division (revision)	Combining division with addition and subtraction NCETM 2.28	Problems with two unknowns NCETM 1.31
Division by 2-digit divisors NCETM unit 2.24	Fractions, decimals and percentages	Area and perimeter 2 NCETM 2.30

All units are supported with links to the NCETM Professional Development Materials (References to which are in red)