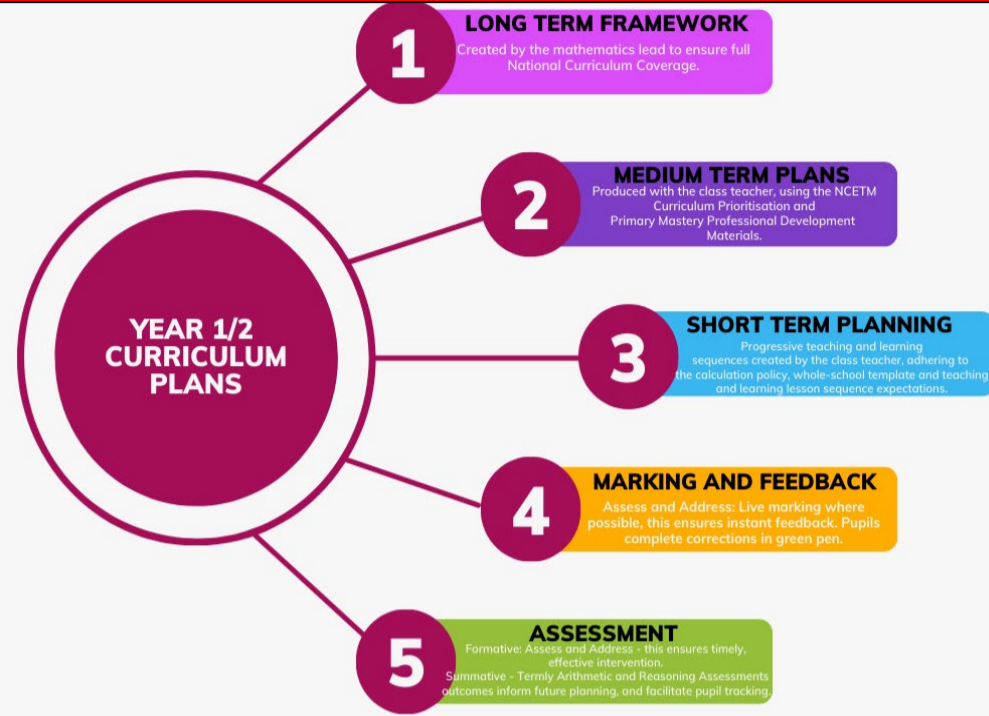


INTENT

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources

At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1 (National Curriculum 2014).

IMPLEMENTATION



YEAR 1/2 ESSENTIAL KNOWLEDGE

YEAR 1/2 NATIONAL CURRICULUM COVERAGE LONG TERM FRAMEWORK

YEAR 1/2 FLUENCY LADDER

Brougham Primary School							
Year 1/2 Long Term Framework							
o14 Week Term (11 weeks of planning before data collection)							
Autumn	Y1 NCETM Comparison of quantities and part-whole relationships (includes measure) (2 weeks)	Y1 NCETM Numbers 0-10 (2 weeks)	Y1 NCETM Additive Structures (2 weeks)	Y1 NCETM Addition and subtraction facts within 10 Y1 NCETM Fluently add and subtract within 10 (3 weeks)	Y1 NCETM Recognising, composing, decompose and manipulate 2D and 3D shapes Y2 NCETM Shape (1 objective) (2 weeks)	Y1 NCETM: Numbers 0-20 (includes measure and +/- facts within 20) (1 of 3 weeks)	Assessment Week (1 week) Christmas Maths (1 week)
11 Week Term (9 weeks planning before data collection)							
Spring	Y2 NCETM Numbers 0-20 (includes measure and +/- facts within 20) (2 of 3 weeks)	Y2 NCETM Calculations within 20, including statistics (2 weeks)	Y2 NCETM Addition and subtraction of two 2-digit numbers (2 weeks)	Y1 NCETM Unitising and Coin Recognition (NCETM multiplication and division, counting in 2, 5 and 10) (1 of 3 weeks)	Y2 NCETM Money (1 week)	Assessment Week (1 week)	Length, Mass & Capacity (2 weeks)
13 Week Term (10 weeks planning before data collection)							
Summer	Y1 NCETM Numbers 0-50 (1 week)	Y2 NCETM Numbers 10 to 100 (1 week)	Y1 Fractions (2 weeks)	Y1 NCETM Unitising and Coin Recognition (Focus on multiplication and division, counting in 2, 5 and 10) (remaining 2 of 3 weeks)	Y2 NCETM Introduction to Multiplication (2 weeks)	Y2 NCETM Introduction to division structures (2 weeks)	NCETM Position and Direction (1 week) Assessment Week (1 week) NCETM Time (1 week)

Fluency Training Ladder Year 1/2	
Week	Fluency Facts to learn
39	Counting in twos, fives and tens from different multiples
38	Counting in tens from different multiples
37	Counting in tens from different multiples
36	Counting in tens from zero
35	Counting in tens from zero
34	Counting in fives from different multiples
33	Counting in fives from different multiples
32	Counting in fives from zero
31	Counting in fives from zero
30	Counting in twos from different multiples
29	Counting in twos from different multiples
28	Counting in twos from zero
27	Counting in twos from zero
26	Composition: Recall the composition of the numbers 6, 7, 8 and 9.
25	Number facts and arithmetic: Reading, interpreting and writing addition equations
24	Number facts and arithmetic: Reading and writing expressions and equations to represent familiar number bonds within 10
23	Counting, ordinality and cardinality: Comparing numbers 10-15
22	Composition: Numbers 11-15
21	Number facts and arithmetic: Subtraction from the odd numbers 5, 7 and 9
20	Number facts and arithmetic: Subtraction from the even numbers 6, 8 and 10
19	Number facts and arithmetic: Adding or subtracting 2 to or from a number within 10
18	Number facts and arithmetic: Adding or subtracting 1 to or from a number within 10
17	Composition: Partitioning of 6
16	Composition: Partitioning and recombining numbers within 10
15	Composition: Part-whole numbers within 10
14	Composition: Composition of odd and even numbers within 10
13	Composition: Composition of 9
12	Composition: Composition of 7
11	Counting, ordinality and cardinality: Ordinality
10	Composition: 'Ten-ness of 10'
9	Composition: Composition of 8
8	Composition: Composition of 6
7	Composition: Odd and even numbers
6	Composition: Doubles to 5
5	Counting, ordinality and cardinality: Ordinality
4	Comparison: Comparing the numbers of objects in 2 sets
3	Composition: Composition of 6, 7, 8 and 9
2	Composition: Composition of 6, 7, 8 and 9
1	Composition: Composition of 5 and bonds to 5

YEAR 1/2 FLUENCY TRAINING

Pupils access short, daily NCETM Mastering Number sessions, in which they are taught to develop and demonstrate fluent number sense.

Lessons seek to build firm mathematical foundations, through the use of intentional teaching strategies focused on developing fluency in calculation and number sense for all children; they use of appropriate manipulatives to support your teaching of mathematical structures.

Once the 26-week programme has been completed, pupils receive a weekly fluency training lesson focussed upon the remaining steps of the ladder. This is followed by 15 minutes daily independent fluency training each day.

YEAR 1/2 KEY INSTANT RECALL FACTS

0	0+0=0	1+0=1	2+0=2	3+0=3	4+0=4	5+0=5	6+0=6	7+0=7	8+0=8	9+0=9	10+0=10
1	0+1=1	1+1=2	2+1=3	3+1=4	4+1=5	5+1=6	6+1=7	7+1=8	8+1=9	9+1=10	
2	0+2=2	1+2=3	2+2=4	3+2=5	4+2=6	5+2=7	6+2=8	7+2=9	8+2=10		
3	0+3=3	1+3=4	2+3=5	3+3=6	4+3=7	5+3=8	6+3=9	7+3=10			
4	0+4=4	1+4=5	2+4=6	3+4=7	4+4=8	5+4=9	6+4=10				Addition facts of 10
5	0+5=5	1+5=6	2+5=7	3+5=8	4+5=9	5+5=10					
6	0+6=6	1+6=7	2+6=8	3+6=9	4+6=10						Adding 0
7	0+7=7	1+7=8	2+7=9	3+7=10							
8	0+8=8	1+8=9	2+8=10								Doubles
9	0+9=9	1+9=10									
10	0+10=10										

KIRF Benchmarks for Automaticity are used as part of the termly assessment process for mathematics. The aim is that by the end of the year, the pupil is able to fluently and accurately recall the facts for their year group benchmark - this will aid their mental maths fluency, agility and application when faced with a range of mathematical concepts.

PROGRESSION IN CALCULATION



	Year R	Year 1	Year 2
Addition	Counting a set of objects. Knowing 1 more or 1 less Place numbers in order of size	Combining two parts to make a whole: part-whole model Starting at the bigger number and counting on Regrouping to make 10.	Adding three single digits Partitioning with no regrouping/recombining Column method – no regrouping
Subtraction	One less than / Taking away ones	Taking away ones Counting back Find the difference Part-part Whole Model Part whole model Make 10	Counting back Find the difference Part whole model Make 10 Column method – no regrouping
Multiplication	Doubling	Make, find and see equal groups. Doubling Counting in multiples Repeated addition Arrays- showing commutative multiplication	Doubling Counting in multiples Repeated addition Arrays- showing commutative multiplication
Division	Halving	Sharing objects equally Division as grouping	Division as grouping Division within arrays

YEAR 1/2 CONCRETE RESOURCES

YEAR 1/2 PICTORIAL REPRESENTATIONS

YEAR 1/2 ABSTRACT CALCULATION REPRESENTATIONS

Multilink
Bead string
Rekenrek
Ten Frame
Base 10
Diennes
Numicon
Place Value Counters
Place Value Cards

Part -part whole model
Picture objects
Bar model
Numberline
Tens frame

Horizontal number sentences.

$4 + 3 = 7$

$10 = 6 + 4$

Use the part-part whole diagram as shown above to move into the abstract.

PUPILS WITH SEND

For pupils who are working significantly below age-related expectations, Sandwell Testing is used. This assesses the child's mathematical age and identifies key concepts which the child is not secure in. These key concepts are then identified on a child's Individual Education Plan and provision is put in place for the child to access the wave 3 intervention required.

CELEBRATING SUCCESS

- Weekly Maths Star of the Week is nominated by the class teacher and awarded by the class Maths Ambassador
- Maths Star of the Week is awarded a certificate and the maths bag of activities to take home and share with their family for one week.
- Year 1-2 Maths Ambassadors.

HOME LEARNING

- Low stakes home learning is set weekly. Pupils are provided with a fundamental number facts-based activity, which links to Mastering Number/ the Fluency Ladder and encourages them to practise their fluency skills or number concepts.
- Key Instant Recall Facts are shared with parents in order for them to support their children with learning these facts at home.