BEAMISH PRIMARY SCHOOL

Maths Long Term Plan

School Organisation

Pupils are currently organised within the following classes:

Earth and Mars	Nursery 2 year olds, Nursery 3/4 year olds, Reception
Neptune	Year 1, Year 2, Year 3
Jupiter	Year 4, Year 5, Year 6

EYFS Curriculum

The curriculum across EYFS is planned on a 2 year cycle for nursery and reception. Our curriculum for 2 year olds is bespoke to children's individual needs and follows the EYFS Framework.

Our Early Years Foundation Stage Curriculum supports children's understanding of maths through the planning and teaching of 'Number & Numerical patterns'. Our curriculum for 2-year-olds is bespoke to children's individual needs and follows the EYFS Framework. The curriculum across EYFS is planned on a cycle for nursery and reception.

The staff use their knowledge and expertise to plan for a high-quality learning environment which provides children with lots of opportunities to explore different aspects of number and shape, space and measures and learn new concepts. The children have a wide range of structured play resources available to them throughout the year during "continuous provision". The adults model the use of these resources and the appropriate mathematical language as they support the children in their play.
As with all other Areas of Learning, the teaching and learning of mathematics in our Nursery and Reception classes takes place both indoors and outdoors through a wide range of practical and "hands on" activities.

Our teaching of maths in reception is based on the White Rose curriculum and supplemented through the NCTEM Mastering Number programme. Maths is taught through daily, adult-led focused tasks and enhanced provision areas. Children are given regular opportunities for guided practice and to use and apply their mathematical knowledge through the provision areas. Our aim is to ensure that maths is accessible to all pupils and they leave reception with a solid understanding of the Early Leaning Goals (ELGs) The Early Learning Goals define the level of development children are expected to attain by the end of the Reception year.

KS1 and KS2 Curriculum

At Beamish and Pelton Federation we follow the White Rose Scheme of Learning for Mathematics. Each year group followings the LTPs set out by the White Rose Curriculum. Teachers use these plans, along with the small steps to plan and deliver high quality maths lessons. White Rose Small Steps should be used alongside the National Curriculum objectives for Maths to ensure that lessons are adapted and suitable for individual children. This may mean, adding or removing small steps to ensure children have met the National Curriculum objectives. The number of weeks suggested for each block assumes that one lesson is spent on each small step. However, teachers are expected to use their professional judgement to identify how long is needed on a block to ensure National Curriculum content is secure and coverage spans the whole academic year. Our teaching of maths in Year 1 and Year 2 is based on the White Rose curriculum and is supplemented through the NCTEM Mastering Number programme.

At Beamish Primary School we follow the mastery approach which is defined by five key principles: Representation and Structure, Fluency, Variation, Mathematical Thinking and Coherence. We aim to develop children's mental and written fluency as well as their ability to solve problems. We encourage children to ask critical questions, make links and articulate their reasoning. We aim for the children to see mathematics as being relevant to their world and applicable to everyday life as well as being something that they will need as they move on through their school life and ultimately into the world of employment.

MATHS LONG TERM PLAN – EYFS	
	ELG: Number Children at the expected level of development will: • Have a deep understanding of number to 10, including the composition of each number; • Subitise (recognise quantities without counting) up to 5; • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. **ELG: Numerical Patterns** Children at the expected level of development will: • Verbally count beyond 20, recognising the pattern of the counting system; • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

	MATHS LONG TERM PLAN – WHITE ROSE – NURSERY											
	Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	More than, fewer than, same		Explore & build with shapes & objects		Explore repeats		Hear & say number names		Begin to order number names		Subitising - I see 1, 2, 3	
Spring	Join in with repeats	Explore position & space	Show me 1, 2, 3		Move & label 1,2 3		Explore position & routes	Explore own first patterns		Take & give 1,2, 3	Match, talk, push & pull	
Summer	Talk about dots	Compare & sort collections	Lead own repeats	Start to puzzle	Making patterns together	Make games & actions	Show me 5		My own pattern	Stop 1,2,3,4 5		Match sort & compare

	MATHS LONG TERM PLAN – WHITE ROSE – RECEPTION											
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Getting to know you**		**Match, sort & compare**		**Talk about measure & patterns**		**It's me 1,2, 3**		**Circles & Triangles**	**1, 2, 3, 4, 5**		**Shapes with 4 sides**
Spring	**Alive in 5**		**Mass & capacity**	**Growing 6, 7, 8**		**Length, height & time**	**Building 9 & 10**			**Explore 3D shapes**		
Summer	**To 20 & beyond**		**How many now?**	**Manipulate, compose & decompose**		**Sharing & grouping**	**Visualise, build & map**			**Make connections**		**Consolidation**

	MATHS LONG TERM PLAN –Mastering Number – NCTEM - RECEPTION											
	Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Baseline		Subitising within 3	Counting skills	Explore how all numbers are made of 1s Composition of 3 and 4	Subitise objects & sounds	Comparison of sets - 'just by looking' Language of comparison: more than & fewer than	Counting skills The 'five-ness of 5'using one hand & the die pattern for 5	Comparison of sets - by matching Language of comparison: more than, fewer than, an equal number	Explore the concept of' whole' and 'part'	Composition of 3, 4 and 5	
Spring	Match numerals to quantities within 10 Verbal counting beyond 20	Subitise within 5 focusing on die patterns Match numerals to quantities within 5	Focus on ordinality and the 'staircase' pattern See that each number is one more than the previous number	Focus on 5	Focus on 6 & 7 as '5 and a bit'	Compare sets & use language of comparison: more than, fewer than, an equal number to Make unequal sets equal	Focus on the 'staircase' pattern and ordering numbers	Ordering of numbers to 8 Use language of less than	Focus on 7	Doubles – explore how some numbers can be made with 2 equal parts	Sorting numbers according to attributes - odd & even numbers	
Summer	Counting – larger sets & things that cannot be seen	Subitising – to 6, including in structured arrangements	Composition '5 and a bit'	Composition of 10	Comparison – linked to ordinality Play track games	Consolidation	Subitise to 5 Introduce the rekenrek	<u>Review and assess</u> Automatic recall of bonds to 5	<u>Review and assess</u> Composition of numbers to 10	<u>Review and assess</u> Comparison	<u>Review and assess</u> Number patterns	<u>Review and assess</u> Counting

	MATHS LONG TERM PLAN – WHITE ROSE - YEAR 1/2											
	Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
Autumn	**Place value (within 20)**			**Addition & Subtraction (within 20)**			**Place value (within 100)**				**Shape**	
Spring	**Addition & Subtraction (within 100)**				**Multiplication & division**				**Length & height**		**Statistics**	**Consolidation**
Summer	**Money**		**Fractions**			**Time**			**Mass, capacity & temperature**		**Geometry, Position & direction**	**Consolidation**

	MATHS LONG TERM PLAN - Mastering Number – NCTEM – YEAR 1											
	Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Practise subitising Recap the composition of 5	Composition of 6, 7, 8 and 9 as '5 & a bit'	Composition of 6, 7, 8 & 9 as '5 and a bit'	Compare sets of objects by matching Use the language of comparison: *more than* and *fewer than*	Recap the order of numbers to 10 using the 'staircase' pattern Identify numbers that are '1 more' or '1 less' and apply this to sets of objects	Numbers that can be made with 'doubles' Recap that even numbers can be made with 2 equal parts	Odd and even numbers Even numbers can be composed of 2s, and odd numbers have 'an odd 1'	Composition of 6 Use the 2-by-3 'egg box' pattern and the rekenrek to find all the ways that 6 can be composed	Composition of 8 Use 2-by-4 grid and the rekenrek to find all the ways that 8 can be composed	Composition of 10 Use 2-by-5 grid (10-frame) and the rekenrek to find all the ways that 10 can be composed	Representations of ordinality Compare number tracks and number lines	Consolidation
Spring	Composition of 7 Use the Hungarian number pattern and the rekenrek to find all the ways that 7 can be composed	Composition of 9 Focus on 3-by-3 grid and the rekenrek to find all the ways that 9 can be composed	Recap odd and even numbers by looking at their 'shape' Explore how odd numbers can be composed of 1 odd part and 1 even part, and even numbers can be composed of 2 odd parts or 2 even parts	Explore the concept of part-part-whole, seeing that numbers can be partitioned into parts Use the language of 'whole', 'split' and 'part' alongside the part-part- whole diagram	Continue to explore how numbers can be partitioned Introduce systematic approach to partitioning Represent ways to partition numbers in a 'number house'	Consolidation	Continue to explore systematic partitioning of numbers within 10 Connect 2 equal parts to doubling and halving	Practise applying knowledge of '1 more than' and '1 less than' a number in relation to odd/ even numbers Connect this to *'first, then, now'* stories	Explore the effect of adding or subtracting 2 to odd/ even numbers Apply to *'first, then, now'* stories	Apply knowledge of composition of even numbers to subtract from 6, 8 and 10, for both the partitioning and reduction structures of subtraction	Apply knowledge of composition of odd numbers to subtract from 5, 7 and 9, for both the partitioning and reduction structures of subtraction	Consolidation
Summer	Composition of 11 to 15 as '10 and a bit' See this represented on a rekenrek, a double-decker bus, & in part- part-whole diagrams	Position of the numbers 11 to 15 on the number line Recap midpoint on a 0 to 10 number line & see that 10 is the midpoint on a 0 to 20 number line.	Read, write & interpret expressions & equations with the + and = symbols to represent combining two sets (the aggregation structure of addition) Practise using knowledge of composition to identify the total/ sum	Read, write & interpret expressions & equations with the + and = symbols to represent an increase in a set (the augmentation structure of addition) Continue to use knowledge of composition to identify the total/ sum	Practise recalling the composition of the numbers 6, 7, 8 and 9	Consolidation	Composition of 11 to 19 as '10 and a bit Use a range of representations including the Hungarian number frame and the rekenrek	Read, write & interpret expressions & equations with the - and = symbols to represent the partitioning of a 'whole' (the partitioning structure of subtraction)	Read, write & interpret expressions & equations with the - and = symbols to represent the partitioning of a 'whole' (the reduction structure of subtraction)	Practise applying knowledge of composition when adding or subtracting Composition of 5, and 6 to 9 as '5 and a bit'	Practise applying knowledge of composition when adding or subtracting Composition of 10 and doubles within 10	Consolidation

	MATHS LONG TERM PLAN – Mastering Number – NCTEM - YEAR 2										
	Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	Week 7	Week 8	Week 9	Week 10	Week 11 & 12
Autumn	Composition of 6, 7, 8 and 9 as '5 and a bit'	Compare numbers within 10 using language of comparison when comparing sets of objects and numbers Use the inequality and equals symbols in expressions and equations	Odd/ even parts when even numbers are composed of 2 parts, including when 2 parts are equal (doubles)	Composition of 6 Identify missing addends and complete missing symbols expressions and equations using the equals or inequality symbol	Composition of 8 Use 2-by-4 grid and the rekenrek to find all the ways that 8 can be composed Apply to expressions and equations	Composition of 10 Use 2-by-5 grid (10-frame) and the rekenrek to find all the ways that 10 can be composed Apply to expressions and equations	Composition of odd numbers including being made of 2s and 1 more, or 1 odd part and 1 even part	Composition of 7 Use the Hungarian number pattern and the rekenrek to find all the ways that 7 can be composed Apply knowledge to expressions and equations	Composition of 9 Focus on 3-by-3 grid and the rekenrek to find all the ways that 9 can be composed Apply knowledge to expressions and equations	Composition of the numbers 11 to 19 as '10 and a bit' Apply to missing addend equations	Compare numbers within 20 Use proportional reasoning to identify the position of numbers within 20 in the linear number system, using midpoints of 5, 10 and 15
Spring	Doubling numbers to 10, using the '5 and a bit' structure to double 6, 7, 8 and 9	Composition of 20 Use known facts within 10 to find missing parts of 20 when the known part is greater than 10	Apply knowledge of facts within 10 to addition and subtraction within 20 WITHIN the 10s boundary	Use knowledge of doubles to calculate near doubles See that near doubles are adjacent numbers See that the sum in a near double is odd	Develop understanding of near doubles Identify different strategies for near doubles, doubling the smaller addend and adding 1 or the larger addend and subtracting 1	Consolidation	Add 3 numbers using known facts - identifying bonds of 10 and knowledge of the composition of 11 to 19 as '10 and a bit'	Add 2 numbers by 'bridging through 10'	Consolidate understanding of adding 2 numbers by 'bridging through 10' Solve missing addend problems	Subtract by 'bridging through 10'	Consolidate understanding of subtracting by 'bridging through 10'
Summer	Connect the order of multiples of 10 to the order of numbers within 10 Use proportional reasoning to identify the position of numbers within 100 in the linear number system	Connect missing addend problems to subtraction problems	Subtract across the 10 boundary, by subtracting FROM 10 rather than bridging THROUGH 10	Practise subtracting within 20, selecting from a range of strategies See that all subtractions can be solved by thinking of how a number is composed and identifying the missing part	Composition of 20 Use known facts within 10 to find missing part of 20 when the known part is less than 10	Consolidation	Use knowledge of composition to reason about expressions and equations and use the equals and inequality symbols in expressions and equations	Consolidate doubles and near doubles Introduce strategy of adding two adjacent odd numbers or two adjacent even numbers into a double	Consolidate understanding and develop fluency in transforming addition calculations involving two adjacent odd or two adjacent even numbers into a double	Consolidate understanding and develop fluency in transforming addition calculations involving two adjacent odd or two adjacent even numbers into a double	Consolidation

	MATHS LONG TERM PLAN – WHITE ROSE- YEAR 3											
	Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Place Value**			**Addition & subtraction**					**Multiplication & division A**			
Spring	**Multiplication & division B**			**Length & perimeter**			**Fractions A**			**Mass & capacity**		
Summer	**Fractions B**		**Money**		**Time**			**Shape**		**Statistics**		**Consolidation**

	MATHS LONG TERM PLAN –WHITE ROSE- YEAR 4											
	Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Place Value**				**Addition & subtraction**			**Area**	**Multiplication & division A**			**Consolidation**
Spring	**Multiplication & division B**			**Length & perimeter**		**Fractions**				**Decimals A**		
Summer	**Decimals B**		**Money**		**Time**		**Consolidation**	**Shape**		**Statistics**	**Position & direction**	

	MATHS LONG TERM PLAN – WHITE ROSE - YEAR 3/4											
	Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
Autumn	**Place value**				**Addition & subtraction**				**Multiplication & division A**			**Measurement Area**
Spring	**Multiplication & division B**			**Length & perimeter**		**Fractions A**			**Mass & capacity**		**Fractions B**	
Summer	**Time**		**Decimals**			**Money**		**Shape**		**Geometry Position & direction**	**Statistics**	

	MATHS LONG TERM PLAN – WHITE ROSE - YEAR 5/6											
	Week 1	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**	**Week 11**	**Week 12**
Autumn	**Place value**			**Addition & subtraction**	**Multiplication & division A**		**Fractions A**				**Multiplication & division B**	
Spring	**Multiplication & division B continued**	**Fractions B**		**Decimals A**		**Area, perimeter & volume**		**Decimals B**			**Fractions, decimals & percentages**	
Summer	**Ratio**	**Algebra**		**Shape**			**Position & direction**		**Statistics**		**Measurement Converting units**	

Times Tables Long Term Plan

At the Beamish & Pelton Federation we recognise the importance and ensuring that all children are secure with their times table facts by the end of year 4. We aim to provide opportunities for children to become secure in the quick recall of number facts, make connections and reason about number, in relation to multiplication.

In Year 1, pupils are taught to count in multiples of two, fives and tens.

Year 2					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Count in multiples of two, fives and tens.	Count in steps of 10 from 0 and then any number. Recall multiplication facts for 10x table.	Count in steps of 2 and 10, from 0. Recall multiplication and division facts for 2x table and 10x table.	Count in 5s Recall multiplication and division facts for 2x table, 10x table and 5x table.	Count in 3s. Recall multiplication and division facts for 2x table, 10x table and 5x table.	Count in 3s. Recall multiplication and division facts for 2x table, 10x table and 5x table

Year 3					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
10x table and associated division facts.	2x table and associated division facts. Recap of 10x table.	5x table and associated division facts. Recap of 10x and 2x table.	3x table and associated division facts. Recap of 5x table.	3x table and associated division facts. Recap of 10x, 2x and 5x table.	Recap of 10x, 2x, 5x and 3x table.

Year 4					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Recap of 10x, 2x, 5x and 3x table. 4x table and associated division facts.	6x table and associated division facts. 8x table and associated division facts. 7x table and associated division facts. Recap of 10x, 2x, 5x, 3x and 4x table.	9x table and associated division facts. 11x table and associated division facts. 12x table and associated division facts. Recap of all other tables learnt.	Recap of all tables.	Recap of all tables.	Recap of all tables. Multiplication check: June

Pupils in Year 5 and Year 6 will continue to practise all times tables regularly and will look at deepening understanding through looking at patterns and making connections.