MATHS IMPLEMENTATION AND CURRICULUM PROGRESSION

Maths Implementation and Progression at Black Horse Hill Infant School

Vocabulary and Reading Development	Inclusion	Assessment
Spoken language is promoted in all lessons for all children including strategies such as: no hands up , explicit teaching of vocabulary, modelled thinking and use of vocabulary by the teacher, think, pair, share, my turn-your turn, Talk Partners, Sentence Stems Reading is promoted wherever possible and wider texts are used to deepen knowledge across all subject areas.	All children will be given the same task because we believe in teaching a mastery approach across all subject areas and equal access for all. Quality first teaching for all children Lots of scaffolded practice for all children and this is continued in focus groups if required. Focus groups with adult support Pre-teach sessions Talk partners to build confidence Now and next boards to support completion of tasks Intervention External advice sought to support inclusion	Prior knowledge/retrieval opportunities are included at the beginning of units of work so that planning can be adapted/amended to support gaps or misconceptions. Clear sequence of lessons which identify the key knowledge that children need to know at the end of a lesson/unit of work. Children's books Knowledge Quizzes Assessment tick sheets to identify cohort, group and individual gaps
Retrieval practice (Knowing more and remembering more)	**Cultural Capital opportunities**	**British values and SMSC**
Expectations for classroom working walls. Morning starter sessions Revisit sessions Retrieval/fluency sessions	Visitors School celebrations- maths awards, maths day Significant figures	Teaching students to respect and value diversity is encouraged in the day-to-day teaching and learning through showing respect for different viewpoints and ideas as well as in the ability to work effectively together both individually and in groups.

Black Horse Hill Infant School Maths Curriculum Progression Map

	Foundation 1	Foundation 2	Year 1	Year 2
A1	Uses numbers spontaneously in play Counting Rhymes Subitising to 3 Reciting numbers past 5 Sorting and classifying objects Language of quantities, such as *'more than'* and *'fewer than'.* 2D Shapes in the environment.	Matching, sorting and grouping. Subitising within 5 Counting to 5 Representing numbers to 5 Comparing numbers within 5 Exploring pattern Exploring circles and triangles	Place value to 10 Addition and subtraction within 20	Place Value to at least 100 Addition and Subtraction
	Vocabulary Numbers, counting, count up/on/to/back/from, before, after, sort, compare, group, size, same, different more, a lot, holds, container, full, empty, shape, sort, flat, curved, corner, side, make, build	**Vocabulary** Numbers, numerals, Count on/up/to/from/down, before, after, More, less, many, few, fewer, fewest, smaller, smallest, equal to, the same as, Digit, numeral, compare, Order, sort, Size, Value, Between, count, add, how many, total, altogether, five frame, match, quantity, amount,	**Vocabulary** Numbers, numerals, Count on/up/to/from/down, before, after, More, less, many, few, fewer, fewest, smaller, smallest, equal to, the same as, Digit, numeral, compare, Order, Size, Value, Between, count, add, plus, make, sum take away, subtract, How many more to make…? How many more is,,, then,,,? How much more is…?, take away, minus, how many, total, altogether five frame, match, quantity, amount, Greater, lesser, Pair, Units, ones, tens, Ten more/less, Figure (s)In order/ A	**Vocabulary** Number, One, two, three to twenty and beyond, None Count on/up/to/from/down Before, after, More, less, many, few, fewer, fewest, smaller, smallest, Equal to, the same as, Odd, even, Digit, Numeral Compare, Order, Size, Value Between, halfway Number line, numbers to one hundred, hundreds, partition, recombine, Add, more, plus, make, sum, total, altogether Double, Half, halve, Equals, is the same (including equals sign)

			different order, Above, below, Number bonds, Inverse, Near doubles, Difference between, How many fewer is…than…? How much less is…?	How many more to make…? How many more is,,, then,,,? How much more is…?, Subtract, take away, minus.
A2	Say 1 number for each item in order to 5. Subitising to 3 Reciting numbers Link numerals and amounts compare objects (size, length, weight, capacity) Selecting appropriate shapes in construction Identify patterns and use informal language eg. Spotty, blobs Extend and create ABAB patterns Shapes of everyday objects, Positional language. Describe a familiar route	Numbers and Place Value- comparing numbers within 5 One more/one less Comparison and Composition of numbers up to 5 Exploring shapes with 4 sides Time Positional language	Place value within 20 Addition and subtraction within 20	Money- Measurement Multiplication and Division
	Vocabulary Numbers, count, match, same, different, size, colour, pattern, shape, sort, flat, curved, corner, side, make, build, circle, square, triangle, rectangle, Over, under, underneath, above, below, top, bottom, side, on, in, outside, inside, in front, behind, front, back before, after, beside, next to, middle	**Vocabulary** Compare, same, different, one more, one less, numbers, numerals, sort, count, add, plus, take away, subtract, how many, five frame, match, quantity, amount, now, next, later	**Vocabulary** Numbers, numerals, Count on/up/to/from/down, before, after, More, less, many, few, fewer, fewest, smaller, smallest, equal to, the same as, Digit, numeral, compare, Order, Size, Value, Between, count, add, plus, make, sum take away, subtract, How many more to make…? How many more is,,, then,,,? How much more is…?, take away,	**Vocabulary** Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change How much? How many? total, Costs more, costs less, dear(er), cheaper, costs the same as Double, halve, share, share equally group in pairs, equal groups of,

			minus, how many, total, altogether five frame, match, quantity, amount, Greater, lesser, Pair, Units, ones, tens, Ten more/less, Figure (s) In order/ A different order, Above, below, Number bonds ,Inverse, Near doubles, Difference between, How many fewer is…than…? How much less	Divide, Once, twice, three times. Five times. Count in tens (forwards from/ backwards from) How many times? Lots of, groups of, Multiples of, times, multiply, multiply by, Repeated addition Array, row, column, Group in twos, threes, etc. Divided by, left, left over
SP1	Counting actions e.g. claps or jumps. Subitising to 3 Show finger numbers up to 5. Simple real world practical maths problems up to 5. Separates a group of objects/toys in different ways, recognises that the total is still the same. Experiment with own symbols, marks and numerals Similarities of shapes in the environment	Pupils will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. Length and height. Time	Number - addition and subtraction Place Value within 50 Bonds to 20 Number families	Multiplication and Division Shape Statistics
	Vocabulary Numbers, count, more, less, fewer, groups, same, different, total, altogether, represent, draw, shapes,	**Vocabulary** Part, whole, count, numeral, number, add, plus, take away, subtract, more, less, fewer, one more, one less, same, equal, measure, length, height, long, short, longer, shorter, tall, taller, time, now, next, later, before,	**Vocabulary** Greater, lesser, Pair, ones, tens Ten more/less, In order/ A different order, Above, below, Number bonds, Inverse, Near doubles, Difference between	**Vocabulary** Double, halve, share, share equally group in pairs, equal groups of, Divide, Once, twice, three times. Five times. Count in tens (forwards from/ backwards from) How many times? Lots of, groups of,

		after, soon, yesterday, today, tomorrow	How many fewer is…than…? How much less is…? add, subtract, addition, subtraction,	Multiples of, times, multiply, multiply by, Repeated addition Array, row, column, Group in twos, threes, etc. Divided by, left, left over, Sort, Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square, Shape Flat, curved, straight, round, Solid Corner, vertex, vertices, Face, side, Count, tally, sort, vote, graph, block graph, pictogram, represent, group, set, list, table, title, most popular, least popular, most/least common
SP2	Subitising to 3 Knows that last number reached identifies how many objects are in a set. (cardinal principle) Matches numeral and quantity Counts out up to six objects from a larger group. Counts an irregular arrangement of objects. Talk about and explore 2D shapes, and mathematical terms to describe shapes	Identify when two sets are equal or unequal and connect two equal groups to doubles. Connect quantities to numerals 3D shapes Spatial awareness Exploring repeating Patterns	Measures - length, height, weight, volume Time	Fractions Measurement – Time Addition and Subtraction – efficient Strategies

	Vocabulary Numbers, count, more, less, fewer, groups, same, different, total, altogether, how many? set, square, rectangle, triangle, circle, flat, straight, side, corner, equal, longer, shorter,	**Vocabulary** Equal, unequal, same, different, compare, more, fewer, greater, less, count on/back, total, altogether, how many? Shapes, flat, solid, 2D, 3D, circle, square, triangle, rectangle, side, straight, curved, equal, cylinder, sphere, cube, cuboid, cone, face, pattern, repeating, same, different,	**Vocabulary** Weigh, weighs, balance Heavy, heavier, heaviest, light, lighter, lightest, Scales, Length, height, Longer, longest, shorter, shortest, taller, tallest, higher, highest, Low, wide, narrow, deep, shallow, thick, thin, Metre, ruler, metre stick	**Vocabulary** Whole, Equal, One half, Equal parts, four equal parts, Two halves, A quarter, two quarters, three quarters, one third, a third, equivalence, equivalent Number bonds, Inverse Near doubles, Difference between How many fewer is…than…? How much less is…?
S1	Identifies numerals 1 to 5 and beginning to use marks to represent numbers. Subitising to 3 Finds one more or one less from a group of up to five objects. In practical activities, use the vocabulary involved in adding. Talk about and explore 3D shapes and use mathematical terms to describe them. Describe a sequence of events using words such as first, then	Consolidate counting skills, counting to larger numbers and developing a wider range of counting strategies. Spatial reasoning- matching, rotating and manipulating Composing and decomposing shapes	Money Multiplication and Division Place Value	Measurement: Length, Capacity, Mass, temperature Position and Direction
	Vocabulary Count, number, represent, one more, add, more, greater, total, altogether, makes, cone, cube, cuboid, sphere, cylinder, flat, curved, face	**Vocabulary** counting, forward, backward, matching, rotating, shape, patterns, fit	**Vocabulary** Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, How much? How many?, Costs more, costs less, dear(er), cheaper, costs the same as	**Vocabulary** Length, height, Longer, longest, shorter, shortest, taller, tallest, higher, highest, Width, depth Long, short, tall, high, Low, wide, narrow, deep, shallow, thick, thin, Metre, ruler, metre stick, metre, kilometre, gram,

			Once, twice, three times. Five times. Count in tens (forwards from/ backwards from) How many times? Lots of, groups of Multiple of, times, multiply, multiply by, Repeated addition Array, row, column, Group in twos, threes, etc, Divided by, left, left over	kilogram, millilitre, litre, temperature, degrees, Position, Around, Opposite, Apart, Between, edge, centre, Corner, Direction, Journey, Left, right, Across, Near, Along, To, from, Movement, Whole turn, half turn, rotation, clockwise, anticlockwise, straight line, ninety degree turn, right angle
S2	Selects the correct numeral to represent 1 to 5 Subititsing to 3 Compare quantities using language more than and fewer than In practical activities beginning to use the vocabulary involved in adding and subtracting. Beginning to use mathematical names for 'solid' 3D shapes and mathematical terms to describe shape Extend and create ABAB patterns Notice and correct an error in a repeating pattern.	Doubling Sharing and grouping Odd and even Patterns and relationships Spatial reasoning- mapping	Fractions Shape Place Value within 100	Two-step problems
	Vocabulary Count, number, represent, one more, one less, add, more, group, greater, total, altogether, makes, take away, subtract, less,	**Vocabulary** Groups of, same, equal, lots of, odd, even, double, share, same, different, position, next to, behind, under, over, through, by ,	**Vocabulary** Whole, Equal, One half, Equal parts, four equal parts, Two halves A quarter, two quarters, Sort	**Vocabulary** Answer, check, same number(s), different number(s), missing number(s), Number facts,

	fewer, count on , count back, cone, cube, cuboid, sphere, cylinder, flat, curved, face	pattern, measure, match, map, model, first, next, past	Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square, Shape, Flat, curved, straight, round, Solid, Corner, Face, side, vertex, vertices, Numbers, numerals, Count on/up/to/from/down, before, after, More, less, many, few, fewer, fewest, smaller, smallest, equal to, the same as, Digit, numeral, compare, Order, Size, Value, Between,	

Maths Lesson Structure

Long Term Memory (Retrieval)

Review and revisit previous knowledge-make links to knowledge from previous lesson, unit, term, year.

Amend future planning to incorporate any gaps in knowledge.

Introduce new knowledge

Hook problem. Teacher introduces vocabulary and new knowledge in small steps to the children making links to prior learning. Teachers will provide modelling, explanations and practice to the children.

Developing the Knowledge

Teachers will ask questions and use strategies to check for pupil understanding and to identify the next steps in the lesson. Children will explore the mathematical concept individually and in groups

Applying the Knowledge

New knowledge is sometimes deepened by applying knowledge to complete practice tasks. Tasks are carefully planned to ensure that they are purposeful and support the application of new knowledge.

Review-has learning been successful?

Teachers and children will review the learning that has taken place. Misconceptions addressed and feedback given.