Gateshead Core Curriculum

Year 1

Review of Learning

In order to ensure that the curriculum meets the learning needs of the class, it is vital that there is an accurate picture of previous teaching and coverage. The best preparation for the next stage is security in the previous stage so moving on too quickly is counter-productive in the long term. Last year's class teacher and the new teacher (including the maths subject leader or SLT where appropriate/possible) should work together to look at which objectives from the maths curriculum were taught in depth in the previous year and were understood fully. It may be decided that some objectives from the previous year's curriculum may need to be consolidated and so an additional column has been added to the Gateshead Core Curriculum containing the previous year's objectives. These can be highlighted accordingly to indicate if further consolidation is required throughout the next academic year.

These highlighted objectives could then be inserted into an appropriate place in the Year 1 curriculum where they can be taught first in order to ensure a strong foundation to build further learning on. In some instances, it may be necessary to refer to earlier bands than 40-60 in order to find a best fit. The online document "Development Matters" and the documents produced by educationGateshead will provide further guidance. Additional objectives have been included in this document. These are the Ready to Progress Criteria from the DfE June 2020 Non-Statutory Guidance for the National Curriculum in England (https://www.gov.uk/government/publications/teaching-mathematics-in-primary-schools). For ease of identification, these are in a red font colour.

In some instances, objectives may appear in all three terms. It is not the intention that these objectives are to be taught in each term but for the class teacher to consider the appropriateness of them. It may be that the teacher has taught the objective in the autumn and spring terms and assessment demonstrates that the children have a deep understanding of the objective. In this case, the class teacher may choose not to dedicate a full lesson of teaching but may chose a "lighter touch" to ensure retrieval of this objective is strong. Conversely, the class teacher may choose not to teach an objective in the autumn term due to focusing on other areas. In this case it would be imperative that the objectives were taught fully in the next two terms. Again, class teachers may identify that children require the objectives to be taught in all three terms and further consolidation of learning.

These documents are intended to be flexible and support class teachers in designing a flexible and personalised curriculum for their class.

Reasoning and Problem solving

There is the expectation that **all** units of mathematics will include elements of reasoning and problem solving. Therefore, the following objectives have been removed from the progression grid as they could be equally applied to all areas of mathematics

- *Solve problems involving comparing and ordering numbers and quantities.*
- *Describe simple patterns and relationships involving numbers; decide if examples satisfy a given condition.*
- Discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than, so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.

educationGateshead Core Curriculum for Primary Mathematics Progression Grid Year 1

EYFS consolidation	Year 1 Autumn	Year 1 Spring	Year 1 Summer
Number - 40-60 months • **Recognises numerals 1-5** • **Recognises numerals of personal significance** • **Counts up to 3 or 4 objects by saying one number name for each item** • **Counts actions or objects that cannot be moved** • **Counts objects to 10 and beginning to count beyond 10** • **Counts out up to 6 objects from a larger group** • **Selects the correct numeral to represent 1-5, the 1- 10 objects** • **Counts an irregular arrangement of up to 10 objects** • **Estimates how many objects they can see and checks by counting them**	**Understanding and investigating with numbers** **3 weeks**	**Understanding and investigating with numbers** **3 weeks**	**Understanding and investigating with numbers** **3 weeks**
	Place value, ordering and rounding	**Place value, ordering and rounding**	**Place value, ordering and rounding**
	• **Begin to count up to 100, forwards and backwards, beginning with 0 or 1, or from any given number.** • Practise counting as reciting numbers and enumerating objects and to identify order (1st, 2nd, 3rd...). • **Read and write numbers from 1 to 20 in numerals and words.** • **Count, read and write numbers to 100 in numerals.** • **Identify and represent numbers using objects.** • **Given a number** *within range pupils are working on,* **identify one more and one less,** *relating this to adding and subtracting one.* • **Use the language of: equal to, more than, less than (fewer), most, least** *to compare and order numbers and quantities.*	• **Count up to 100, forwards and backwards, beginning with 0 or 1, or from any given number.** • Practise counting as reciting numbers and enumerating objects and to identify order (1st, 2nd, 3rd...). • **Read and write numbers from 1 to 20 in numerals and words.** • **Count, read and write numbers to 100 in numerals.** • **Identify and represent numbers using objects and pictorial representations including the number line.** • **Given a number, identify one more and one less.** • **Given a number** *within range pupils are working on,* **identify one more and one less,** *relating this to adding and subtracting one.*	• **Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.** • 1NPV–1 Count within 100, forwards and backwards, starting with any number • Practise counting as reciting numbers and enumerating objects and to identify order (1st, 2nd, 3rd...). • **Read and write numbers from 1 to 20 in numerals and words.** • **Count, read and write numbers to 100 in numerals.** • **Identify and represent numbers using objects and pictorial representations including the number line.** • **Given a number, identify one more and one less.** • **Given a number** *within range pupils are working on,* **identify one more and**

• **Uses the language of "more" and "fewer" to compare two sets of objects** • **Finds the total number of items in two group by counting all of them** • **Says the number that is one more than a given number** • **Finds one more or one less from a group of up to 5 objects then 10 objects** • **In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting** • **Records, using marks that they can interpret and explain**	• Begin to recognise place value in numbers *up to* 20 by reading, writing, counting and comparing numbers, supported by objects and pictorial representations e.g. *knowing that adding a one digit number to ten makes a teen number and subtracting units from a teen number leaves ten.*	• **Use the language of: equal to, more than, less than (fewer), most, least** *to compare and order numbers and quantities.* • Begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations e.g. *Knowing that adding a one digit number to ten makes a teen number and subtracting units from a teen number leaves ten*	**one less,** *relating this to adding and subtracting one.* • **Use the language of: equal to, more than, less than (fewer), most, least** *to compare and order numbers and quantities.* • 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and = • Begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations e.g. *Knowing that adding a one digit number to ten makes a teen number and subtracting units from a teen number leaves ten*
Number - Early Learning Goals • **Children count reliably with number from 1-20, place them in order and say which number is one more or one less than a given number**	**Properties of numbers and number sequences**	**Properties of numbers and number sequences**	**Properties of numbers and number sequences**
	• **Count in multiples of two** to develop recognition of patterns e.g. odd and even. • Recognize and create repeating patterns with objects and with shapes.	• **Count in multiples of two and five** to develop recognition of patterns. • Recognise and create repeating patterns with objects and with shapes.	• **Count in multiples of twos, fives and tens** from different multiples to develop recognition of patterns. • 1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples,

• **Using quantities or objects, they add or subtract 2 single-digit numbers and count on or back to find the answers** • **They solve problems, including doubling, halving and sharing**			beginning with any multiple, and count forwards and backwards through the odd numbers. • Recognise and create repeating patterns with objects and with shapes.
	Fractions	**Fractions**	**Fractions**
		• *Experience* half and quarter as 'fractions of' discrete (e.*g. countables*) and continuous (*e.g. liquid*) quantities by solving problems using shapes, objects and quantities. For example, recognise and find half a length, quantity, set of objects or shape. • Connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole. • **Recognize, find and name a half as one of two equal parts of an object, shape or quantity**	• *Experience* half and quarter as 'fractions of' discrete (e.*g. countables*) and continuous (*e.g. liquid*) quantities by solving problems using shapes, objects and quantities. For example, recognise and find half a length, quantity, set of objects or shape. • Connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole. • **Recognize, find and name a half as one of two equal parts of an object, shape or quantity** • **Recognize, find and name a quarter as one of four equal parts of an object, shape or quantity**
	Developing and applying calculation	**Developing and applying calculation**	**Developing and applying calculation**
	Addition and Subtraction	**Addition and Subtraction**	**Addition and Subtraction**

	2 weeks	2 weeks	2 weeks
	• **Represent and use number bonds and related subtraction facts within 10** *using concrete objects and pictorial representations to support understanding.* • Memorise and reason with number bonds to 10 in several forms (for example, $3 + 4 = 7$; $7 – 4 = 3$; $4 = 7 - 3$). This establishes addition and subtraction as related operations. • **Add and subtract one-digit numbers including zero** *(progressing from counting to non counting strategies, starting to use recall of number bonds).* • Realise the effect of adding or subtracting zero. • **Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.** • Combine and increase numbers, counting forwards and backwards**.** • **Solve one-step problems that involve addition and subtraction, using concrete**	• **Represent and use number bonds and related subtraction facts within 20** *using concrete objects and pictorial representations to support understanding.* • Memorise and reason with number bonds to 10 and 20 in several forms (for example, $9 + 7 = 16$; $16 – 7 = 9$; $7 = 16 – 9$). This establishes addition and subtraction as related operations. • AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers • *Make connections between bonds for 10 and 20 e.g. between $7 + 2= 9$ and $17 + 2 = 19$ supported by representations* • **Add and subtract one-digit and two-digit numbers to 20, including zero** *(progressing from counting to non counting strategies, starting to use recall of number bonds).* • Realise the effect of adding or subtracting zero.	• 1NF–1 Develop fluency in addition and subtraction facts within 10. • **Represent and use number bonds and related subtraction facts within 20** *using concrete objects and pictorial representations to support understanding.* • Memorise and reason with number bonds to 10 and 20 in several forms (for example, $9 + 7 = 16$; $16 – 7 = 9$; $7 = 16 – 9$). This establishes addition and subtraction as related operations. • *Make connections between bonds for 10 and 20 e.g. between $7 + 2= 9$ and $17 + 2 = 19$ supported by representations.* • **Add and subtract one-digit and two-digit numbers to 20, including zero** *(progressing from counting to non counting strategies, starting to use recall of number bonds).* • Realise the effect of adding or subtracting zero**.** • **Read, write and interpret mathematical statements involving addition (+),**

	objects and pictorial representations, and missing number problems such as 7 = □ - 9.	• **Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.** • 1AS–2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. • Combine and increase numbers, counting forwards and backwards • **Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = * - 9.**	**subtraction (-) and equals (=) signs.** • Combine and increase numbers, counting forwards and backwards • **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 **2 weeks**	**Multiplication and Division** **2 weeks**	**Multiplication and Division** **2 weeks**
	• **Count in multiples of two.**	• **Solve one-step problems involving multiplication and division, by calculating the**	• **Solve one-step problems involving multiplication and division, by calculating the**

	• Make connections between arrays, number patterns, and counting in twos. • *Recall doubles of numbers to 5 and corresponding halves.*	**answer using concrete objects, pictorial representations and arrays with the support of the teacher.** • Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and *make connections with* finding simple fractions of objects, numbers and quantities • Make connections between arrays, number patterns, and counting in twos and fives. • *Recall doubles of numbers to 10 and corresponding halves*	**answer using concrete objects, pictorial representations and arrays with the support of the teacher.** • Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and *make connections with* finding simple fractions of objects, numbers and quantities • Make connections between arrays, number patterns, and counting in twos, fives and tens. *Recall doubles of numbers to 10 and corresponding halves*
Shape, Space and Measure 40-60 months	**Measurement 2 weeks**	**Measurement 2 weeks**	**Measurement 2 weeks**
• **Beginning to use mathematical names for "solid" 3D shapes and "flat" 2D shapes, and mathematical terms to describe shapes** • **Select a particular named shape**	• **Compare, describe and solve practical problems for:** • **lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half]** • Move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example, liquid) measurement, to using manageable common standard units.	• **Compare, describe and solve practical problems for:** • **time [e.g. quicker, slower, earlier, later].** • Move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example, liquid) measurement, to using manageable common standard units.	• **Compare, describe and solve practical problems for:** • **mass/weight [e.g. heavy/light, heavier than, lighter than]** • **capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter]** • Move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example,

• **Can describe their relative position such as "behind" or "next to** • **Orders 2 or 3 items by length of height** • **Uses familiar objects and common shapes to create and recreate patterns and build models** • **Use everyday language related to time** • **Orders and sequences familiar events** • **Measures short periods of times in simple ways**	• Begin to use measuring tools such as a ruler, weighing scales and containers. • **measure and begin to record the following:** • **lengths and heights** • **Recognize and know the value of different denominations of coins and notes.** • **Sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening].** • **Recognize and use language relating to dates, including days of the week, weeks, months and years.**	• Begin to use measuring tools such as a ruler, weighing scales and containers. • **measure and begin to record the following:** • **time (hours, minutes, seconds).** • **Recognize and know the value of different denominations of coins and notes.** • **Recognize 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.** • Use the language of time, including telling the time throughout the day, first using o'clock and then half past.	liquid) measurement, to using manageable common standard units. • Begin to use measuring tools such as a ruler, weighing scales and containers. • **measure and begin to record the following:** • **mass/weight** • **capacity and volume** • **Recognize and know the value of different denominations of coins and notes.** • **Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.** • Use the language of time, including telling the time throughout the day, first using o'clock and then half past. • Connect experiences of turning clockwise with movement of hands on a clock face.
	Geometry **2 weeks**	**Geometry** **2 weeks**	**Geometry** **2 weeks**
	Properties of Shapes	**Properties of Shapes**	**Properties of Shapes**

Shape, space and measure – Early Learning Goals			
Shape, space and measure – Early Learning Goals • **Children use everyday language to talk about size, weight capacity, position, direction, time and money to compare, quantities and objects and to solve problems** • **They recognize, create and describe patterns.**	• **Recognize and name common 2-D and 3-D shapes, including:** • **2-D shapes [e.g. rectangles (including squares), circles and triangles]** • **3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].** • Pupils handle common 2-D and 3-D shapes, naming these and related everyday objects fluently. They recognize these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids are not always similar to each other. • *Compare and sort common 2D and 3D shapes and everyday objects.* • *Recognize and create repeating patterns with objects and with shapes.*	• **Recognize and name common 2-D and 3-D shapes, including:** • **2-D shapes [e.g. rectangles (including squares), circles and triangles]** • **3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].** • Pupils handle common 2-D and 3-D shapes, naming these and related everyday objects fluently. They recognize these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids are not always similar to each other. • 1G–1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. • *Compare and sort common 2D and 3D shapes and everyday objects.*	• *Compare and sort common 2D and 3D shapes and everyday objects.* • *Recognize and create repeating patterns with objects and with shapes.* • 1G–2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.
	Position and Direction	**Position and Direction**	**Position and Direction**
	• Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in	• **Describe position, direction and movement, including half, quarter and three-quarter turns.**	• **Describe position, direction and movement, including half, quarter and three-quarter turns.**

	front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.	• Make whole, half, quarter and three-quarter turns in both directions and connect turning clockwise with movement on a clock face. • Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.	• Make whole, half, quarter and three-quarter turns in both directions and connect turning clockwise with movement on a clock face.
	Statistics 1 week	**Statistics 1 week**	**Statistics 1 week**
	Interpreting, Constructing and Presenting Data	**Interpreting, Constructing and Presenting Data**	**Interpreting, Constructing and Presenting Data**
		NB this is not included in the National Curriculum for Year 1 but schools may wish to introduce pupils to these skills or use data contexts to support problem solving • *Begin to interpret and construct simple pictograms, tally charts, block diagrams and simple tables often in cross curricular contexts.* • *Begin to ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.*	*NB this is not included in the National Curriculum for Year 1 but schools may wish to introduce pupils to these skills or use data contexts to support problem solving* • *Begin to interpret and construct simple pictograms, tally charts, block diagrams and simple tables often in cross curricular contexts.* • *Begin to ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.*