



Hursthead Infant School



Maths at Hursthead Infant School

Curriculum Map and Subject Overview

Intention statement:

Mathematics is a crucial tool in everyday life, enabling children to explore and make sense of their world. Our children are provided with lots of interesting opportunities to enjoy and have fun investigating numbers and solving problems. We aim to develop a sound understanding of the number system with an emphasis on the development of mental arithmetic and on applying mathematics to real life situations. From the start of Reception, in line with the early learning goals, children explore numbers through planned practical experiences and also through more formal numeracy sessions as the year progresses. In Year 1 and Year 2 we follow the National Curriculum to develop mathematical understanding, skills and confidence. There is a daily maths lesson in which children learn to apply these number concepts.

EYFS Statutory Framework

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

National Curriculum

The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language

- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Key Stage 1

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 [for example, concrete objects and measuring tools]. 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. By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

The **Key Stage 1** Maths curriculum aims to develop children's confidence and fluency in mathematics, providing a strong foundation for future learning. The main aims are:

1. Fluency – Children should develop a secure understanding of number, counting, and place value. They should be able to recall and apply number facts, such as addition and subtraction bonds, and begin to use efficient calculation methods.
2. Reasoning – Pupils should be able to explain their mathematical thinking, spot patterns, and make connections between different concepts. They should use mathematical language to describe their understanding and justify their answers.
3. Problem-Solving – Children should apply their knowledge to solve real-life mathematical problems. This includes developing strategies for tackling challenges, persevering when faced with difficulties, and using different approaches to find solutions.

These aims ensure that children build strong mathematical foundations, preparing them for Key Stage 2 and beyond.

Our Curriculum

In the **Early Years**, maths is taught through a play-based, practical approach that helps children develop a strong foundation in number, shape, space, and measure. Through hands-on activities, songs, stories, and real-life experiences, children explore mathematical concepts in a fun and engaging way. We use concrete resources such as counting objects, number lines, and tens frames to support understanding before moving on to pictorial and abstract representations. Children are encouraged to investigate, problem-solve, and talk about their mathematical thinking, developing confidence and curiosity. By embedding maths into everyday routines and play, we ensure that children see maths as meaningful and enjoyable, setting them up for success as they progress through school.

At our school, we follow the **White Rose Maths** scheme of work to teach mathematics in Key Stage 1. This approach focuses on developing a deep understanding of mathematical concepts through a combination of practical activities, problem-solving, and reasoning. Lessons are carefully structured to build confidence, fluency, and a love for maths, ensuring that children progress at a pace that supports mastery of key skills. The White Rose scheme encourages the use of concrete objects, pictorial representations, and abstract methods to help children grasp new concepts in a clear and engaging way. By following this approach, we aim to provide a strong mathematical foundation that will support your child's learning as they move through school.

We also use the **NCETM (National Centre for Excellence in the Teaching of Mathematics) Maths Mastery** approach for number to deepen children's understanding and enhance their learning. This approach focuses on developing a strong number sense, ensuring that children build fluency, confidence, and flexibility in working with numbers. Through carefully structured activities, children explore mathematical concepts using concrete materials, pictorial representations, and abstract thinking. The emphasis on reasoning and problem-solving helps children make connections and apply their knowledge in different contexts. By embedding NCETM's mastery principles, we ensure that all children develop a secure foundation in number, enabling them to progress with confidence in their mathematical journey.

Our children are introduced to the processes of calculation by building a sequence following a C-P-A approach. The C-P-A approach stands for Concrete - Pictorial – Abstract. This means that throughout the school, we see children using concrete equipment and pictures to support their understanding of more abstract concepts.

Over time children learn how to use models and images, such as Dienes, place value counters, bar models and tens frames, to support their mental and informal written methods of calculation. As children's mental methods are strengthened and refined, so too are their informal written methods. These methods become more efficient and succinct and lead to efficient written methods that can be used more generally.

When faced with a calculation, children are able to decide which method is most appropriate and have strategies to check its accuracy. They will do this by asking themselves:

- Can I do this in my head?
- Can I do this in my head using drawing or jottings?
- Do I need to use a pencil and paper procedure?

At whatever stage in their learning, and whatever method is being used, it must still be underpinned by a secure and appropriate knowledge of number facts, along with those mental skills that are needed to carry out the process and judge if it was successful.

What does Mathematics teaching look like?

We aim to provide all pupils with direct teaching every day, which is oral, interactive and stimulating. Teaching styles and lesson structure provide opportunities for pupils to consolidate their previous learning, use and apply their knowledge, understanding and skills, pose and ask questions, investigate mathematical ideas, reflect on their own learning and make links with other work.

Our approach to teaching is based on four key principles:

- Dedicated mathematics lessons - which may be whole class or small group work;
- Direct teaching and interactive oral work;
- An emphasis on mental calculation with a mental maths session in addition to the main mathematics teaching in KS1;
- Activities are adapted so that all pupils are engaged in mathematics related to a common theme.

During a lesson time is spent assessing pupils' current knowledge and building upon that through, direct teaching and questioning of the whole class, groups or individuals. A range of teaching strategies are used including directing, instructing, demonstrating, explaining and illustrating, questioning and discussing, consolidating, evaluating responses and summarising. Pupils are encouraged to make decisions, communicate their understanding to others and to reason. Teachers aim to create an environment where pupils are secure and feel confident in being able to take risks in their learning. The EYFS curriculum is delivered through the NCTEM Mastery for Number resources.

In KS1 the curriculum is delivered through White Rose Maths Mastery (Small Steps) and Mastering for Number NCTEM. Teachers use the skills overview to ensure progression across the year groups

Planning for teaching and learning is developed from the EYFS (2021), Development Matters 2020 and National Curriculum (2014).

Maths Topics

Topic overview	Autumn	Spring	Summer
EYFS	Subitising within 5 Counting, ordinality and cardinality within 5 Composition within 5 Comparison- more/fewer/equal 2D shape and position	Subitising- die patterns Counting, ordinality and cardinality within 10 Composition up to 10 Comparison- ordering 3D shape and pattern	Subitising- Counting, ordinality and cardinality Composition of 10 Comparison- track games Length, mass and capacity Routines
Year 1	Place Value within 10 Addition and subtraction (within 10) Geometry/Shape Place Value with 20	Addition and Subtraction (within 20) Length and Height Mass and Volume Multiplication and division	Fractions Position and direction Place value within 100 Money Time
Year 2	Place Value within 100 Addition and Subtraction within 100 Geometry/ Shape	Money Multiplication & Division Length and height Mass Capacity & Temperature	Fractions Time Statistics Position & Direction

EYFS Maths Scheme of work

EYFS

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

EYFS Maths Scheme of work		
Autumn	Spring	Summer
Pupils will build on previous experiences of number from their home and nursery environments, and further develop their subitising and counting skills. They will explore the composition of numbers within 5. They will begin to compare sets of objects and use the language of comparison. Pupils will: • identify when a set can be subitised and when counting is needed • subitise different arrangements, both unstructured and structured, including using the Hungarian number frame • make different arrangements of numbers within 5 and talk about what they can see, to develop their conceptual subitising skills	Pupils will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals. Pupils will: • continue to develop their 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' and connect this to finger patterns and the Hungarian number frame	Pupils will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice. Pupils will: • continue to develop their counting skills, counting larger sets as well as counting actions and sounds • explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame • compare quantities and numbers, including sets of objects which have different attributes

• spot smaller numbers 'hiding' inside larger numbers • connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers • hear and join in with the counting sequence, and connect this to the 'staircase' pattern of the counting numbers, seeing that each number is made of one more than the previous number • develop counting skills and knowledge, including: that the last number in the count tells us 'how many' (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds • compare sets of objects by matching • begin to develop the language of 'whole' when talking about objects which have parts • Introduce 2D shapes (one shape each week) in line with number of the week approach e.g. circle = 1, triangle = 3 • Learn the names of the 2D shapes: circle, triangle, square, rectangle, pentagon & hexagon • Introduce informal & mathematical language to describe 2D shapes e.g. sides, corners, straight, curved, flat • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. • Talk about significant times of the day e.g. lunch, home, bed	• focus on equal and unequal groups when comparing numbers • understand that two equal groups can be called a 'double' and connect this to finger patterns • sort odd and even numbers according to their 'shape' • continue to develop their understanding of the counting sequence and link cardinality and ordinality through the 'staircase' pattern • order numbers and play track games • join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers • Introduce 3D shapes (one shape each week) Learn the names of 3D shapes: sphere, cube, cuboid, cone & pyramid • Teach use of language to describe 3D shapes e.g. solid, faces, edges, corners (vertices) & recognise the 2D shapes on their faces. Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. • Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and correct an error in a repeating pattern. • Continue, copy and create repeating patterns made of objects, numbers & shapes.	• continue to 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 • begin to generalise about 'one more than' and 'one less than' numbers within 10 • continue to identify when sets can be subitised and when counting is necessary • develop conceptual subitising skills including when using a rekenrek • Sequence 2 or 3 familiar events & begin to describe a sequence of events, real or fictional, using words such as first, then, before, after, yesterday, tomorrow • Learn the names of the days of the week & say them in order • Learn to compare 3 objects for length using longer, shorter, taller, wider, narrower, longest, shortest, etc • Learn to compare 2 objects for mass using heavier, lighter Learn to compare 2 then 3 containers for volume/capacity using more/less, most/least empty, full, nearly • Understand conservation & use uniform non-standard units to measure length, mass, capacity
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Year 1 Scheme of Work

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 [for example, concrete objects and measuring tools]. 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.

Year 1 Maths Scheme of work		
Autumn	Spring	Summer
Number & Place Value - count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number - count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens - given a number, identify one more and one less - Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least Addition & Subtraction - Represent and use number bonds and related subtraction facts within 10 - Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	Addition & Subtraction - Represent and use number bonds and related subtraction facts within 20 - Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs - Add and subtract one digit numbers to 20, including zero - Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems, such as $7 = ? - 9$ Number & Place - Count to 50, forwards and backwards, beginning with 0 or 1, from any given number - Count, read and write numbers to 50 in numerals - Given a number, identify one more or one less - Identify and represent numbers using objects and pictorial representations including the number line,	Multiplication & Division - Count in multiples of twos, fives and tens - Solve one step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher Fractions - Recognise, find and name a half as one of two equal parts of an object, shape or quantity - Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity Geometry – Position & Direction - Describe position, direction and movement including whole, half, quarter and three quarter turns

- Add and subtract one -digit numbers to 10, including zero
- Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems

Geometry – shape

- Recognise and name common 2-D shapes, including (for example): rectangles
- (including squares), circles and triangles
- Recognise and name common 3-D shapes, including (for example): cuboids (including cubes), pyramids and spheres

Number & Place Value

- Count to twenty, forwards and backwards, beginning with 0 or 1, from any given number
- Count, read and write numbers to 20 in numerals and words
- Given a number, identify one more or one less
- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- recognise and know the value of different denominations of coins and notes
- compare, describe and solve practical problems for: time (quicker, slower, earlier, later)

Measures – Length & height

- Measure and begin to record lengths and heights
- Compare, describe and solve practical problems for lengths and heights (for example long/short, longer/shorter, tall/short, double/half)

and use the language of: equal to, more than, less than (fewer), most, least

- Count in multiples of twos, fives and tens

Measures – Capacity & Mass

- Measure and begin to record mass/weight, capacity and volume
- Compare, describe and solve practical problems for: mass/weight (for example heavy/ light, heavier than, lighter than); capacity and volume (for example full/empty, more than, less than, half, half full, quarter)

Addition & Subtraction

- Represent and use number bonds and related subtraction facts within 20
- Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs
- Add and subtract one digit numbers to 20, including zero
- Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems, such as 7=?-9

Number & Place Value

- Count to and across 100, forwards and backwards, beginning with 0 or 1, from any given number
- Count, read and write numbers to 100 in numerals
- Given a number, identify one more or one less
- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.

Measures – Money

- Recognise and know the value of different denominations of coins and notes

Measures – time

- Sequence events in chronological order using language (for example before/after, next, first, today, yesterday, tomorrow, morning, afternoon and evening)
- Recognise and use language relating to dates, including days of the week, 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.
- Compare, describe and solve practical problems for time (for example quicker, slower, earlier, later)
- Measure and begin to record time (hours, minutes and seconds)

Year 2 Scheme of Work

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 [for example, concrete objects and measuring tools]. 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. By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

Year 2 Maths Scheme of work		
Autumn	Spring	Summer
Number and place value - count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward - recognise the place value of each digit in a two-digit number (tens, ones) - identify, represent and estimate numbers using different representations, including the number line - compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs - read and write numbers to at least 100 in numerals and in words - use place value and number facts to solve problems. Calculation - addition and subtraction	Measures – Money - recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value - find different combinations of coins that equal the same amounts of money - solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change Multiplication & Division - recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers - calculate mathematical statements for multiplication and division within the multiplication tables and write them	Fractions - recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity - write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ Measures – Time - 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

• solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods • show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems Geometry- Shape • identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D and 3-D shapes and everyday objects.	using the multiplication ($\times$), division ($\div$) and equals ($=$) signs • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. Measures – Length & Height • Measure in centimetres • Measure in metres • Compare lengths and heights • Order lengths and heights • Four operations with lengths and heights Measures – Mass (g & kg) • Compare mass • Measure in grams • Measure in kilograms • Four operations with mass • Compare volume and capacity • Measure in millilitres • Measure in litres • Four operations with volume and capacity • Temperature	Statistics • interpret and construct simple pictograms, tally charts, block diagrams and simple tables • ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • ask and answer questions about totalling and comparing categorical data. Geometry – Position & Shape • use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) • identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid
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Mathematical progression at Hursthead Infant School

Progression of Mathematical Skills:

<u>Progression through Place Value Objectives</u>			
EYFS	Year 1	Year 2	Year 3
- recognise and count reliably with numbers 1-20 and place them in order - count objects reliably - say which number is one more or less than a given number - records using marks that they can interpret and explain	- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number - count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens - given a number, identify one more and one less - identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least - read and write numbers from 1 to 20 in numerals and words	- count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward - recognise the place value of each digit in a two-digit number (tens, ones) - identify, represent and estimate numbers using different representations, including the number line - compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs - read and write numbers to at least 100 in numerals and in words - use place value and number facts to solve problems	- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number - recognise the place value of each digit in a three-digit number (hundreds, tens, ones) - compare and order numbers up to 1000 - identify, represent and estimate numbers using different representations - read and write numbers up to 1000 in numerals and in words - solve number problems and practical problems involving these ideas

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Progression Through Addition and Subtraction

EYFS	Year 1	Year 2	Year 3
• using quantities and objects children add and subtract two single digit numbers and count on or back to find the answer • begin to use the vocabulary involved in addition and subtraction • identifies own mathematical problems based on own interests and fascinations	• read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including zero • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and	• solve problems with addition and subtraction: ◦ using concrete objects and pictorial representations, including those involving numbers, quantities and measures ◦ applying their increasing knowledge of mental and written methods • recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100	• add and subtract numbers mentally, including: ◦ a three-digit number and ones ◦ a three-digit number and tens ◦ a three-digit number and hundreds • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction • estimate the answer to a calculation and use inverse operations to check answers • solve problems, including missing number problems, using number

	missing number problems such as $7 = \square - 9$.	- add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers - show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot - recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	facts, place value, and more complex addition and subtraction.
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Progression Through Multiplication and Division

EYFS	Year 1	Year 2	Year 3
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solve problems involving doubling halving and sharing	Solve one step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers - calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication ($\times$), division ($\div$) and equals ($=$) signs - show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables - write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods - solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.
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Progression Through Fractions

EYFS	Year 1	Year 2	Year 3
solve problems involving doubling halving and sharing	recognise, find and name a half as one of two equal parts of an object, shape or quantity	recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity	recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10

	recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of two quarters and one half.	- recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators - recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators - recognise and show, using diagrams, equivalent fractions with small denominators - add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] - compare and order unit fractions with the same denominator - solve problems that involve all of the above.
<u>Progression Through Measurement</u>			
EYFS	Year 1	Year 2	Year 3

• use everyday language to talk about size, weight, capacity, distance, time and money • compare objects and quantities and solve problems • order two or three items by length, weight, height and capacity ○ orders and sequences three events within a day	• compare describe and solve practical problems for: - lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half] - mass/weight [e.g. Heavy/light, heavier than, lighter than] - capacity and volume [e.g., full/empty, more than, less than, half, quarter, half full] - time [e.g. quicker, slower. Earlier, later] • measure and begin to record the following: - lengths and heights - mass/weight - capacity and volume - time (hours, minutes, seconds) • recognise 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, evening]	○ choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels ○ compare and order lengths, mass, volume/capacity and record the results using >, < and = ○ recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value ○ find different combinations of coins that equal the same amounts of money ○ solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change ○ 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	• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • measure the perimeter of simple 2-D shapes • add and subtract amounts of money to give change, using both £ and p in practical contexts • 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, a.m./p.m., 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].
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	- 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 the clock face to show these times.	clock face to show these times know the number of minutes in an hour and the number of hours in a day.	
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Progression Through Geometry Properties of shape

EYFS	Year 1	Year 2	Year 3
- recognise, create and describe patterns - explore the characteristics of everyday objects and shapes 2-D/3-D and use mathematical language to describe them	- recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes),	- identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line - identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces - identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a	- draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them - recognise angles as a property of shape or a description of a turn - identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle

	pyramids and spheres].	cylinder and a triangle on a pyramid] compare and sort common 2-D and 3-D shapes and everyday objects.	identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
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Progression Through Geometry Position and Direction

EYFS	Year 1	Year 2	Year 3
children use everyday language to talk about position and direction	describe position, direction and movement, including whole, half, quarter and three-quarter turns.	- order and arrange combinations of mathematical objects in patterns and sequences - use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	

Progression Through Statistics and Probability

EYFS	Year 1	Year 2	Year 3
		• interpret and construct simple pictograms, tally charts, block diagrams and simple tables • ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • ask and answer questions about totaling and comparing categorical data.	• interpret and present data using bar charts, pictograms and tables • solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.



Inclusive Practice

Maths Graduated Response Provision Map

- Use of ICT to encourage engagement and motivation with relevant Apps. Eg. Minute maths, number bonds
- Build on pupils' preferred learning styles when explaining mathematical concepts, by the use of different media – e.g. stories, models, computer simulations, animations, videos
- Repetition of daily activities and number skills Addition, Subtraction, Multiplication Division, Number bonds, appropriate to the pupil
- Use of Now and Next Folders that can lead to tasks being completed independently using adapted worksheets (more visual, lower number range etc)

Individualised

- Pre teach prior to lesson of the day's learning- looking at vocabulary, adult modelling examples of calculations.
- Explicit number of questions to be completed in a given time
- Sensory/movement breaks if required, ensure identified children have over learning of **the concrete, pictorial, abstract method, (CPA)**
- Use of scaffolds and teacher verbal explanations
- Worksheets adapted so that the mathematical skill is being practiced and not the secretarial skills of presentation, concrete equipment or pictorial representations are first modelled by adults for individuals to then use to aid with independence.
- Universal equipment and targeted equipment such as Numicon, cubes, counters, & base 10 for identified individuals.
- Staff to be clear on what preferred method of calculation children prefer: e.g. counting on/ back, using pictorial representations of base 10, part-part whole, bar model, blank number lines, column method
- Daily intervention to consolidate mathematical concepts & address misconceptions either in a group or individual

Targeted

- Whole class working on the same materials and tasks
- Use of visuals when learning new vocabulary with symbols, pictures and an example of the calculation for illustration.
- Focus on core vocabulary and make sure there are lots of opportunities for oral application explicitly making links between previous learning and existing knowledge. eg Maths Tool kit (what I already know, number facts – making connections)
- Teacher shares and models the process out loud at each step, ensure equipment is fully accessible and adapted for individuals or groups as needed- base 10, cubes, 100 squares, number lines, use **Concrete, Pictorial Abstract method (CPA)**.
- Repeated learning- what have we been doing this week? What did we learn to do yesterday? Verbal feedback by Teacher to individuals during the lesson and when marking.
- IWB to be resources to be dyslexia friendly – pale blue or beige background and a Comic sans/Arial font.
- Worksheets to be simple, clear and appealing and opportunities given to record understanding in different ways: pictorial, written, video recordings, verbal explanations and photographs.
- Provide calm learning environment with opportunities for maths talk with learning partners, nurture a growth mind set attitude in maths (I can't do it... yet), develop a positive attitude and develop an enjoyment and love of learning in maths. Develop a culture of its ok to make 'Marvellous mistakes' – that's how we learn.
- Adults to encourage children who are struggling/ find it hard to engage in new concepts by providing modelling, scaffolding, verbal prompting and demonstrating the new skill.
- Over-teaching of key vocabulary
- Thinking time (10 seconds) given to all
- Immediate addressing of misconceptions via oral feedback throughout lesson to individuals.
- Movement breaks
- Pupils to rehearse mental maths skills number bonds, addition, subtraction, division, multiplication skills on individual white boards or maths jotters
- Flexible groupings
- Working walls

Universal

Examples of planning at Hursthead Infant School

Reception

Subject knowledge

This week, the children will consolidate their understanding of the composition of numbers by investigating the numbers within 7. Composing and de-composing numbers involves the children investigating part-part-whole relations, e.g. seeing that 7 can be made of 5 and 2. The children will deepen their understanding of a whole being made up of smaller parts through games and practical experiences, such as investigating the number of ducks on a pond. They will begin to recognise that numbers can be made by combining parts in different ways, and will be encouraged to make links by considering similarities and differences in the various ways of making 7. A key focus will be on partitioning 7 (splitting it into parts) and thinking about the missing part.

Connections

The children will already have experience of subitising small quantities and will use their existing skills to identify the numbers within 7. They will have previously made towers of blocks and patterns of 5 and 6 in different ways, and will begin to recognise the numbers that combine to make 7.

When the children can compose and flexibly de-compose numbers mentally, they will become more fluent in their knowledge of number bonds and they will be able to use these to become efficient when calculating in Key Stage 1 and Key Stage 2.

Session 2	Children will: • investigate ways of making 7 with two parts • use their fingers to make and describe 7 as '5 and 2 more'.
Revisit	Display slide 17 of the presentation, which shows Numberblock Seven. <i>Who can remember who this is?</i> <i>What do you notice? (e.g. "The 7 numberling" (the number that appears above the Numberblocks' heads) / "7 coloured blocks – like a rainbow." / "7 colours on the hat.")</i>

Teach and practise	<i>Let's try to make Numberblock Seven from interlocking cubes/blocks/squares of card! We don't have enough colours to make a rainbow, but we can use 2 colours to make our Sevens. Work with a partner to make your Numberblock Seven.</i> When the children have made their Numberblock Sevens, allow them time to discuss the result. <i>Let's look at [child's name] and [child's name]'s 7. What have you used? How many of each colour do you have? Can you show me on your fingers? [If necessary, support the modelling of the two groups on 2 hands.]</i> <i>Is it still 7? How do you know? Can everyone show me this way of making 7 on your fingers?</i> Finish the session by building your own Numberblock Seven using interlocking cubes. Make your Seven from 5 cubes in 1 colour and 2 cubes in another colour. <i>Have I made Numberblock Seven? How do you know?</i> <i>What's the quickest way to show my 7 on your fingers? [Model the '5 and a bit' way.]</i> <i>Can you show 7 like this?</i> Use the generalised statement: 7 is made of 5 and 2. [Use gestures to emphasise the different parts.] <i>What if I add 1 more cube to my tower? Is it still 7?</i> <i>Why not?</i>
Resources	Interlocking cubes, blocks or squares of card in 2 different colours, to make Numberblock Seven [you can use a range of different resources but ensure there is enough for each pair of children to have 7 of the same resource between them] 7 interlocking cubes [5 in one colour and 2 in another, for the teacher]

Add or subtract 1 or 2



Notes and guidance

In this small step, children focus on adding 1 or 2 in a variety of different contexts. They combine all the methods and approaches they have seen so far in this block.

The main difference between this learning and the previous learning is that children need to decide for the first time whether the question is an addition or a subtraction. So far, they have only seen each skill in isolation.

Encourage children to make connections between adding/subtracting 1 and adding/subtracting 2. It is important that they recognise that adding 2 is the same as adding 1 twice, and similarly subtracting 2 is the same as subtracting 1 twice. This will help children to be secure in their understanding of the composition of 2

Things to look out for

- Children may not understand what the question is asking.
- Children may be overwhelmed by the context of the question and find this difficult, rather than the maths itself.
- When adding/subtracting, children may start counting on the first number, for example incorrectly finding that $5 - 2 = 4$, because they count "5, 4".

Key questions

- How many are there at first?
- Do you need to add or subtract? How do you know?
- How many do you need to add or subtract?
- What is 1 more/less than _____?
- What is 2 more/less than _____?
- What is the same about adding/subtracting 1 and adding/subtracting 2? What is different?

Possible sentence stems

- 1 more/less than _____ is _____
- 2 more/less than _____ is _____
- To add 2, I can add 1 _____ times.
- To subtract 2, I can subtract 1 _____ times.

National Curriculum links

- Read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs
- Represent and use number bonds and related subtraction facts within 20
- Add and subtract 1-digit and 2-digit numbers to 20, including zero

Add or subtract 1 or 2

Key learning

- Tom has these cakes.



- ▶ Ann has 1 more cake than Tom.
How many cakes does Ann have?
- ▶ Sam has 1 cake fewer than Tom.
How many cakes does Sam have?

- Max has these stickers.



- ▶ His mum gives him 1 more sticker.
How many stickers does Max have now?
- ▶ His mum gives him 1 more sticker.
How many stickers does Max have now?
- ▶ How many stickers has Max's mum given him altogether?
Write an addition sentence.

- Mo has these sweets.



- ▶ He eats 1 sweet.
How many sweets does he have left?
- ▶ He eats another sweet.
How many sweets does he have left?
- ▶ How many sweets has Mo eaten altogether?
Write a subtraction sentence.

- There are 9 cars in a car park.

One of the cars is red.

How many cars are **not** red?

Write a number sentence.



- There are 8 people on a bus.

2 more people get on the bus.

How many people are on the bus now?

Write a number sentence.



Add or subtract 1 or 2

Reasoning and problem solving

Tiny is adding 2



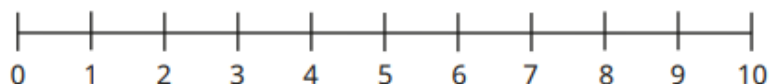
To add 2,
I can just add 1 and
then add another 1

Is Tiny correct?

How do you know?

Yes

Here is a number line.



Use the number line to work out the subtractions.

$$7 - 2$$

$$7 - 1 - 1$$

What do you notice?

5, 5

Kim, Ron and Sam have
some crayons.



Kim

I have
5 crayons.

I have
1 more crayon
than Kim.



Ron



Sam

Kim has
1 more crayon
than me.

How many crayons does Ron have?

How many crayons does Sam have?

How many more crayons does Ron
have than Sam?

6

4

2

Add two 2-digit numbers (not across a 10)

Notes and guidance

This small step brings together all the learning on addition from earlier in the block, with children adding two 2-digit numbers composed of both tens and ones. The calculations in this step do not require children to make an exchange, as this will be covered explicitly at a later point.

Base 10 is a useful manipulative to support children with the learning in this step. Encourage them to set their numbers out in an organised way, for example one above the other with the tens together and the ones together. Setting them out in this way will support children later when they look at the column method for addition. While it will be tempting for children to consider the tens first, as they are used to working from left to right, encourage them to first consider how many ones they have altogether before looking at the tens. This will help to prevent misconceptions later in the block, when performing exchanges.

Things to look out for

- If children do not set out their concrete resources in an organised way, they may make numerical errors.
- Children may add the tens first, then the ones. While this will work for these questions, it will hold them back in later steps.

Key questions

- What numbers are you adding together?
- How many ones are there in each number?
- How many ones are there altogether?
- How many tens are there in each number?
- How many tens are there altogether?

Possible sentence stems

- _____ ones + _____ ones = _____ ones
_____ tens + _____ tens = _____ tens
- There are _____ ones altogether.
There are _____ tens altogether.
_____ tens and _____ ones is _____

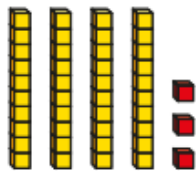
National Curriculum links

- Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a 2-digit number and 1s, a 2-digit number and 10s, two 2-digit numbers and adding three 1-digit numbers

Add two 2-digit numbers (not across a 10)

Key learning

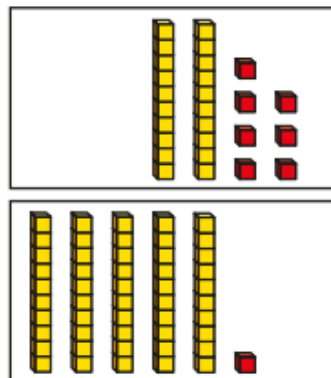
- Ann uses base 10 to make a number.



- What is Ann's number?
- Ann adds 4 more ones.
What number does she have now?
- Ann then adds 1 more ten.
What number does she have now?
- What has Ann added altogether?

- Here are two numbers in base 10

- How many ones are there altogether?
- How many tens are there altogether?
- What is the total of the two numbers?



- Use base 10 to work out the additions.

$52 + 14$	$23 + 31$	$37 + 22$
$78 + 11$	$42 + 27$	$63 + 35$

- Jo and Ron each have some balloons.



Jo

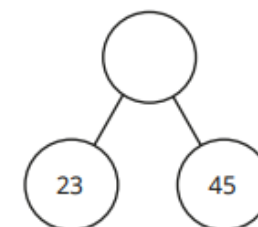
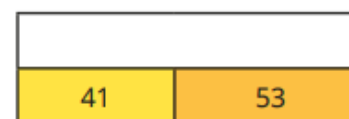


Ron



How many balloons do they have in total?

- Work out the wholes.



Add two 2-digit numbers (not across a 10)

Reasoning and problem solving

Ron has these grapes.



Teddy has 25 more grapes than Ron.
How many grapes does Teddy have?

39

Sam and Max have some marbles.



Sam

I have 12
marbles.

I have 13
more marbles
than Sam.



Max

How many marbles do they
have altogether?

37

Tiny is working out the
missing number.

$$57 = 42 + \square$$



The missing
number is 99

Explain the mistake Tiny
has made.

What is the missing number?

15

What could the missing digits be?

$$\underline{\quad}2 + \underline{\quad}5 = 87$$

How many different answers
can you find?

multiple possible
answers, e.g.

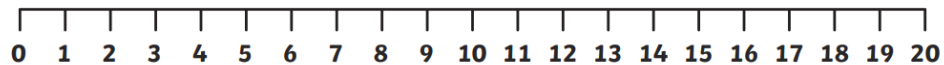
1 and 7

5 and 3

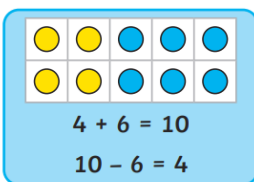
Year 1 Maths Mat

Addition and Subtraction

Knowledge Organiser

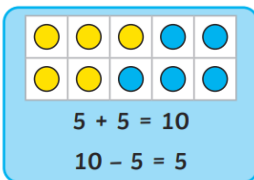
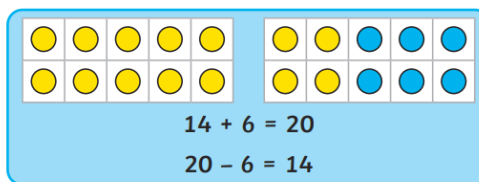


Number Bonds

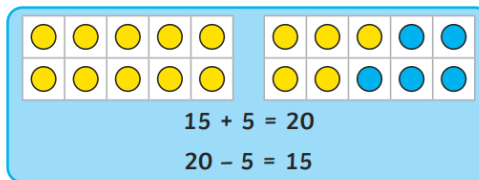


$$4 + 6 < 14 + 6$$

$$14 = 20 - 6$$

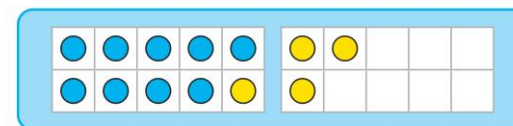
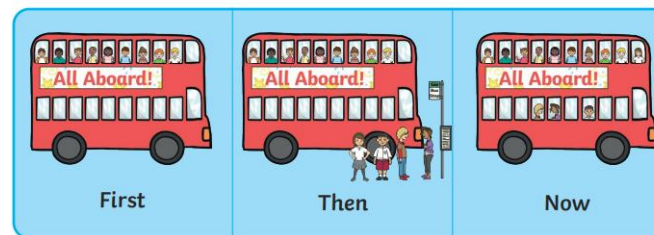


$$20 - 5 > 20 - 6$$



Addition and Subtraction

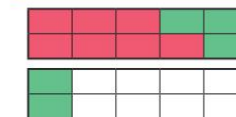
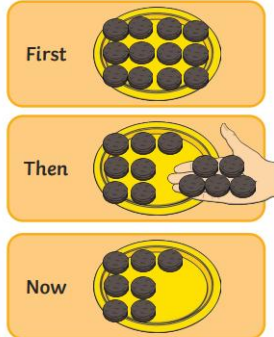
Knowledge Organiser



I partitioned 4 into 1 and 3.

$$9 + 1 = 10$$

$$10 + 3 = 13$$



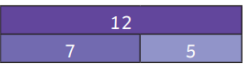
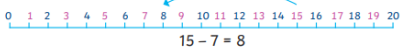
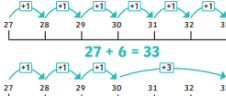
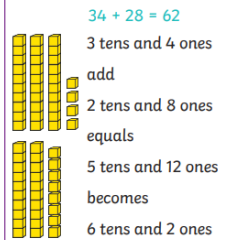
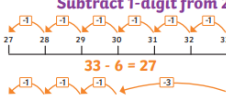
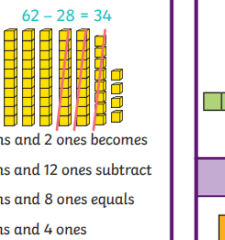
I partitioned 5 into 2 and 3.

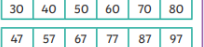
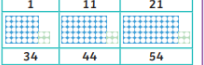
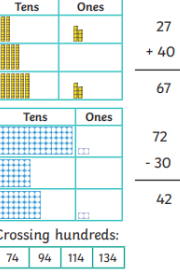
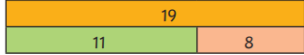
$$12 - 2 = 10$$

$$10 - 3 = 7$$



Year 2 Maths Mat

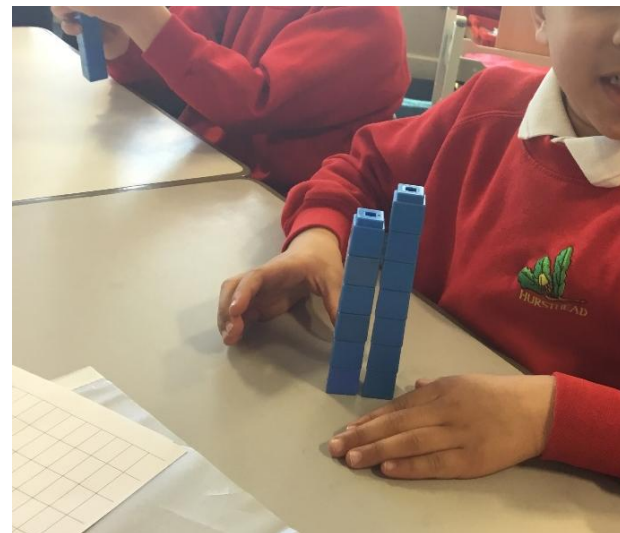
Addition and Subtraction		Knowledge Organiser	
Key Vocabulary	Addition and Subtraction Bonds to 20		
Add	 $15 + 5 = 20$ $20 - 5 = 15$ $20 - 15 = 5$		
Total	 $7 + 5 = 12$ $12 - 5 = 7$ $12 - 7 = 5$		
Make	 $4 + 3 = 7$		
Plus	 $15 - 7 = 8$		
Sum			
More			
Altogether			
Difference			
Leave			
Subtract			
Difference between			
Less			
Minus			
Take away			
Mentally, Orally			
Column Addition			
Column Subtraction			
Estimate			
Inverse operation			
Solve problems			
Number facts			
Place Value			
Methods			
Add 2-digit and 1-digit		Add 2-digit numbers	
 $27 + 6 = 33$		 $34 + 28 = 62$ 3 tens and 4 ones add 2 tens and 8 ones equals 5 tens and 12 ones becomes 6 tens and 2 ones	
Subtract 1-digit from 2-digit		Subtract 2-digit numbers	
 $33 - 6 = 27$		 $62 - 28 = 34$ 6 tens and 2 ones becomes 5 tens and 12 ones subtract 2 tens and 8 ones equals 3 tens and 4 ones	
Addition and Subtraction Bonds to 100			
$2 + 8 = 10$ so $20 + 80 = 100$			
$32 + 68 = 100$ 3 tens and 2 ones + 6 tens and 8 ones = 9 tens and 10 ones = 10 tens = one hundred			

Addition and Subtraction		Knowledge Organiser	
Mental Methods	More or Less/ Add and Subtract 1s and 10s		
Compare Number Sentences	Add and subtract 1s		10 More or Less
 $6 + 4 < 6 + 5$ $5 + 3 = 6 + 2$ Related facts $5 + 4 = 9$ so $50 + 40 = 90$ Add 3 1-digit numbers $9 + 5 + 3 = 17$	$24 + 1 = 25$ $24 + 2 = 26$ $24 + 3 = 27$ $37 - 1 = 36$ $37 - 2 = 35$ $37 - 3 = 34$		
	 There are 7 flowers in a vase. One more is added. Now there are 8 flowers.		 The ones digit stays the same.
	 Take care when crossing hundreds:		 Add and Subtract 10s
Check Calculations			
 $19 - 8 = 11$ can be checked using $8 + 11 = 19$		$32 + 5 = 82 \times$ Spot that 5 tens have been added not 5 ones $28 - 26 = 12 \times$ Spot that 28 and 26 are very close together, so difference won't be 12.	
		$37 - 4 = 41 \times$ Spot that if subtracting 4 the answer will be smaller. $68 - 40 = 64 \times$ Spot that 4 ones have been subtracted and not 4 tens.	

Examples of Maths work



EYFS – Numberblocks ordering 1-10



EYFS – one more/ one less



EYFS – Composition of 5

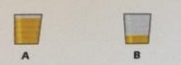


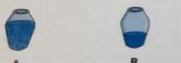
EYFS – staircase patterns outdoors

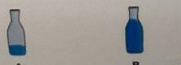
Date: 4.3.25 Name: Jessica (5)

I can compare volume.

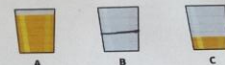
1 Write more or less to complete the sentences.

a) 
A has more juice than B.

b) 
A has more water than B.

c) 
A has less water than B.

2 Glass A has more juice than glass B.
Glass C has less juice than glass B.


Draw to show how much juice could be in glass B.

3 Show the volume in each glass.

- A is nearly full.
- B is nearly empty.
- A has more than C.
- C has more than B.



Yr 1 – Measurement- capacity

Date: 8.1.25 Name: Jessica (5)

I can find and make number bonds to 20.

1 Complete the additions to match the ten frames.

a)  $2 + 8 = 10$ ✓
 $2 + 18 = 20$ ✓

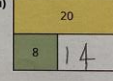
b)  $3 + 7 = 10$ ✓
 $3 + 17 = 20$ ✓

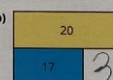
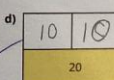
2 Complete the number bonds.

a) $4 + 6 = 10$ c) $10 = 11 + 1$
 $4 + 16 = 20$ $20 = 12 + 8$

b) $5 + 5 = 10$ d) $10 = 3 + 17$
 $5 + 15 = 20$ $20 = 7 + 13$

3 Complete the bar models.

a)  c) 

b)  d) 

Yr 1 - Calculations- number bonds

Date: 13.3.25 Name: Amelia

I can use the 4 operations with volume and capacity.

Four operations with volume and capacity

1 a) What is the volume of water in each beaker?

 
30 ml 40 ml

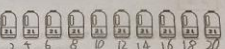
b) How much more water is there in beaker B than in beaker A?

10 ml

c) What is the total volume of water?

70 ml

2 How much milk is there in each set of cartons?

a)  20 ml

b)  20 ml

What do you notice?
They both have the same answer.

3 A teaspoon holds 5 ml.
Ann pours 5 teaspoons of juice into the beaker.
Draw a line to show where the juice reaches.



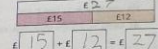
Yr 2 – Measurement- capacity

Date: 16.1.25 Name: Tommy

I can solve 2 step problems.

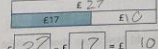
Two-step problems

1 Sam has £15.
Her mum gives her another £12.
a) How much money does Sam have now?
Complete the bar model and the number sentence.

 $£15 + £12 = £27$

b) Sam buys this teddy.


How much money does she have now?
Complete the bar model and the number sentence.

 $£27 - £17 = £10$

2 Tom has two £10 notes.
He buys a hat for £12.
How much money does he have now?

 $£10 + £10 - £12 = £8$

3 Jo has a £20 note.
a) Jo spends £7 on a cinema ticket.
How much change does she get?

 $£20 - £7 = £13$

b) Jo's mum gives her another £3.
How much money does Jo have now?

 $£13 + £3 = £16$

Yr 2 – Calculations- two-step problems

Our whole school Maths Display



Pupil Voice

“I like subistising.”

“I love learning with the Numberblocks.”

“I love solving problems.”

“I love using the Rekenrek to help me work out the answers.”

“I like using my number facts knowledge to solve problems and calculations”

“I like the challenge of working through problems”

“I think times tables are fun and I like playing games to help me learn them”



CPD

This can take many forms including but not limited to: staff meetings, attendance at subject leader meetings, maths specific training linked to phases/year groups. Engagement in this training allows for the development of staff confidence, knowledge and curriculum coverage across the school.

Lead teachers in each year group attend termly Maths Hub NCTEM online training and feedback to staff.

Amy Wickens has attended the EYFS Maths Subject Knowledge program for the last 2 years.

All staff also have access to the White Rose CPD Webinars and also topic based CPD videos.

https://whiteroseeducation.com/professional-development/webinars?_page=1

All staff can also access curriculum CPD and resources through Twinkl.

<https://www.twinkl.co.uk/resources/twinkl-cpd>

Governors are also kept up to date with any changes made to the maths curriculum through presentations by the subject coordinator and regular visits into school.