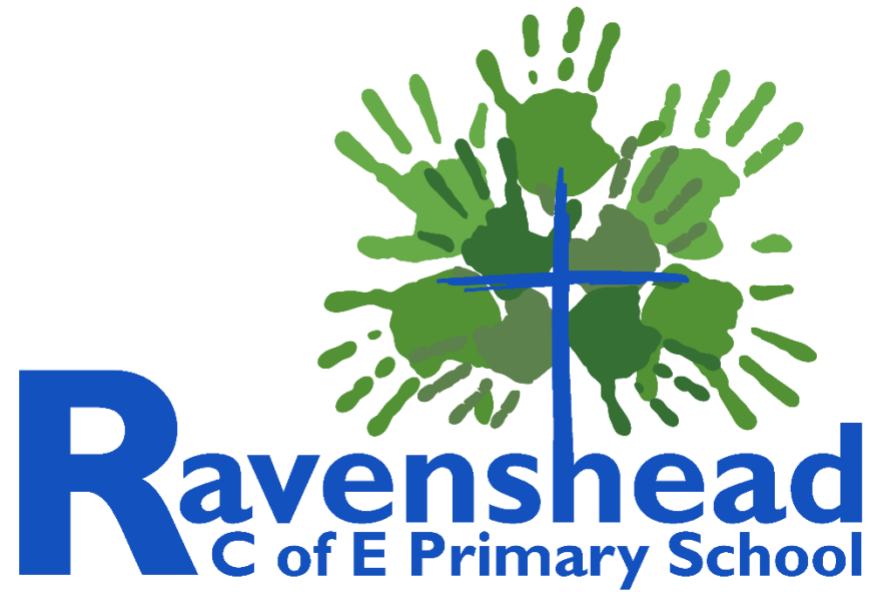




EYFS Calculations Policy

October, 2025.

Our School Vision

Our school vision is based on the theme of '***Taking Care***'. We strive to encourage our children, staff and wider community to 'take care' of one another through the core Christian Values of:

Kindness, Hope, Courage and Respect.

Our vision is inspired by the words in Corinthians:

“Let love and kindness be the motivation behind all that you do.”

(1 Corinthians 16.14)

Ravenshead C of E Primary School is committed to valuing diversity and to equality of opportunity. In biblical tradition, children in particular are seen to hold a special place in the priorities of God. Furthermore, we hold to the foundational belief that all people are created in God's image and are intrinsically valuable. Everyone should be treated as fundamentally precious, irrespective of behaviour, achievements or potential.

Therefore, we aim to create and promote an environment in which pupils, parents/carers and staff are treated fairly and with respect and feel able to contribute to the best of their abilities. The school's biblical foundation provides a model of Christian community described as the 'body of Christ', in which everyone has a part to play, and everyone without exception has God-given gifts which are to be used for the benefit of others.

“Every child deserves the best possible start in life and support to their full potential. A child's experience in the early years has a major impact on their future life chances. A secure safe and happy childhood is important in its own right, and it provides the foundation for children to make the most of their abilities and talents as they grow up. When parents choose to use early years services they want to know the provision will keep their children safe and help them to thrive. The Early Years Foundation Stage is the framework that provides that assurance.”

Early Learning Goals:

Number. Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

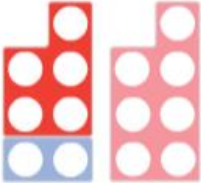
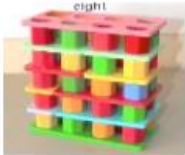
Numerical Patterns. Children at the expected level of development will:

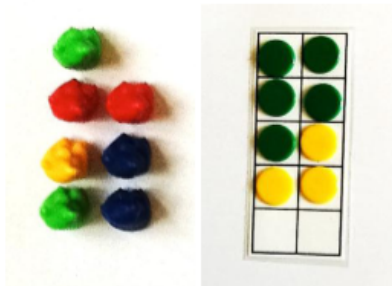
- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; 27
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Pre-requisite skills	Associated skills
Understanding number, developing number sense, counting and estimating • Begin to identify own mathematical problems based on own interests. • Talk about the mathematics they are doing, using number names and number language spontaneously in play • Recognise and talk about simple patterns in the environment • Begin to represent numbers/quantities using fingers, objects, marks on paper • Sort and match objects by shape, colour, size or other common property • Pair objects 1-1 and begin to use the language 'as many as', 'the same as', 'more than', 'fewer than' in context. • Compare 2 groups of objects, identifying when they are the same • Order a set of objects by length, height or size, using positional language such as 'next to', 'after', 'before', 'between' and language of measurement 'longer/taller/bigger/shorter/smaller than'. • Count with 1-1 correspondence to at least 5 objects • Know that: ◦ the last number said in a count identifies how many objects are in a set ◦ the total number of objects in a set remains the same no matter which order they are counted • Count forwards and backwards to at least 10 and beyond. • Finds the total number of items in two groups by counting all of them. • Count out a specified number of objects from a collection • Recognise the Numicon shapes for 1-10 without counting the holes • Recognise and name numerals 1-5 • Select the correct numeral to represent 1-5, then 1-10 objects • Match numerals 1 to 10 with structured imagery e.g. Numicon shapes, ten frames or dice patterns. • Represent numerals to 10 using structured imagery e.g. Numicon shapes and patterns on ten frames • Say and use number names in order • Arrange objects into structured patterns e.g. pair-wise patterns when counting objects • Develop strategies for reliable counting such as counting from one set to another or arranging in pair wise patterns • Use the language of more/less to compare 2 sets of objects and then numerals • Identify the number after any number up to 9	Understanding number, developing number sense, counting and estimating • Recognise that numbers can be used in different ways and have experience of numbers beyond their number range in context • Count with 1-1 correspondence reliably to 10 then 20 objects, using strategies such as arranging in pair-wise patterns either making Numicon patterns or placing objects in tens frames • Count forwards and backwards to 30. • Counts actions or objects which cannot be moved. • Recognize quantities up to 4 without counting (subitising) • Use ordinal numbers in different contexts • Recognise patterns within the number system up to 20 e.g. that the next number in the counting sequence is 1 more than the last number; that teens numbers follow the same patterns as numbers up to 10. • Sort a variety of objects according to given criterion and then to own criterion • Recognise, name and write numerals to 10 (then 20). • Begin to generalise in relation to number e.g. use number names as nouns and not just adjectives "3 and 5 equals 8", instead of 3 sweets and 5 sweets equals 8 sweets?" • Recognise, name and make teens number using apparatus e.g. Numicon 10 and appropriate unit. • Can make a reasonable estimate of how many objects they can see and checks by arranging in a Numicon pattern. • Using a benchmark as a guide, suggest a reasonable estimate for a collection of objects the total of which is within the child's number range • Record mathematical tasks informally using numerals, diagrams, Numicon shapes/patterns or other structured images • Compare and order numerals to 10 (then 20) using appropriate language e.g. more/less, bigger/smaller • Use language greater, smaller, heavier, lighter to compare 2 quantities • Compare and order numbers to 10 using appropriate language e.g. more/less, bigger/smaller • Find 1 more/less than a number from 1-10

Number facts

Demonstrate part/whole knowledge of numbers up to 10, e.g. by using Numicon shapes to show ways of making 7.
 Begin to develop mental recall of part/whole relationships of numbers up to and including 5, then up to and including 10

ADDITION	OPPORTUNITIES FOR PROBLEM SOLVING	SUBTRACTION
Addition calculations in EYFS should always be context led Sing counting songs such as One Little Elephant  When using apparatus, show an awareness that numbers can be combined to make a larger one. Combine Numicon shapes with a total no greater than 10 and say the total without counting.  Build number bonds using Numicon shapes and identify the different ways of making any number up to and including 10.  When finding the total of 2 groups of objects, arrange in pair-wise patterns e.g. Numicon patterns or ten frames	Separate a group of up to 4 objects in different ways, beginning to recognize that the total stays the same Partition numbers in different ways - Use Numicon to explore different ways of making a number e.g. making 8 using a 3 and a 5, or a 4, 3 and 1. When playing skittles/target games, talk about how many skittles are standing up and how many have been knocked down, or how many bean bags went in the bucket and how many didn't. represent this in different ways – Numicon shapes, ten frames, fingers on hands  Use the language of arithmetic in a number story e.g. more, take away, makes, altogether, left, equals etc) Know when to use addition in everyday contextual situations and when solving mathematical problems. Know when to use subtraction in everyday contextual situations and when solving problems. Use Numicon shapes and patterns to develop understanding of the relationship between addition and subtraction, e.g. 5 and 3 makes 8 and 8 take away 3 leaves 5. Make a reasonable estimate for the total number of objects in a collection. If we put the 6 blue pencils with the 8 red pencils, do you think there will be more or fewer than	Subtraction calculations in EYFS should always be context led Sing counting songs such as Five Little Speckled Frogs  Identify different Numicon patterns within Numicon shapes e.g. see the 4 pattern and 3 pattern within the 7 shape.  When using apparatus, show an awareness that subtraction from a number results in a smaller number. Tell own subtraction stories prompted by classroom activities e.g. use small world people to tell a story about children playing in a playground.  8 take away 3 = 5 3 less than 8 = 5 Recognise subtraction in stories involving partitioning and decrease (take



Tell own addition stories prompted by classroom activities e.g. use small world people to tell a story about children playing in a playground.

Identify different combinations of objects to match a given total e.g. 3 cows and 2 pigs or 1 cow and 4 pigs in a pen, arranging 5 ladybirds on 2 leaves

Recognise addition in stories involving the addition structures of 'altogether' and 'increase'.

'There are 4 blue buttons and 3 red buttons in this box. That makes 7 buttons altogether'

"Jenny has 5 sweets and Zara gives her 3 more. Now she has 8 altogether."

Demonstrate and respond to addition stories by choosing the appropriate Numicon shapes, saying the number sentence and identifying the total without counting.

Respond to addition questions by combining Numicon shapes and saying the total without counting using the appropriate language of addition e.g. '3 more than 6 is 9'.

Show with apparatus that addition can be done in any order.

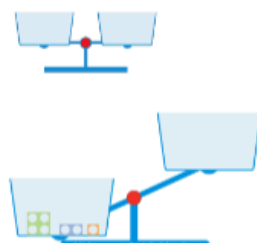
$$4 + 3 = 3 + 4$$

10..... more or fewer than 20?

Grab a handful of Numicon pegs. Estimate how many. Check by placing pegs onto tens frame or Numicon tens. Grab two handfuls of pegs. Estimate how many altogether.

Use a pan balance with Numicon shapes to explore addition and subtraction

Choose some shapes to put in each pan to make the scales balance



Which shapes will make the scales balance? Can you find another way?

One child chooses some shapes to put in one pan. Partner has to find different shapes for the other pan to make the scales balance. Ensure children can use the appropriate language before suggesting recording.

NRICH activities:

Number Rhymes

Maths Story Time

away).

There were 7 crocodiles in the river. 3 climbed out on to the bank. That left 4 in the river.

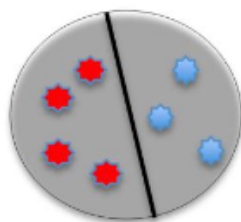
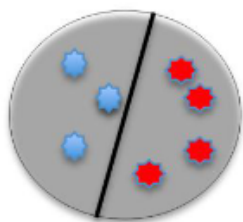
Baby Bear had 7 sweets but Mummy Bear ate 3 of them. Now he's got 4 sweets left.

Respond to the subtraction structures of partitioning and decrease (take away/fewer) in stories using either a subtraction cover, by covering the appropriate holes on a Numicon shape with fingers or partitioning linking cubes.



Use Numicon to compare 2 numbers e.g. 6 is greater/more than 4.





The difference between
8 and 5 is 3
How many more than 5
is 8?

Use Numicon to
show the numerical
difference between
2 numbers

8 is 3 more than 5.

Demonstrate and respond to subtraction stories by
choosing the appropriate Numicon shape and identifying
the answer without counting.

My pencil case has 5
blue and red pencils.
If 3 of my pencils are
blue, how many are
red?

Jason baked 6
buns and gave 4 to
his friends. Now
there are 2 left

Respond to subtraction
questions such as 'What is 5 take away 3?' and 'Can you
show me 2 less than 7 with Numicon?' using the
appropriate shapes. Identify the answer using the
appropriate language of subtraction e.g. '3 less than 5 is 2
and without counting back in ones.

Notes;

In EYFS, children record their calculations informally using diagrams, words and numerals. Formal recording of calculations e.g. number sentences such as $4 + 3 = 7$ and $8 - 5 = 3$ should only be introduced once children have demonstrated all of the skills in the addition and subtraction sections above through action (e.g. using concrete resources), use of the appropriate language and informal recording.

Pre-requisite skills

- Can sort and match objects and pictures
- Can separate a group of objects in different ways (eg find different ways of making 7)
- Can count in 1's to 10
- Can order numbers to 5

Associated skills

- Can count in 1's to 20 and then 30
- Can order numbers to 10 then 20
- Rote count in 2s, 5s and 10s and link to counting repeated groups of the same size e.g pairs of socks, fingers on one hand, fingers on 2 hands, or corresponding Numicon shapes
- Can say the number 1 more/1 less than a given number within number range
- Use objects to add/subtract 2 single digit numbers
- Can recognise when groups of objects are not equal eg one is more than the other.
- Recognise and explain simple repeating patterns in the environment, including shape, colour (e.g. ab, ab)

Number facts**MULTIPLICATION**

Sort objects into equal groups of 2's, 3's.
Put animals in 2's to go into the Ark, socks/shoes in pairs, find sets of 4 wheels to make toy cars, find sets of Numicon shapes, find sets of 6 objects to fill egg boxes



*Can you sort the socks into pairs?
How many pairs do we have?*

Let's see if we have enough wheels to make 3 cars

OPPORTUNITIES FOR PROBLEM SOLVING

Practical problems involved groups and sharing incorporated into continuous provision and daily routines as well as specific focused maths activities e.g. arranging 5 spots on each ladybird or 3 ladybirds on each leaf., filling 3 egg boxes with eggs., sharing milk at break time.
Recording is child led/initiated

DIVISION

Can recognise when groups are equal



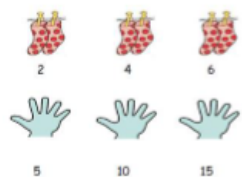
Can we share these cakes fairly? How would we do this? How do we know if it's fair?



Understands doubling as 2 groups of the same



Link to stories/songs such as The animals went in 2 by 2 or games involving throwing 2 dice: 'You got double 4. How many jumps can you make?'



Count objects in 2s, 10s and then 5s pairs of socks/shoes, hands. Link to finding out how many in a group e.g. how many fingers altogether when each child holds up both hands.

Show relationship between doubling and halving using a variety of apparatus



Double 3 is 6. Half of 6 is 3

Respond to instructions relating to sharing and grouping: 'If we share these 6 biscuits between 3 children, how many biscuits will each child get?'

Can you share the cherries so that everyone gets 3 cherries each?



Understand halving as sharing equally in 2 groups

Here are 6 sheep in a pen. Can you put half in the field and leave the rest in the pen

Can recognise when a shape/cake is not divided in 2 equally for example, one piece is bigger than the other.

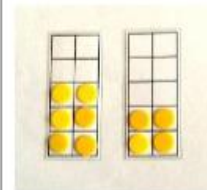


Are the pieces of cake equal? Which is the biggest piece?

Make an unequal group of objects equal



There are some bears playing in the sandpit and some bears playing on the swings. Can you make it so that there is the same number of bears playing in the sandpit and on the swings?



Can you move a counter so that there is the same number of counters on each ten frame ?