

EYFS Maths Curriculum



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Rode Heath Primary School – Early Years Foundation Stage – Mathematics

Intent

Our children will leave the Foundation Stage at Rode Heath Primary School having had many opportunities to develop their understanding of number (including the composition of numbers, number bonds and subitising), numerical patterns (including odds and evens and doubling), measurement, shape and space in a broad range of contexts in which they can explore, enjoy, learn, practise and talk about numbers and shapes. We encourage pupils to understand and respond to the symbols that represent numbers and what this means in real contexts. We support children in understanding what an important role shapes and numbers play in our everyday lives and how they develop our own understanding and help us to solve problems. We approach this area by fostering a love of number and the enjoyment of solving problems.

Implementation


In Reception our teaching of Maths reflects the White Rose Maths scheme for our extended Maths lessons, this is used as a planning tool, but we adapt according to the needs of our children. We also use the NCETM Mastering number scheme as a daily quick 10 minute session in the afternoons. Pupils explore maths, using mathematical vocabulary to reason and explain their findings. In Preschool our curriculum allows children to begin to learn the mathematic skills needed for Reception. They then use these skills to make better sense of the world around them, relating pattern between mathematics and everyday life. Teachers teach the skills needed to succeed in mathematics providing examples of good practice and having high expectations.

Throughout EYFS we create a rich environment, where talk for maths is a key learning tool for all pupils. There are opportunities for our children to explore and develop their mathematics throughout our learning environment, inside and outside. Adults are skilled at encouraging mathematical opportunities through children's play and will challenge where this is a focus for the child's next step.

Impact

All children are expected to succeed and make good progress from their starting points. They are competent with the skills of subitising and have developed number sense skills. Pupils can talk about number and explain what it is and isn't. They solve problems and make predictions about what might happen while using appropriate vocabulary. Our pupils apply their mathematical skills in a variety of contexts. They have a positive mind set about maths and making 'mistakes'.


Pre-School

|  Term | Number | Numerical Patterns | Shape, Space and Measure |
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| Autumn | <p>I can begin to say number names in nursely rhymes and songs, 1,2,3,4,5</p> <p>I know that I need to point with my fingers to help me to count things in a straight line to 3</p> <p>I can join in counting songs and clap or stamp up to 3 times</p> <p>I can join in a game counting thing that cannot be moved</p> <p>I can play games to collect objects and put them on a number line starting at 1, Say one number for each item in order: 1,2,3,4,5.</p> <p>Know that the last number reached when counting a set of objects tells you how many there are in total ('cardinal principle').</p> <p>I can explore number books, and books that have different amounts of objects to compare in pictures</p> <p>I can subitise to 2</p> | <p>I can Show "finger numbers' up to 2</p> <p>I am beginning to experiment with symbols and marks as well as forming the shape of numerals that I am familiar with</p> <p>I can begin to talk about which group has more things</p> <p>I can sort small things and large things and match them up</p> <p>I can find the equal numbers of things I can match on one-to one basis.</p> | <p>I can point to where a toy is hiding and begin to use, inside, on top and behind</p> <p>I can explore creating new shapes with construction and blocks</p> <p>I can build a simple model</p> <p>I am beginning to sort groups of objects according to colour</p> |

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| Spring | <p>I know that I need to point with my finger to help me to count things in irregular arrangements</p> <p>I am beginning to match a numeral with a number of things up to 3</p> <p>I am beginning to count out or 'give' 1 and then 2 things from a larger group</p> <p>I can place things in a straight line to help me to count each one with my finger</p> <p>I can explore forming number symbols by tracing wooden numerals, white board templates and number tiles</p> <p>I can begin to make predictions about what the outcome will be in stories, rhymes and songs if one is added to, or if one is taken away in songs to 3</p> <p>I can use puppets from stories to count and say the names of the numerals to 5</p> <p>I can join in counting songs and clap or stamp up to 5 times</p> <p>I can play all at once fingers' – show me 1,2, then 3 fingers.</p> | <p>I can experiment with their own symbols and marks as well as numerals.</p> <p>I can talk about and identify the patterns around me. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc.</p> <p>I can make different patterns with a given number of things</p> <p>I can find the equal numbers of things I can match on one-to-one basis</p> <p>I can change two unequal groups into two that have the same number, each doggie will need 3 treats from the play areas</p> <p>I can link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 3.</p> <p>I can see if 1 then 2 things have been taken away from a small group</p> | <p>I can begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'</p> <p>I can comment on objects in relation to weight, heavy and 'not heavy '</p> <p>I can comment on objects in relation to size; 'big and small' 'tall or short'</p> <p>I can comment on objects in relation to weight, heavy and 'not heavy '</p> <p>I can comment on objects in relation to capacity, full and 'not full'</p> <p>I can Select material with the correct shapes that I need to build a roof, a house, and realise surfaces are different</p> <p>I can combine shapes to make new ones</p> <p>I am beginning to discuss routes and locations, using words like 'in front of' and 'behind'</p> <p>I am beginning to continue and copy AB patterns</p> |
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| <p style="text-align: center;">Summer</p> | <p>I can to Subitise to 3 items.</p> <p>I can select a numeral to represent a quantity up to 5</p> <p>I can correct a puppet who thinks the amount has changed when their collection has been rearranged</p> <p>I can collect 3 from a large pile of teddies</p> <p>I can subitise a group that contains up to 3</p> <p>I can see that there we need to 'take one cake out the oven because we have one too many for the party'</p> <p>I can take part in outside games and can tell how many balls there are altogether in the bucket using 1:1 correspondence up to 5</p> | <p>I can see that nothing has been changed when the amount is the same but has been moved ariund</p> <p>I am beginning to see which group of objects has more</p> <p>I can compare two numbers and say which is the larger</p> <p>I am beginning to sing using number accuracy in rhymes and songs if one is added to, or if one is taken away in songs to5</p> <p>I am beginning to name of the numeral and match a group of objects</p> <p>I am beginning to see how many there will be if I add more take away one away up to 3</p> <p>I can notice when something is the odd one out in a pattern with natural materials</p> <p>I can explain unfair sharing - 'This one has more cakes or less on their plate when we should all get the same at the party</p> <p>I know that a number line starts with the numeral 1 and can order numbers up to 5</p> <p>I can compare quantities using language: 'more than, fewer than</p> <p>I am beginning to consistently recite the correct sequence of numbers up to 10 in songs</p> | <p>I can find or point to an object or shape that has straight sides, small or big, long, round</p> <p>I am beginning to say the name of some 2D shapes and point to straight lines and curved ones, and I know what a corner is</p> <p>I can understand first/next when listening to a story or flowing instructions in a game</p> <p>I can talk about the time of day passing</p> <p>I can explore 3D shapes in the environment and recognise straight lines and curved lines</p> <p>I can talk about where an object is using prepositional language, without pointing</p> <p>I can follow an instruction involving prepositional language in games etc</p> <p>I can make predictions about what will happen at the end of stories</p> |
| <p style="text-align: center;">Reception Readiness Indicators</p> | <p>I can subitise up to three objects.</p> <p>I can match more than 3 colours correctly</p> | <p>I can recite numbers to five and beyond.</p> <p>I can recognise numerals and match them to quantities of up to 3 objects.</p> <p>I can say one more/one less</p> <p>I can order numerals to 3 and beyond</p> | <p>I can use and understand language related to position.</p> <p>I can use and follow prepositional language</p> <p>I can talk about 2D and 3D shapes</p> <p>I can sort and categories objects by colour and size</p> |

Reception

|  Term | Number | Numerical Patterns | Shape, Space and Measure |
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| Autumn | <p>I am beginning to Subitise 1 to 3 items.</p> <p>I can represent 1 – 5 in a variety of ways e.g. on fingers, on a fives or tens frame, with objects, with Numicon, cubes, digits, tally, a picture, dots on dice, money. - Some exposure to number doubles e.g through Numberblocks, one and another one makes two.</p> <p>I can explain the composition of numbers (numbers within numbers) up to 5 with support of visual aids such as tens frames, cubes, objects and Numberblock characters.</p> <p>I can recognise parts within numbers. E.g. Look at 4 buttons and say “I can see a group of 2 and another group of 2”</p> <p>I can use a 5 frame model.</p> | <p>I can join in with number songs, attempting to represent numbers using fingers where appropriate.</p> <p>I can recite numbers to 10 or beyond.</p> <p>I can demonstrate an understanding that we use one number for each item, when counting.</p> <p>I can attempt to count objects, actions and sounds to 10 accurately.</p> <p>I can use and understand the term “more” in practical contexts.</p> <p>I am beginning to link each number to 5 with its cardinal number value.</p> <p>I know that the last number reached when counting is the total.</p> <p>I am beginning to understand the concept of 1 more and 1 less with concrete objects to 5.</p> <p>I can order numbers 1-5.</p> | <p>I can sort groups of objects according to different criteria e.g by colour, size and shape.</p> <p>I can describe the size or shape of real-life objects using simple mathematical vocabulary, e.g. big/little, large/small round/straight.</p> <p>I can name 2D shapes and explain their properties using mathematical language e.g sides, corners.</p> <p>I can select, rotate and manipulate shapes to develop spatial reasoning skills through learning through play.</p> <p>I can understand first/next.</p> <p>I am able to talk about the passing of time through own experiences.</p> <p>I am beginning to continue copy and create AB patterns.</p> <p>I can follow prepositional instructions through games and songs like Simon says, Hokey Cokey.</p> |

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| <p style="text-align: center;">Spring</p> | <p>I can subitise to 4.</p> <p>I am beginning to subitise amounts on a dice and on a tens frame.</p> <p>I can represent 5-10 in a variety of ways e.g. on fingers, on a fives or tens frame, with objects, with Numicon, cubes, digits, tally, a picture, dots on dice, money.</p> <p>I can discuss composition of numbers to 10, showing some automatic recall of number facts. E.g I can make 6 with $3 + 3$ or $4 + 2$.</p> <p>I can partition amounts into equal groups.</p> <p>I can use a tens frame model to represent numbers to 10 and some addition and subtraction number facts, with support.</p> <p>I am beginning to recall number bonds to 5 and some corresponding subtraction facts.</p> <p>I can use a part-part-whole model with concrete objects to partition and recombine an amount.</p> <p>I can combine 2 groups of concrete objects and am beginning to write addition number sentences with support.</p> | <p>To be able to make representations of number rhymes. <i>'Show me 5 current buns, but 1 is taken away.'</i></p> <p>I can recite numbers to 20 confidently.</p> <p>I can confidently count back from 10.</p> <p>I am beginning to count back from 20 with support and visual aid such as a number line.</p> <p>I can order numbers to 10.</p> <p>I can demonstrate understanding of the cardinal principle when counting objects.</p> <p>I can show accuracy when counting a group of up to 5/10 objects.</p> <p>I am beginning to compare numbers and quantities up to 10 using and understanding the terms more than, greater than, fewer, less than in practical contexts.</p> <p>I understand the term equal when comparing two groups of objects.</p> <p>I am beginning to understand the concept of 1 more and 1 less using a number line, to 10.</p> | <p>I can identify straight and curved sides on 2D shapes, and flat and curved faces on 3D shapes.</p> <p>I can use shapes to make pictures/models.</p> <p>I can use and understand the terms shorter/taller, larger/smaller. I can sequence 4 items according to these criteria.</p> <p>I can measure and compare length using non-standard measures.</p> <p>I can continue, copy and create AB, ABB and ABBC patterns.</p> <p>I am beginning to recognise some coins and their value.</p> <p>I can understand yesterday/today/tomorrow.</p> <p>I am beginning to recite days of the week and months of the year.</p> |
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| Summer | <p>I can confidently subitise rather than count small groups of objects.</p> <p>I can subitise to 5 using familiar concept images (e.g. a tens frame, with Numicon, on a dice, and using fingers.</p> <p>I can double numbers 1-5 confidently and begin to recall some double facts from memory.</p> <p>I can double numbers 1-10 using concrete objects.</p> <p>I can add 2 single digit numbers using known number facts or number line.</p> <p>I can write addition and subtraction number sentences.</p> <p>I can recall number bonds to 5 automatically and some number bonds to 10.</p> | <p>I can recite numbers to 20 and back from 20.</p> <p>I can count on from a given number to 20 and back from a given number 0 - 10.</p> <p>I can recognise numbers 1-20 and out of order.</p> <p>I can show greater accuracy when counting a group of objects, showing 1 to 1 correspondence & confident application of the cardinal principle.</p> <p>I can say the number one more/less than a given number 1 - 10.</p> <p>I can explore sharing into equal groups in practical contexts, commenting on what I notice.</p> <p>I am beginning to work out 1 more/1 less than a number up to 20 using a preferred method: mentally, using objects or on a number line.</p> <p>I am beginning to count in 2s with support.</p> | <p>I can demonstrate understanding of everyday prepositions - in, on, under, beside, in front, behind.</p> <p>I can follow prepositional language e.g. put Teddy inside the box.</p> <p>I can select, rotate and manipulate shapes to match a picture, fit an outline or create patterns.</p> <p>I can name some 3D shapes and describe their properties using mathematical language.</p> <p>I can continue a simple AB, ABC pattern.</p> <p>I can use mathematical language when comparing length, weight and capacity. (E.g. longer/shorter, heavier/lighter, full/empty).</p> <p>I have an understanding of what the day and the month is.</p> <p>I can use and understand before/after.</p> |
| Early Learning Goals | <p>I have a deep understanding of number to 10, including the composition of each number.</p> <p>I can subitise (recognise quantities without counting) up to 5.</p> <p>I can 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.</p> | <p>I can verbally count beyond 20, recognising the pattern of the counting system.</p> <p>I can compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</p> <p>I can explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p> | |

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| Provision | Numicon, digit cards, 5/10 frames, dice, money, counters, multilink, compare bears, number lines, beads, buttons, 2D/3D shapes, balance scales, measuring jugs, tape measures, metre sticks, rekenreks, stopwatches, sand timers, clocks. |
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