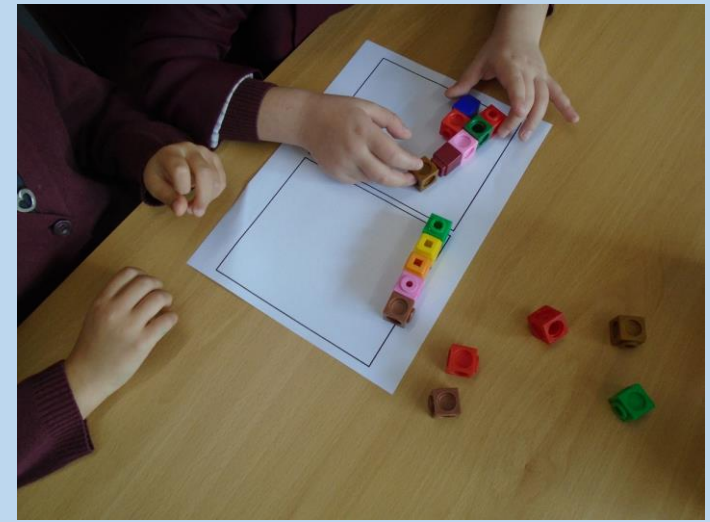




# Early Number

## Reception and Year 1

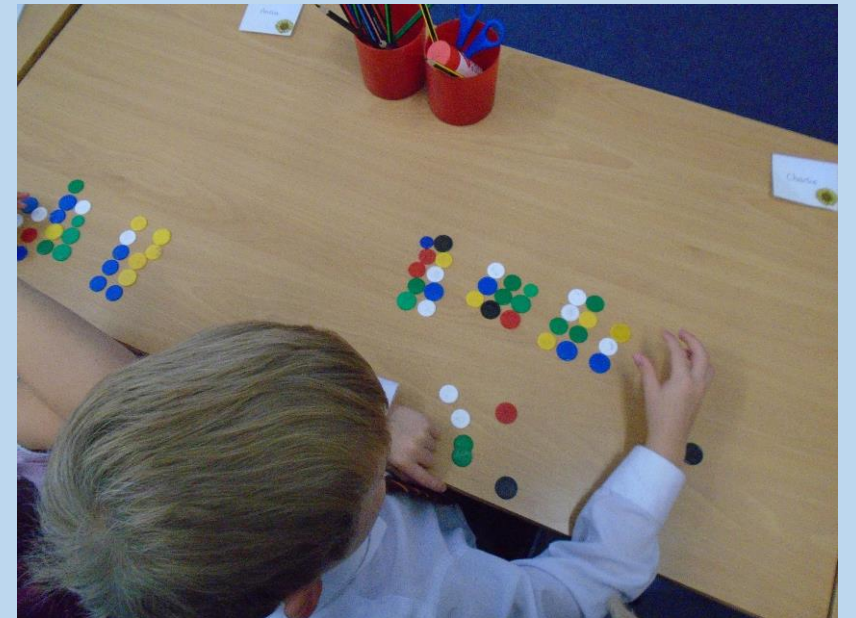
- What do we do in school?
- What does the curriculum look like?
- Useful resources
- How you can help at home



# The curriculum in school



- NCETM focusing on number sense
- Number blocks to support our learning
- Books and manipulatives
- White Rose scheme of learning



# How do we learn in our Maths lessons in school?

- Whole class sessions each day on the carpet
- Cross-curricular table top activities and outdoors
- Lots of talking
- Thinking
- Self-discovery
- Problem solving
- Using manipulatives
- Asking questions Real-life learning
- Practical and engaging lessons - fascinators!
- Pre-teach and small group sessions



# The Early Years Foundation Stage curriculum

## Development Matters Statements

Mathematics
<ul style="list-style-type: none"><li>• Count objects, actions and sounds.</li></ul>
<ul style="list-style-type: none"><li>• Subitise.</li></ul>
<ul style="list-style-type: none"><li>• Link the number symbol (numeral) with its cardinal number value.</li></ul>
<ul style="list-style-type: none"><li>• Count beyond ten.</li></ul>
<ul style="list-style-type: none"><li>• Compare numbers.</li></ul>
<ul style="list-style-type: none"><li>• Understand the 'one more than/one less than' relationship between consecutive numbers.</li></ul>
<ul style="list-style-type: none"><li>• Explore the composition of numbers to 10.</li></ul>
<ul style="list-style-type: none"><li>• Automatically recall number bonds for numbers 0-5 and some to 10.</li></ul>
<ul style="list-style-type: none"><li>• Select, rotate and manipulate shapes to develop spatial reasoning skills.</li></ul>
<ul style="list-style-type: none"><li>• Compose and decompose shapes so that children recognise a shape can have other shapes <i>within</i> it, just as numbers can.</li></ul>
<ul style="list-style-type: none"><li>• Continue, copy and create repeating patterns.</li></ul>
<ul style="list-style-type: none"><li>• Compare length, weight and capacity.</li></ul>

## Early Learning Goal

Mathematics
<b>Number</b>
<ul style="list-style-type: none"><li>• Have a deep understanding of number to 10, including the composition of each number.</li><li>• Subitise (recognise quantities without counting) up to 5.</li><li>• 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.</li></ul>
<b>Numerical Patterns</b>
<ul style="list-style-type: none"><li>• Verbally count beyond 20, recognising the pattern of the counting system.</li><li>• Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</li><li>• Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</li></ul>

# Year One National Curriculum Overview

Mathematics – key stages 1 and 2

## Year 1 programme of study

### Number – number and place value

#### Statutory requirements

Pupils should be taught to:

- 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.

#### Notes and guidance (non-statutory)

Pupils practise counting (1, 2, 3...), ordering (for example, first, second, third...), and to indicate a quantity (for example, 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent.

Pupils begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations.

They practise counting as reciting numbers and counting as enumerating objects, and counting in twos, fives and tens from different multiples to develop their recognition of patterns in the number system (for example, odd and even numbers), including varied and frequent practice through increasingly complex questions.

They recognise and create repeating patterns with objects and with shapes.

Mathematics – key stages 1 and 2

### Number – addition and subtraction

#### Statutory requirements

Pupils should be taught to:

- 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 missing number problems such as  $7 = \square - 9$ .

#### Notes and guidance (non-statutory)

Pupils memorise and reason with number bonds to 10 and 20 in several forms (for example,  $9 + 7 = 16$ ;  $16 - 7 = 9$ ;  $7 = 16 - 9$ ). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations.

Pupils combine and increase numbers, counting forwards and backwards.

They discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than, so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.

## Reception Vocabulary

### Number

zero one, two, three  
count, count (up) to, count on (from, to), count back (from, to) forwards, backwards,  
the same as, more, less odd, even fewer pattern,  
number bonds subitising, subitise.

### Place value

ones tens, the same number as, as many as  
more, larger, bigger, greater, fewer, smaller, less  
fewest, smallest, least most, biggest, largest,  
greatest one more, one less, compare, order size  
first, second, third, last, after, next, between

## Year One Vocabulary

### Number

zero one, two, three  
count, count (up) to, count on (from, to), count back (from, to) forwards, backwards,  
the same as, more, less odd, even fewer pattern,  
number bonds.

### Place value

ones tens, the same number as, as many as  
more, larger, bigger, greater, fewer, smaller, less  
fewest, smallest, least most, biggest, largest,  
greatest one more, one less, compare, order size  
first, second, third, last, after, next, between,  
**before, after, order, ordinal**

### **Addition Subtraction**

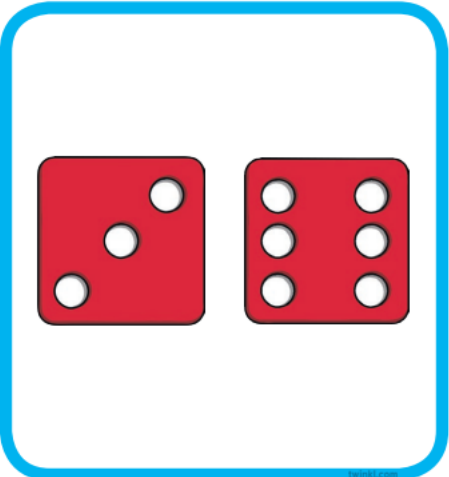
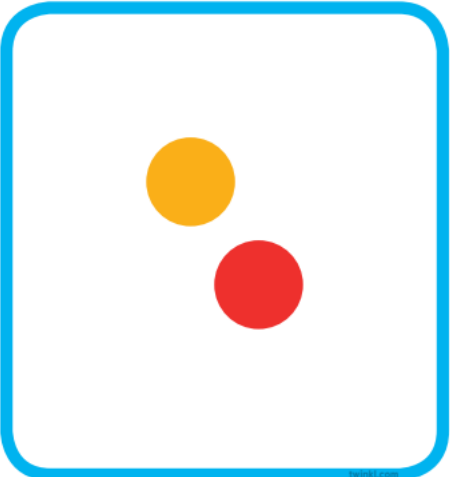
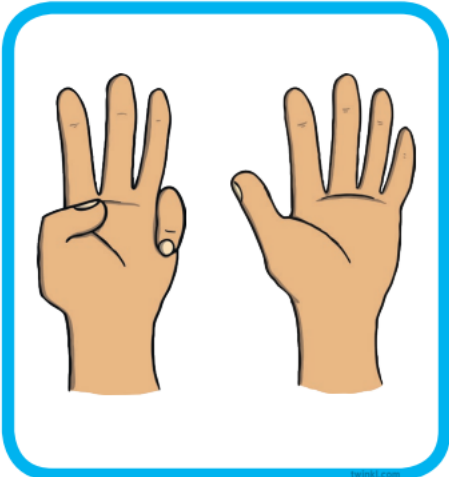
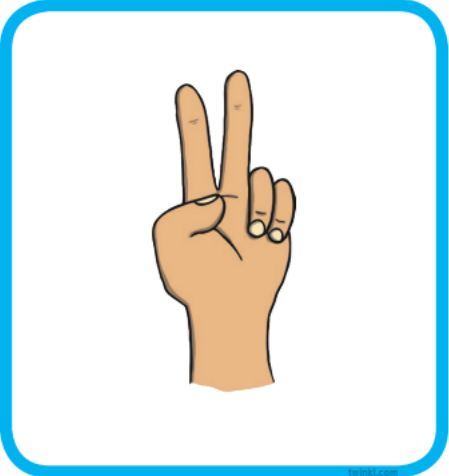
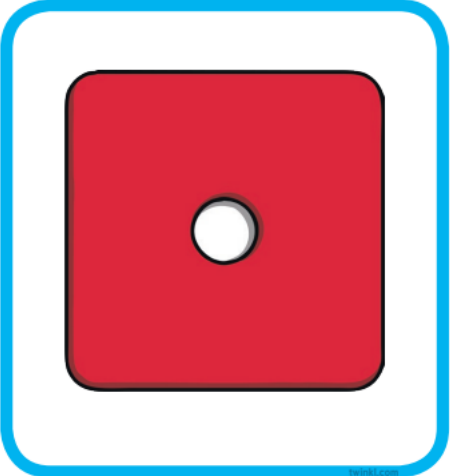
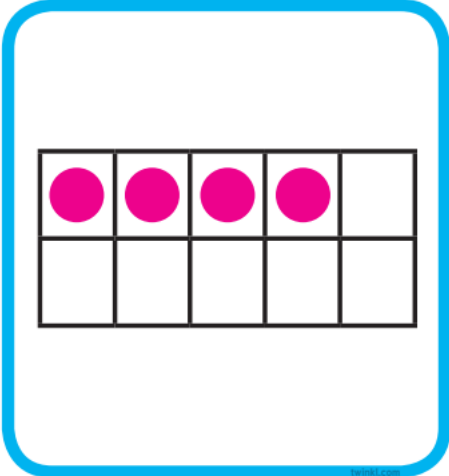
**number line, add, more, addition, make, sum,  
total, altogether, equals, equal to, number  
sentence, part whole, subtract, subtraction, take  
away**

# Number Sense and Place Value






In Reception the children develop a deep understanding of number and number relationships .





















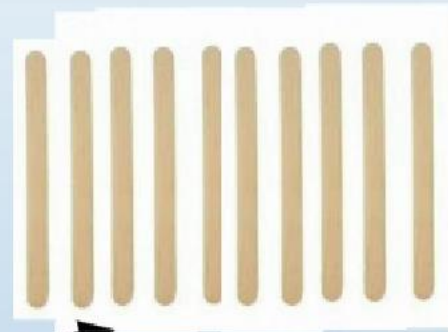
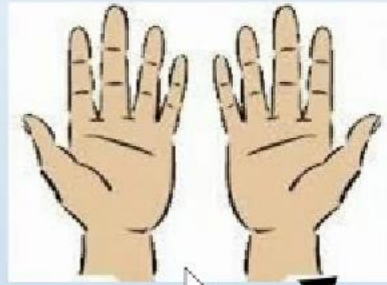
**1**   **2**   **3**   **4**   **5**



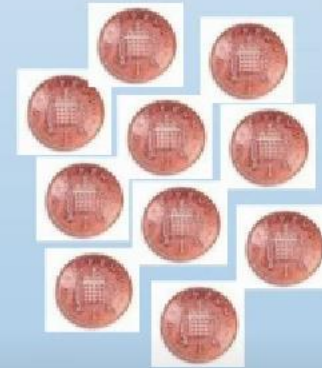
Number and  
place value



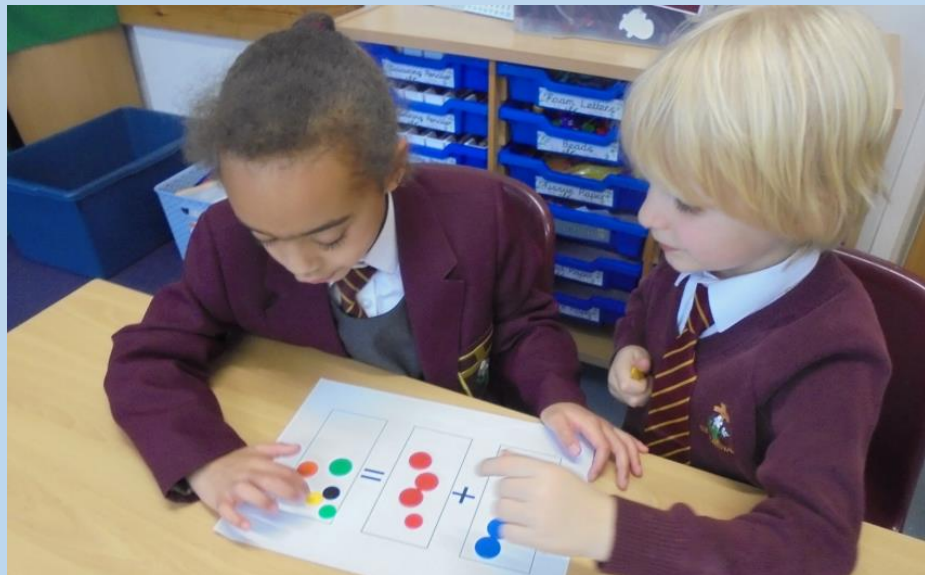
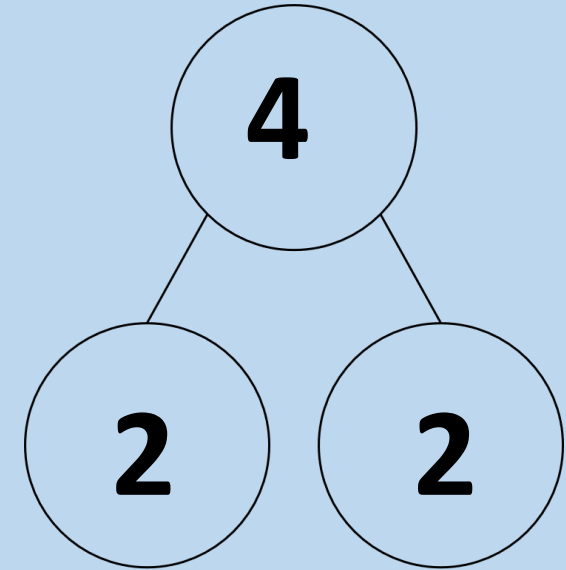
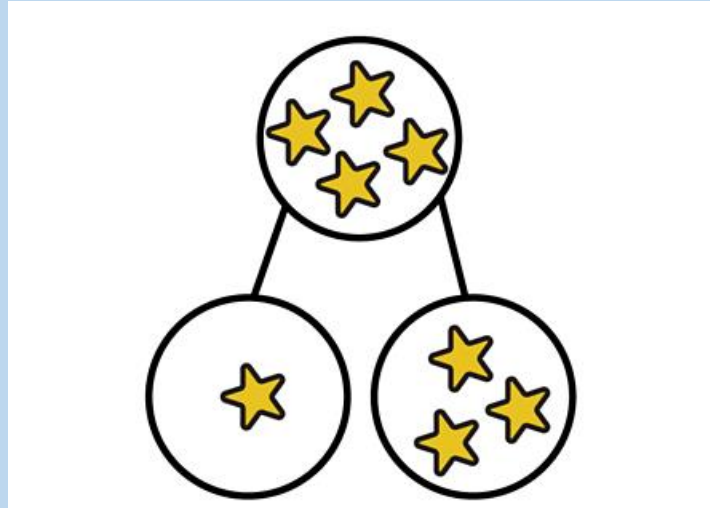
# Understanding the Value of Numbers



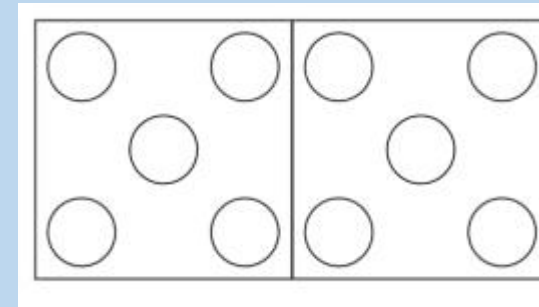
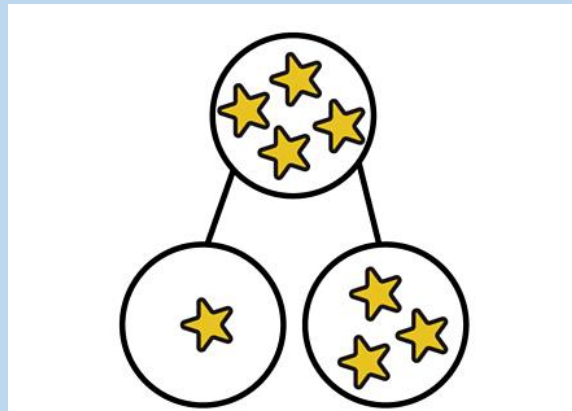
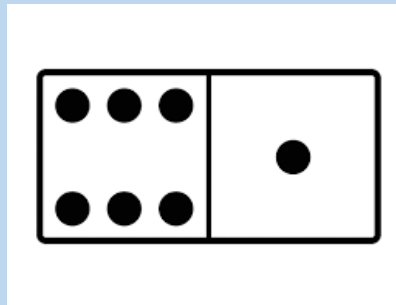
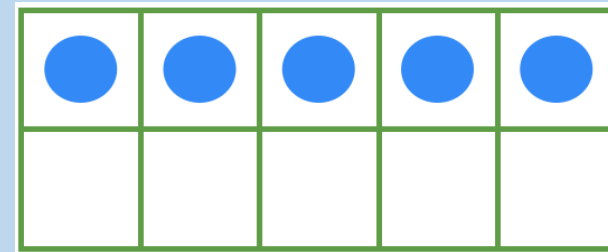
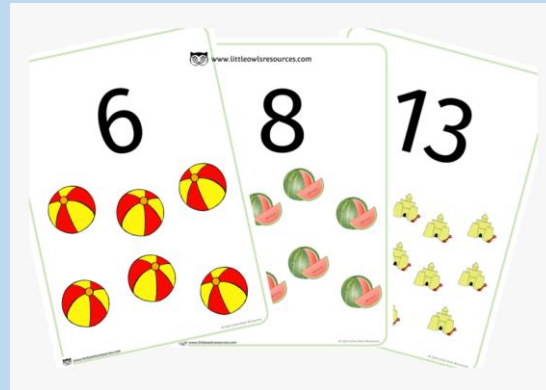
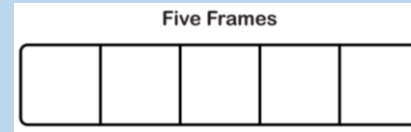
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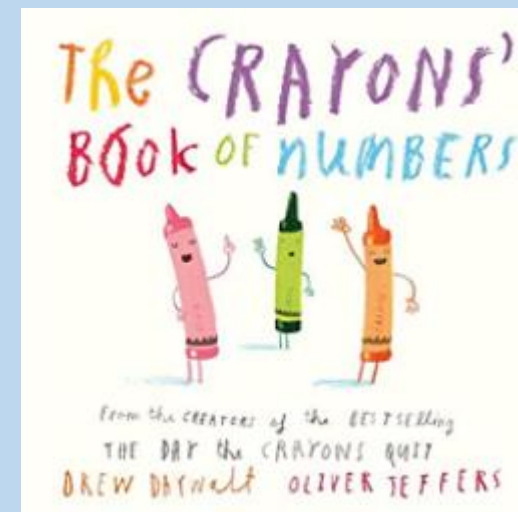
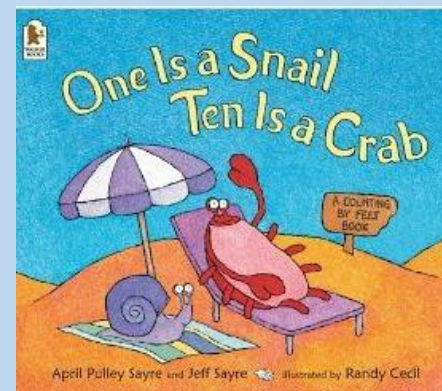
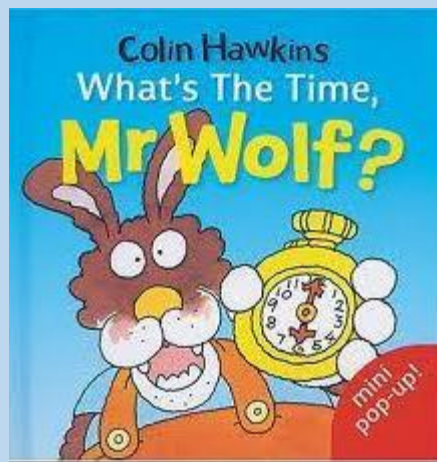
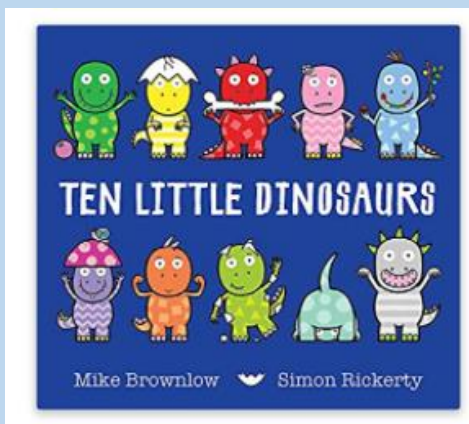
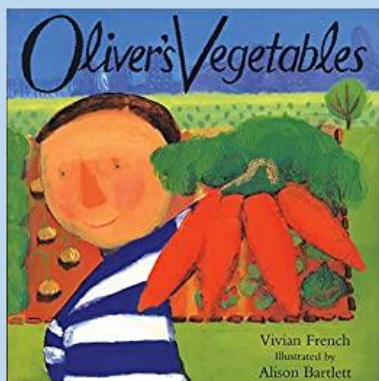
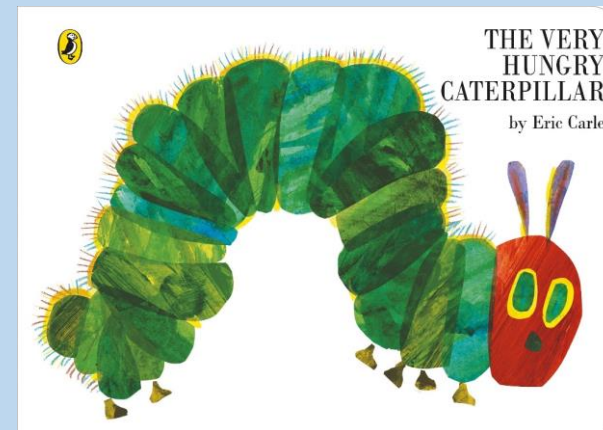
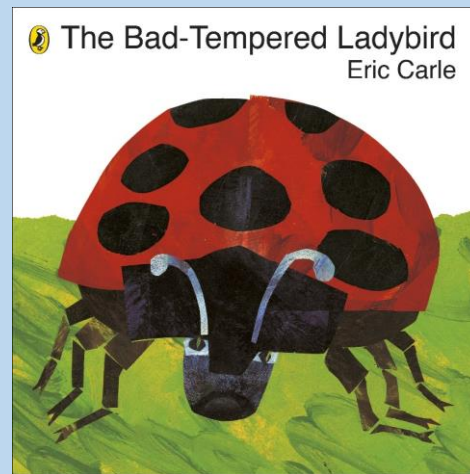
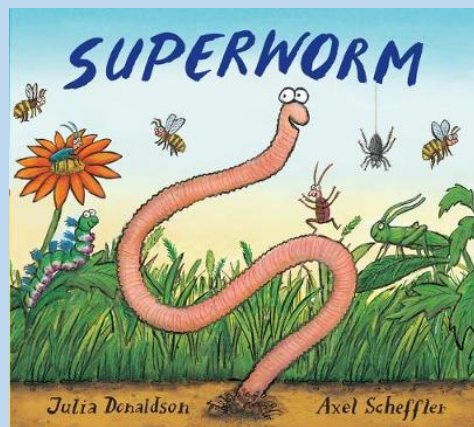
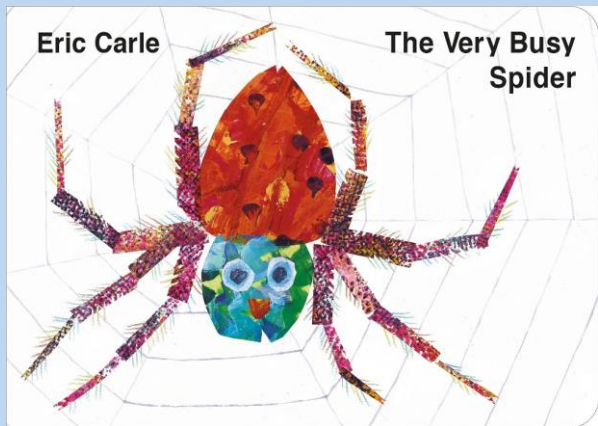
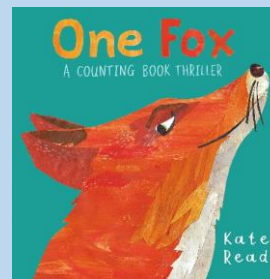
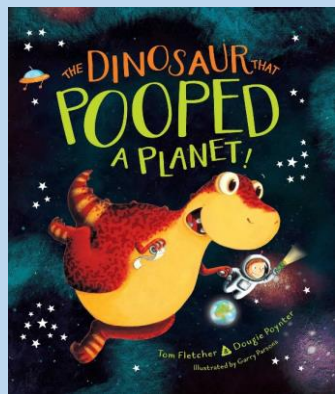
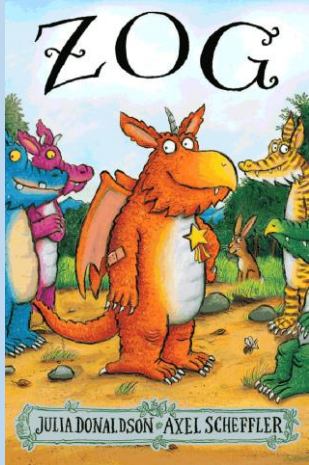
# Early addition and subtraction



# Physical resources



# Maths books



# How you can help at home



## Number formation

- Model number writing and reading in different ways: Lists, tracing, birthday cards, buses, front doors, recipes, in books, phones
- Number hunts
- Write in sand, with your finger on the carpet, paint, make numbers with play dough, on a whiteboard, on paper, post it notes, on a tablet

# How you can help at home?

## Counting

- Counting – in everyday conversation, in play, steps, brushing teeth, toys in the bath, tidying toys, laying the table
- Subitising – with teddies, spoons, socks, dice, coins
- Ordering numbers – flashcards, post it notes, lining up toys
- Number bonds – in the car, with teddies/toys, using different colours or patterns to see the two parts.
- Addition and subtraction – include it in everyday conversation, cooking

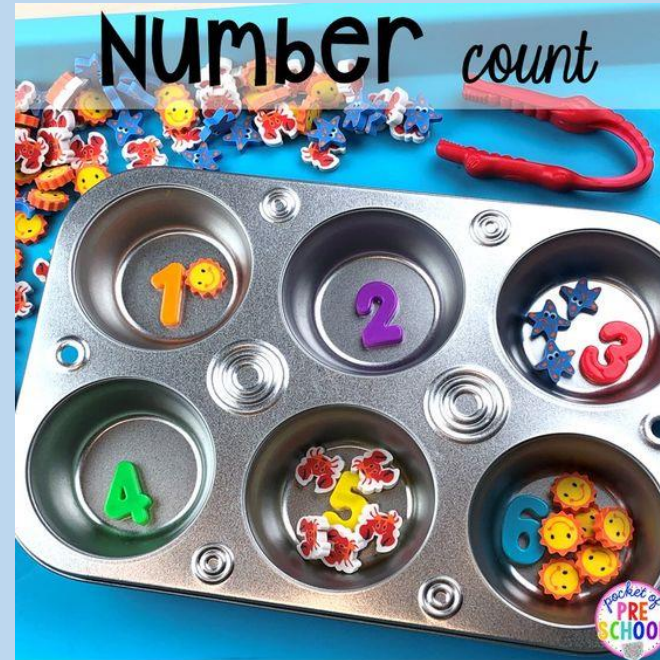




# How you can help at home?

## Games

- Snakes and ladders
- Board games
- Card games – snap, pairs
- Number hunts
- Hide and seek
- Bingo
- Link it to fine motor activities
- Counting songs





# How you can help at home?

In Reception and Year One we have a weekly challenge on google classroom linked to the learning taking place in school.



The children also have a login to Numbots. This is a motivational game where children can progress throughout a story and apply their mathematical skills.



# Useful websites

<https://www.bbc.co.uk/bitesize/articles/zks4kmn?fbclid=IwAR357cwmtmUmaOnHhRVPR5Az4k5OvKP6lrsYs9ZoYAadD5nfcOLzz0GHb>

CI BBC bitesize has lots of links to activities, games and videos all about maths and other areas of the curriculum

<https://www.bbc.co.uk/teach/school-radio/nursery-rhymes-songs-index/zhwgdwx> Nursery rhymes

[Early Years Maths - Topmarks Search](#). Online games for shape and counting, matching and ordering.

<https://numbots.com/>

<https://whiterosemaths.com/resources/1-minute-maths>

<https://www.bbc.co.uk/cbeebies/shows/numberblocks>

[Early Years Foundation Stage Activities \(maths.org\)](#)

