

Reception

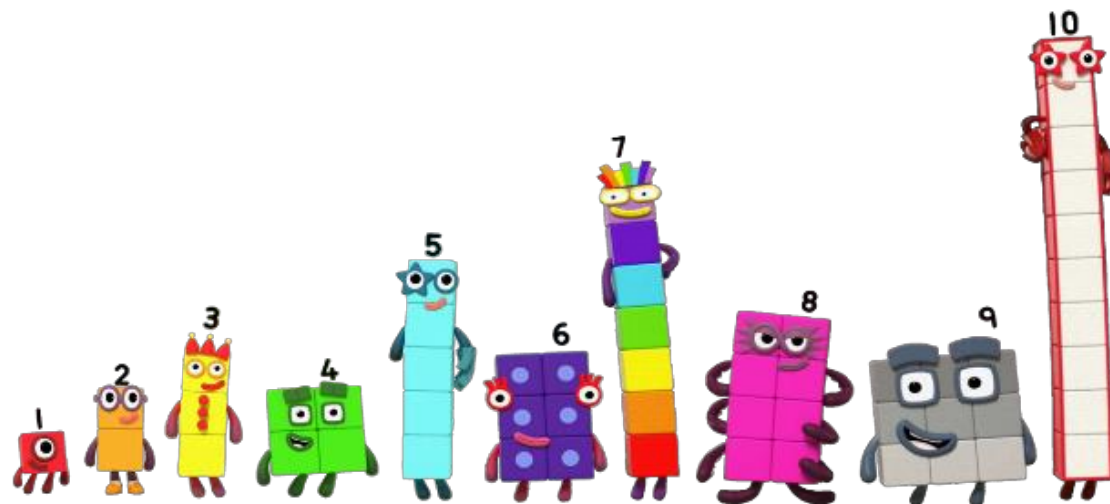
Understanding number

Before children begin to use numbers within the four operations, it is important that they have a strong understanding of the basis of number using the following principles:

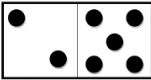


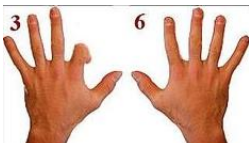
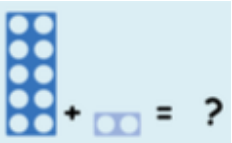
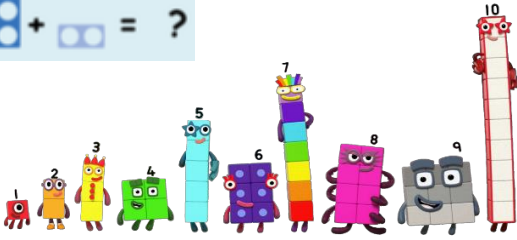
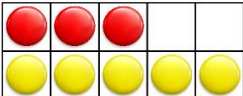

- **Subitise** (quickly recognising and saying the amount of objects when shown)
- **Count to 20**
- **1 to 1 correspondence** (counting one number for each object)
- **Number formation** (firstly numbers to 5 and then to 10)
- **Recognition of numeral** (knowing the name of a digit)
- **Order numbers to 10** (when given number cards to create a number line)
- **Cardinality of a number** (matching a number to an amount)

How to support at home:

- When tidying up, use number words to indicate given objects
 - e.g. Please pick up those 2 cars.
- Encourage children to use number words and notice quantities
 - e.g. 3 bikes in the shed, 2 footballs in the garden

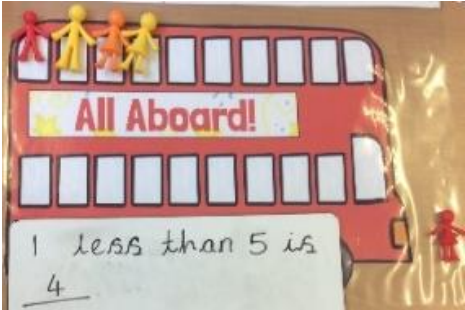
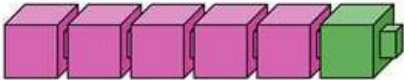


Addition

Year Group	Number Facts Pupils should be taught to:	Written Calculations and Appropriate Models and Images to Support Conceptual Understanding	
Reception	<ul style="list-style-type: none"> Children count reliably with numbers from 1 to 20. Use number bonds and related number facts within 10. 	<p>Must-have skills before children can start to calculate Children to count on and back using chanting, rhymes, songs and stories (numbers to 10 initially, and then move to 20). Children to recognise, write, match numbers to 10. Children to recognise lots of different representations of the same number. Children to show understanding of one to one correspondence to ten. Children to be able to count groups of up to ten objects accurately.</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>How many spots? ____</p> </div> <div style="text-align: center;"> $3 + 2 =$  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  </div> <div style="text-align: center;"> $3 + 3 = 6$  </div> </div> <div style="text-align: center; margin-top: 10px;">  </div> <div style="text-align: center; margin-top: 10px;">  </div> <div style="text-align: center; margin-top: 10px;">  <p>3 + 5 = 8</p> </div> <div style="text-align: center; margin-top: 10px;">  <p>5 red beads and 2 white beads equals 7</p> </div>
<ul style="list-style-type: none"> Children to find one more of a given number to 20. One more than ____ is _____. Children to do practically first. Children to combine 2 one-digit numbers to add using practical object and say full sentence. Children to practically move objects to ensure accurate counting. Children to count on to find the answer. Children to record answers to a calculation Children to be able to verbalise a number sentence and begin to record workings to represent this <p>Children will be familiar with the language ‘equal’ and be able to explain what it means.</p>			


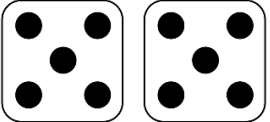






Subtraction (Fewer/less than)

Year Group	Number Facts Pupils should be taught to:	Written Calculations and Appropriate Models and Images to Support Conceptual Understanding	
Reception	<ul style="list-style-type: none"> Children count reliably with numbers from 1 to 20. Children to have rapid recall of one more and one less. 	<p><u>Must-have skills before children can start to calculate</u> Children to count on and back using chanting, rhymes, songs and stories (numbers to 10 initially, and then move to 20).</p> <p>Children to recognise, write, match numbers to 10. Children to recognise lots of different representations of the same number.</p> <p>Children to show understanding of one to one correspondence to ten. Children to be able to count groups of up to ten objects accurately.</p>	
		<ul style="list-style-type: none"> Children to find one less of a given number to 20. One less than ____ is _____ Children to count back know the previous number Children to record answers after using practical objects to find one less and then say full sentence aloud. <p>Children will be familiar with the language 'equal' and be able to explain what it means.</p>	



Multiplication

Year Group	Number Facts Pupils should be taught to:	Written Calculations and Appropriate Models and Images to Support Conceptual Understanding	
Reception	<ul style="list-style-type: none"> Children count reliably with numbers from 1 to 20. Children will begin to know their doubles to 10 as rapid recall. 	<ul style="list-style-type: none"> Children will experience equal groups of objects. They will work on practical problem solving activities involving equal sets or groups. Children are able to show double the amount when given a pictorial representation of a number. Children will count doubles within 10 and use practical objects including Die frames, Numicon and their fingers. Double ___ is ___. ____ add ___ is _____ Children will be familiar with the language equal and be able to explain what it means. Children recognise odd and even tops of number blocks to recognise if there is a double within. 	  $2 + 2 = 4$    



Division

Year Group	Number Facts Pupils should be taught to:	Written Calculations and Appropriate Models and Images to Support Conceptual Understanding	
Reception	<ul style="list-style-type: none"> Children count reliably with numbers from 1 to 20. 	<ul style="list-style-type: none"> Children will understand the term 'half' and use practical objects such as fruit, playdough, paper, shapes, cakes to find half. They understand it is two equal amounts. Children to find half of amounts by sharing equally between two groups. Children to use practical resources e.g. counters, plates of food, animals into pens, flowers into vases, ladybirds. Children will understand equal groups (other than 2) through practical sharing and share items out in play and problem solving using counter, cubes and objects. Children will use practical resources e.g. lily pads and frogs, plates and food to share into other group amounts equally. Children will be familiar with the language 'fair' and 'equal' and be able to explain what it means. Children recognise odd and even tops of number blocks to recognise if the number can be halved 	