


## Dereham Church Infant and Nursery School- Mathematics

	Year group: 1	Area/topic: Mathematics- addition and subtraction within 10
	<ul style="list-style-type: none"> <li>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.</li> <li>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</li> <li>Represent and use number bonds and related subtraction facts</li> <li>within 20</li> <li>Add and subtract 1-digit and 2-digit numbers to 20, including zero</li> </ul>	

Prior learning	Future learning
<p>During reception children completed daily maths meetings where they had regular opportunities to:</p> <ul style="list-style-type: none"> <li>-Subitise</li> <li>-tell mathematical stories using first, then, now</li> <li>-look at and discover the composition of numbers</li> <li>-begin to familiarise themselves with odd and even numbers</li> <li>-begin to learn number doubles within 5</li> <li>-Children have previously developed their place value knowledge</li> </ul>	<p>Children will complete an addition and subtraction within 20 unit in Spring 1.</p>

## What pupils need to know or do to be secure

Key knowledge and skills	Possible evidence
Identify and represent parts and the whole	Opportunities to describe and discuss groupings
Use a part whole model	Photos of children drawing and using large part whole models drawn in chalk on the playground
Write number sentences	Written sentences that match a group of coloured counters
Fact families	Pictures drawn that match a first, then, now story.
Identify number bonds to 10	Use of double sided counters to represent bonds to 10
Systematically identify number bonds to 10	Photos of children exploring number bonds to 10 using a range of manipulatives
To understand that addition is adding together	Opportunities to complete games where 2 groups are added together to find a total
To understand that addition is adding more	Opportunities for role play- a class bus where more passengers get on to travel.
To solve addition problems	Completed word problems
To find/identify a part	Opportunities to solve practical problems
To find all eight facts within a fact family	Number sentences written to match pictures
To understand subtraction as taking away	Pictorial work-crossing out
To understand subtraction as how many left	Completed matching activities
Subtraction on a numberline	Abstract work
Adding and subtracting 1 or 2	Word problems

<p>Key vocabulary</p> <p>Part, whole, equal, total, partition, addition, subtraction,</p>	
<p>Common misconceptions</p> <p>Children may mix up what the parts are and what the whole is. Physical activities can help with this, such as children standing in two hoops to make the parts, then physically coming together to make the whole</p> <p>Children may assume that the whole is always at the top of the diagram, so expose them to the part-whole model in different orientations</p> <p>Encourage children to use the phrase “is equal to” rather than “equals”. This helps them to write equations more flexibly, as saying the word “equals” suggests an answer rather than an equivalence.</p> <p>Encourage children to find answers to additions by either subitising or counting on from a start number. For example, if the addition is <math>3 + 2</math>, children should start at 3, then count on 2 more to get 5</p> <p>Children may read “=” as “makes”, which can reduce understanding and cause issues in later learning.</p> <p>Children may think that, because addition is commutative, then subtraction must also be, leading them to write incorrect statements, for example <math>5 - 2 = 3</math> so <math>2 - 5 = 3</math></p>	<p>Books linking to this area</p> <p>Ten black dots by Donald Crews</p> <p>How many legs by Kes Gray</p> <p>Six Dinner Sid by Inga Moore</p> <p>Mr Gumpy's outing by John Burningham</p> <p>The shopping basket by John Burningham</p>

Memorable first hand experiences	Opportunities for communication
Using a range of manipulatives	<p>Ask key questions and discuss</p> <p>Discuss and answer stem sentences provided by White Rose</p> <p>Complete odd one out activity and discuss</p> <p>Discuss/debate What's the same/what's different?</p>

DCINS Reasonable adjustments for pupils with SEND

<p><i>Communication and Interaction</i></p> <p>Use a range of visual aids Give clear instructions one at a time Repetition Provide simple instructions Pre teach vocabulary Use working wall where modelling is displayed Give children thinking time Model task</p>	<p><i>Cognition and Learning</i></p> <p>Check understanding regularly Allow rest breaks Give thinking time Colour code signs that could be confusing Work checklists Break down tasks into small steps Give opportunities for over-learning</p>
<p><i>Social, Emotional and Mental health</i></p> <p>Allow access to a quiet and calm space Give child a special role to increase self esteem Provide a visual support- what to do if you are stuck Provide a movement break Seat pupil by more confident peer Now and next board Sand timers Movement breaks Break down tasks into small steps</p>	<p><i>Sensory and Physical</i></p> <p>Consider carpet space position Reduce background noise Provide a range of manipulatives- dienes may be too small Appropriate seating Wobble boards Writing slope Enlarge text Variety of writing tools available</p>