Dereham Church Infant and Nursery School- Mathematics

	Year group: 1	Area/topic: Mathematics- Addition and subtraction within 20
	• Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs • Add and subtract 1-digit and 2-digit numbers to 20, including zero • Represent and use number bonds and related subtraction facts within 20 • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? - 9	

Prior learning	Future learning
In the Autumn term, children were taught how to add and subtract within 10	Children will apply this learning particularly in the next block place value

What pupils need to know or do to be secure	
Key knowledge and skills	Possible evidence
• Add by counting on within 20 • Add ones using number bonds • Find and make number bonds to 20 • Doubles • Near doubles • Subtract ones using number doubles	Use ten frame to complete a number story Photos of using cubes to add Completed part whole models Draw pictures to show doubles eg stars-hands etc Photos of using counters in a ten frame to solve near double questions Play a game, ask one child to stand on 10 and another on 20. Roll a dice and ask both children to hop back along their

• Subtract- counting back • Subtract- finding the difference • Use related facts • Missing number problems •	track the number rolled. What do they notice about where they have landed? Provide pictures- ask children to write matching first, then, now sentences. Draw bars models to compare Complete fact families for given numbers Use number lines and see how many jumps are needed to get to the given number
Key vocabulary	
Altogether, double, same, difference, equal, forwards, backwards, difference, more, fewer, addition, subtraction, add, subtract, part, whole, first then now,	

Common misconceptions	Books linking to this area
Children may count all the items, starting from 1, rather than counting on from one of the numbers in the addition. • Children may always start from the first number in the addition, rather than starting from the greater number. If children are not secure with number bonds within 10, they may make errors when trying to find the related facts within 20 • Children may not see that they can use a single number bond within 10 to find two different addition facts within 20, for example using 3 + 2 to work out both 13 + 2 and 12 + 3 Children may add a 10 to both numbers, for example 14 + 16 = 20 • Children may miscalculate if they are using counting on as a strategy for working out the number bond. Using equipment such as ten frames can help with this. • Some children may think that double 2 is 22 or double 3 is 33, because they can see the number twice. • Children may find	Mr Gumpy's outing by John Burningham Double the ducks by Stuart Murphy

doubles beyond double 5 more challenging as they cross 10 • When counting back, children may include the start number. For example, when working out 15 – 4, they may count "15, 14, 13, 12". • Children may write calculations the wrong way around if they do not understand the importance of order when subtracting, thinking that it is the same as addition, where the order does not matter. For example, they may write 4 – 15 but still give the answer 11	
Memorable first hand experiences	Opportunities for communication
Use a range of manipulatives. Games on the playground using chalked number tracks Use large pieces of A2 paper to draw ten frames and place counters on.	Ask key questions and discuss Discuss and answer stem sentences provided by White Rose Discuss/debate What's the same/what's different?

DCINS Reasonable adjustments for pupils with SEND

Communication and Interaction	Cognition and Learning
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	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
Social, Emotional and Mental health	**Sensory and Physical**
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	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