Dereham Church Infant and Nursery School- Mathematics



Year group: | Area/topic: Mathematics- place value within 20

- Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number
- 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
- Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
- Read and write numbers from 1 to 20 in numerals and words
- · Given a number, identify I more and I less

Prior learning	Future learning		
In the Autumn term, children learnt the numbers	This will be used throughout future maths		
to 10 and became secure with these.	learning. There will also be a place value within		
	50 black later in the term		

What pupils need to know or do to be secure				
Key knowledge and skills	Possible evidence			
Count within 20	Read the book 1 to 20 animals aplenty.			
	Provide opportunities to count with class			
	members.			
Understand 10	Know that a 10 diene is the same as 10			
	ones. Photos of working with a selection			
	of manipulatives that represent 10.			

Understand II, 12 and 13 Using ten frames and seeing that 11, 12 and 13 are more than one full 10. Understand 14, 15 and 16 Showing 15 using three different ways. Understand 17, 18 and 19 Using ten frames and recognising how many empty spaces are left in the second ten frame in order to identify quickly 17,18 or 19. Understand 20 Filling ten frames to make 20. Opportunities to use bead strings and Find I more and I less cubes to represent I more/I less Use a numberline to 20 Complete number lines where numbers are missing. Estimate on a numberline to 20 Photos of children placing number cards on a large chalked number line on the playground Compare numbers to 20 Complete missing number problems Order numbers to 20 Placing plates of sweets in order from fewest to most Key vocabulary Greater than, less than, zero, total, part, whole, more, less, estimate, halfway, same, different, equal, most, fewest, Common misconceptions Books linking to this area Children may find the numbers 11, 12, 13 and 15 confusing, as 1 to 20 Animals aplenty they cannot hear the 1, 2, 3 and 5 within them.

My granny went to market

Children may find writing teen numbers tricky, in particular reversing the digits. For example, when saying 16, they hear the 6 first, so may write 61.

Children may struggle to understand that I ten is made up of 10 ones. Ensure that they explore this in a variety of ways. Where IO is represented using a single piece of equipment, for example a single base IO piece, children may struggle to recognise the IO ones as they cannot physically break the representation apart.

When labelling a number line, children may write the numbers in between divisions, as they do on number tracks, rather than on divisions.

Children may assume that all number lines start at zero. Children may think that numbers on a number line can either increase or decrease from left to right, as on number tracks. Children may compare the ones in a number without considering the tens and so think that 8 is greater than 15, because 8 is greater than 5

Counting creatures

20 big trucks

The perfect number
The digits number jumble

Memorable first hand experiences

Use a range of manipulatives.

Placing number cards on large numberlines chalked on the playground

Opportunities to order and sort plates of sweets

Opportunities for communication

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

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

Cognition and Learning

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

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

Sensory and Physical

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