## Advantage School Curriculum Map - EYFS Mathematics. September 2023-2024

Resources used: NCETM, EYFS Development Matters Sep 21.

| ADVANTAGE | Autumn I | Autumn 2 | Spring I | Spring 2 | Summer I | Summer 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cardinality and counting | Counting to 10 using correct number words in sequence <br> One to one correspondence to 5 using concrete objects <br> Perceptual subitising to 5 using structured layouts (fingers, dice frames, 5 s frames) and random arrangements. <br> Starting to understand the last number counted gives the total so far for numbers to 5 | Counting back from 10 using correct number words in sequence and relating them to their numeral symbol <br> One to one correspondence to <br> 5 using concrete objects and more abstract concepts such as sounds <br> Perceptual subitising to 5 using structured layouts (fingers, dice frames, 5 s frames) and random arrangements. <br> Developing understanding that the last number counted gives the total so far for numbers to 5 <br> Begin to explicitly teach number formation here for numbers to 10. | Counting to 10 forwards and backwards using correct number words in sequence <br> One to one correspondence to IO using concrete objects <br> Perceptual subitising to 5 and conceptual subitising to 10 using structured layouts (fingers, dice frames, IOs frames). See numbers to 10 as 5 and $\qquad$ <br> Starting to understand the last number counted gives the total so far for numbers to 10 | Counting to 20 using correct number words in sequence and relating them to their numeral symbol <br> One to one correspondence to 20 using concrete objects and more abstract concepts <br> Perceptual subitising to $5 / 6$ and conceptual subitising to 10 using structured layouts. (fingers, dice frames, 10 s frames) <br> How many are there and how do you notice them? <br> Developing understanding that the last number counted gives the total so far for numbers to 10 | Counting beyond 20 using correct number words in sequence. Counting backwards from 20. <br> One to one correspondence to 10 using concrete objects <br> Perceptual subitising to $5 / 6$ and conceptual subitising to 10 using structured layouts. (fingers, dice frames, 10 s frames) <br> How many are there and how do you notice them? <br> Starting to understand the last number counted gives the total so far for numbers to 20 Use I full ten and $\qquad$ in the next ten for numbers over IO, using IOs frames for scaffold | Counting beyond 20 using correct number words in sequence and relating them to their numeral symbol <br> One to one correspondence to 20 using concrete objects and more abstract concepts <br> Perceptual subitising to $5 / 6$ and conceptual subitising to 10 using structured layouts. (fingers, dice frames, 10 s frames) <br> How many are there and how do you notice them? <br> Developing understanding that the last number counted gives the total so far for numbers to 20 <br> Use I full ten and $\qquad$ in the next ten for numbers over 10 , using 10 s frames for scaffold |
| Comparison | Understanding more than and less than/fewer with groups of concrete objects to five. Teach by lining them up to compare. Lining up vertically as well as horizontally. Use the same objects to keep the cognitive load low. | Understanding more than and less than for groups of concrete objects to 5 and relating this to the position of the number in the counting sequence. Use the same objects to keep the cognitive load low. <br> This leads to children seeing patterns in consecutive numbers - I more/less <br> This will start to include counting amounts and then justifying which group is larger or smaller based on the number of items, use 5 s frames to scaffold reasoning. Eg 5 is more | Identifying groups with the same number of things as well as those which are more than or less than/fewer than. Groups up to 10 . Use the same objects to keep the cognitive load low. <br> This leads to children seeing patterns in consecutive numbers - I more/less <br> This will continue to include counting amounts and then justifying which group is larger or smaller based on the number of items. Use tens frames to scaffold reasoning. Eg 7 is more than 6 because 7 is 5 and 2 and 6 is 5 and I | Understanding more than and less than for groups of concrete objects and relating this to the position of the number in the counting sequence and then comparing numerals. Groups up to ten <br> Use reknreks to compare numbers to 10 . | Comparing amounts using the numeral and reasoning. <br> Eg. When told one box has 5 sweets and one box has 3 sweets children reason which box they would rather have. <br> Use reknreks to compare numbers to 10 . | Knowing the one more than/one less than relationship between counting numbers |


|  |  | than 3 because 5 has no spaces and 3 has 2 spaces. |  |  |  |  |
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| Composition <br> Big number and small numbers to lead in to year one composition and year 2 problem solving. WHERE DOES THIS FIT? | Identifying parts and wholes with concrete representations with numbers to 5 . Eg. <br> How many animals can you see? <br> How many are dogs? <br> How many are cats? <br> Partitioning the same number in different ways to understand that different pairs of combinations can make the same total. Lots of visuals here. https://earlymath.erikson.edu/nu mber-arrangements-online-math-curriculum-education/ <br> Link this to daily subitising practice so they can see 4 is 2 and $I$ and $I$ or 3 and $I$ etc | .Identifying parts and wholes with concrete representations with numbers to 10 . Eg. <br> How many animals can you see? How many are dogs? How many are cats? <br> Partitioning the same number in different ways to understand that different pairs of combinations can make the same total. Lots of visuals here. https://earlymath.erikson.edu/nu mber-arrangements-online-math-curriculum-education/ <br> Link this to daily subitising practice so they can see 4 is 2 and $I$ and $I$ or 3 and $I$ etc | Learning number bonds to 5 through subitising by seeing smaller numbers within a larger collection (eg red and yellow counters or number of spots on each wing of a lady bird). Use bunny ears on fingers, eg 5 bunnies on 2 hands ( 2 and 3 or 4 and I) Rely on concrete representations. <br> Use 5 frames to see bonds to 5 . Use tens frames to show as two 5s frames. | Developing fluency with number bonds to 5 using concrete representations and numerals <br> Recognise that a number of things partitioned into two groups, can be recombined to make the same total. <br> Understanding that numbers can be partitioned into more than two groups. <br> Use tens frames to show as two 5s frames. | Introducing number bonds to ten from doubles of number bonds to 5 . Use tens frames to show as two 5 s frames and explore what happens when you fill each 5 frame with the same amount (doubles). Use grouping pair wise on a tens frame. <br> Use tens frames to show as two 5 s frames to compare composition of odd and even numbers. Consider pairs wise composition on tens frames. <br> Also consider odd and even in terms of sharing equally into two groups. | Introducing some odd number, number bonds to ten <br> Use tens frames to show as two 5s frames and explore what happens when you fill each 5 frame with the same amount (doubles). Use tens frames to show as two 5 s frames to compare composition of odd and even numbers. |
| Pattern | Continue and copy an $A B$ pattern <br> Sort objects by specific features such as shape and colour | Make an $A B$ pattern and spot an error in an $A B$ pattern | Continue and copy ABB patterns <br> Spot errors in ABB patterns | Understand that quantities can be distributed equally and unequally and consider strategies for distributing. <br> Continue and copy more complex patterns <br> $A B B, A B C, A B B C, A A B B$ etc. | Look at the patterns of odd and even numbers using numicon and tens frames pair wise. <br> Identifying the unit of repeat in a pattern <br> Continue a pattern that ends mid unit | Exploring the patter of the counting system with tens and ones using tens frames and reknreks. <br> Generalise patterns to another context or mode (eg. From shapes to letters) <br> Making a pattern with a fixed number of spaces (eg round a circle or a border) |
| Shape and space | Developing spatial awareness and using spatial language | Representing spatial relationships though language and drawing <br> Developing shape awareness through construction (why is that a good block to go there?) | Identifying and representing similarities between shapes. Eg. Representing a ball as a circle in a drawing. | Develop awareness of properties of shapes even if this can not be formally described. <br> Circle, square, triangle, rectangle and other quadrilaterals. Can build to pentagon and hexagon if appropriate. | Describe properties of shapes | Develop awareness of relationships between shapes |
| Measures | Recognise the specific attributes of (for example) length - that a stick is long; adults are tall. | Comparing the amounts of continuous quantities <br> Introduce capacity here. How many cubes/apples etc. fit in here? | Showing an awareness of comparison in estimating and predicting | Comparing indirectly <br> Recognising the relationship between size and number of units | Beginning to use units to compare things | Beginning to use time to sequence events <br> Beginning to experience specific time durations |

## Ten Frame Issues:

- Starting with number instead of 'full and not full'
- Counting on the frame
- Cognitive load
- Lack of practitioner understanding as to what skills the tool is being used to teach (i.e. concept images of numbers in relation to 10)
- Being a 'follower' and not a 'user' of a maths scheme
- Not understanding the role of and relationship between subitising and 5 and 10 frames
- Under-developed understanding of subitising (dice patterns etc.)
- 10 frames positioned too close together
- The internet (being a discerning user)

