Aurora Maths Curriculum

Nursery (EYFS)

Fluency Steps of progress concepts	Subitising	Cardinality, Ordinality & Counting	Composition	Comparison	Number	Trust-identified Assessment Weeks ★

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn Term	★ Getting to know you: Baseline Assessment Period (AAT Baseline) Introduction to sorting, focusing on colours			Number One	AB patterns with objects and colours	Number Two	Number Three	Subitising to 3	Comparison of sets – by looking (up to 3)	Focus on counting skills (up to 3)	Comparison of sets – by matching (up to 3) ★	Composition – whole & part (up to 3)
Spring Term	Measure Short or long?	Measure Tall or short?	Subitising to 3 More, less or same (up to 3)	Number Four	Number Five Including: matching numerals & quantities and ordering amounts (up to 5)	2D Shape: Circles, Triangles and Squares + AB patterns with shape	Subitising to 5	Comparing two groups - equal and unequal amounts to 3 (more, less, same)	Composition of objects up to five: partitioned into parts ★	3D shapes	Counting to 10	Positional language
Summer Term	2D and 3D shapes AB patterns	Subitising to 5 Equal and unequal amounts to 5	Measure Heavy or light? ★	Measure Full or empty?	Representing numbers to 5	Counting to 10	Subitising to 5 Representing numbers to five	Mixed Measure Review	Adding zero to any given number (within 5)	Adding one more (within 5)	Positional language – routes and locations (transition)	Review Week

Nursery Steps of Progress Overview: End of Unit Ready for Reception Assessment Objectives:

Autumn Term	• Is able to accurately continue an A/B colour pattern.
	• Is able to subitise a regular arrangement of up to 2 objects. • Is able to separate a group of 3 objects in different ways; begins to recognise that the total stays the same. • Is able to partition a group of objects into parts. *e.g. "I've got some cars. 2 red and 2 blue cars."* • Is able to correctly use the language 'more', 'less' and 'same' in everyday situations.
Spring Term	• Is able to compare the length of two objects as long and short. • Is able to compare height using the words tall, short. • Is able to compare 2 groups of up to 3 objects, using the language 'more', 'less' and 'same. • Is able to recite numbers 0-5 in order accurately. • Is able to represent a quantity using objects. • Is able to recognise and name some 2D shapes.
	• Is able to identify two equal groups of objects up to 3. • Is able to recognise and name some 3D shapes. • Is able to verbally count to 10. • Is able to understand position through words alone e.g. behind, over, on top of, in front.
Summer Term	• Is able to explore the weight of two objects as heavy and light. • Is able to describe capacity using words full and empty.
	• Is able to discuss routes and locations using familiar language N.B: Objectives not formally assessed.

Weekly Guidance

Note: Refer to the steps of progress document in order to see stages of development.

Autumn 1				
Weeks 1 - 3	Introduction to sorting, focusing on colours	**Recognising and naming colours** Children should be taught to recognise and name colours in a variety of contexts e.g. toys within the classroom, colours in nature, colours in the environment, matching colours, colours on themselves such as hair, skin, clothes. Children should be able to say when objects are and are not the same colour. Link to expressive art and design through painting. **Sorting** There should be a focus on reasoning within sorting i.e how have you sorted the animals/button etc? Children should be given the opportunity to sort the objects by their own rules and should be taught how to communicate that rule (e.g. I have sorted the buttons by colour). This should be explored in many different contexts such as shapes, different coloured and size objects, different animals, objects found in the environment, appearance of various objects and people. Children should be taught to verbalise what is the same and what is different between sets of objects (e.g these buttons are pink and these buttons are blue/ they are boys and they are girls). Links can be made to Understanding of the World	**Other resources** The Usborne Big Book of Colours Monsters Love Colours – Mike Austin **Other resources** Sort it Out! – Barbara Mariconda Sorting at the market – Tracey Steffora	**Key Vocabulary:** notice, match, same, colour **Key Vocabulary**: sort, notice, groups, sets, same, different
Week 4	Number One	**Number 1** The following should be explored: • Counting to 1 • Finding 1 object • Numicon 1 • Dice 1 • 1 action e.g. 1 hop, 1 jump, 1 clap • The numeral and formation of 1 • Number 1 in the environment • Representing 1 using marks, pictures and finger • 1 being the first number, its position on a number line, ordinal numbers • Number blocks episode 1 • Subitising 1 • Representing 1 on a 5 frame • A circle – 1 sided shape (including in the environment) • Matching numeral to quantity • Showing finger numbers	**Other resources** Number Blocks Series 1: One One Mole Digging a Hole: Julia Donaldson How to count to one: Caspar Salmon & Matt Hunt	**Key vocabulary:** number, numeral, subitise, represent, how many, count, cardinal, first/second/third etc Note: Cardinal – the number that identifies how many there are in a set. Numeral – the written symbol for a number e.g. 1,2,3 **Subitise – Instantly recognise a small quantity without having to count how many there are. (Don't count, say the amount!)**
Week 5	AB patterns with objects and colours	**Pattern** Developing an awareness of pattern helps children to notice and understand mathematical relationships. Children should inititally be taught to continue an AB pattern. Children need the opportunity to see a pattern, talk about what they can see and to continue a pattern. At first they may do this one object at a time e.g red cube, blue cube, red cube… verbalising the pattern helps. Children may then be asked to say what they would add next to continue it. For further progression in Pattern see ***NCETM Early Years Typical Progression Chart – Pattern***.	**Other resources** Pattern Fish – Trudy Harris Lots and lots of Zebra Stripes – Stephen R. Swinburne https://nrich.maths.org/13250	**Key Vocabulary:** pattern, continue, notice, next
Week 6	Number Two	**Number 2** Look at representations as above for number 1 but adapt for 2 and begin to have children give or take 1 or 2 items from a group. Also focus on what 2 is made of (1 is a part of me, 1 is a part of me and the whole of me is 2). ***Note:*** *do not introduce children to addition or number sentences until Reception*. Also look at separating the group of objects but knowing that the total is the same.	**Other resources** The Very Hungry Caterpillar – Eric Carle	**Key vocabulary:** number, numeral, subitise, represent, how many, count, cardinal, first/second/third etc

Autumn 2				
Week 7	Number Three	**Number 3** As above for number 1 and 2: (2 is a part of me, 1 is a part of me and the whole of me is 3). Exploring different varieties and orientations of triangles.	**Other resources** https://nrich.maths.org/13372 Number Blocks Series 1: One; Series 1: 2; Series 1: 3; Series 1: One, Two, Three! The Three Little Pigs The Three Billy Goats Gruff Goldilocks and the Three Bears	**Key vocabulary:** number, numeral, subitise, represent, how many, count, cardinal, first/second/third etc
Week 8	Subitising to 3	Children should be encouraged to quantify sets of objects by subitising, rather than counting. When subitising, children can say how many there are in a small group of objects by 'just seeing' and knowing straightaway without needing to count. Subitising can be categorised as 'perceptual' or 'conceptual'. Perceptual subitising is used for very small sets of objects (initially up to about 3) and this is what to focus on. Some arrangements are easier to subitise than others, e.g. a set of 3 dots arranged in a triangular pattern may be easier to recognise than a random arrangement, and children need to be exposed to many different arrangements. Plan activities this week which provide opportunities for children to: • represent the number in a given set using different objects – e.g. showing the same number on their fingers • name quantities with number words, *(e.g. "I can see 3.")* • match sets to numerals • make their own arrangements that can be subitised.	**Other resources** Farm 123 – Rod Campbell	**Key vocabulary: number, numeral, subitise, represent, how many, count, cardinal**
Week 9	Comparison of sets – by looking (up to 3)	**Comparing** Children need progressive experiences where they can compare collections and begin to talk about which group has more things. When talking about amounts of objects use the language of more and fewer. Children should initially be taught perceptual comparing (comparing without counting). Initially the groups need to be very obviously different (e.g 2 objects and 7 objects). Move on to collection of small numbers of objects that are similar (e.g 1 and 3 objects) and then move onto different items but same quantity (using language of same or equal). For further progression in comparing ***see NCETM Early Years Typical Progression Chart – Comparison.***		**Key vocabulary:** compare, more, fewer, less, same, equal There are more _____ than _____ / there are fewer _____ than _____.
Week 10	Focus on counting skills (up to 3)	**Number Rhymes** Rhymes and songs are very important when it comes to learning about counting. They can provide small, bite-sized information for children to learn about. It's a great way to trigger some creative inspiration in your students. They open children up to rhythm and rhyming, which can play a part in maths, such as times tables. When it comes to counting, songs can help develop a familiarity with numbers and the sounds they make. **Counting principles** 1. **The one-one principle** – this involves children assigning one number name to each objects that is being counted. Children need to ensure that they count each objects that is being counted only once ensuring that they have counted every object. Children will sometimes count objects more than once or miss an object out that needs to be counted. Encourage children to line up objects and touch each one as they count saying one number name for each object. This will also avoid children counting more quickly than they touch the objects which again shows that they have not grasped one-one correspondence. When counting pictures children should use the strategy of drawing a line through each picture as they count it. Children should be taught number names through number songs and general counting. 2. **The stable-order principle** – children understand when counting that the numbers have to be said in a certain order. Children need to know all the number names for the	**Other resources** **1, 2, 3, 4, 5 once I caught a fish alive** **1, 2, buckle my shoe** **Here is the beehive** **Other resources** NCETM Early Years Typical Progression Chart – Cardinality and Counting Anno's Counting Book – M Anno The Very Hungry Caterpillar – Eric Carle	**Key Vocabulary:** sing, song, 1, 2, 3, 4, 5 **Key vocabulary:** count, how many, total, altogether, cardinal number The cardinal number is ____.

		amount in the group they are counting. Teachers can therefore encourage children to count aloud to larger numbers without expecting them to count that number of objects immediately. The order of numbers should be reinforced through number songs and daily counting activities. 3. **The cardinal principle** – Children understand that the number name assigned to the final object in a group is the total number of objects in that group. In order to grasp this principle, children need to understand the one-one and stable-order principles. From a larger group, children select a given number and count them out. When asked 'how many?' children should be able to recall the final number they said. Children who have not grasped this principle will recount the whole group again. 4. **The abstraction principle** – this involves children understanding that anything can be counted including things that cannot be touched including sounds and movements. When starting to count many children rely on touching the objects in order to count accurately. Teachers can encourage abstraction on a daily basis by counting claps or clicks. 5. **The order-irrelevance principle** – this involves children understanding that the order we count a group of objects is irrelevant. There will still be the same number. Encourage children to count objects left to right, right to left, top to bottom, bottom to top. Once children have counted a group, move the objects and ask children how many there are. If they count them all again they have not fully grasped this principle.		
Week 11	Comparison of sets – by matching (up to 3)	The comparison of quantities is something that children begin to do as babies. When comparing, children notice attributes and begin to understand similarities and differences. This week's activities focus on further developing these innate skills. The children will already have experience of comparing sets by looking and now will be encouraged to compare the number of objects in 2 sets by matching them 1:1. Seeing that objects in some sets can be matched without any being left over will draw the children's attention to instances when the quantities of objects are equal. Language is a key focus and adults will need to reinforce this.		**Key vocabulary:** compare, more, fewer, less, same, equal There are more _____ than _____ / there are fewer _____ than _____.
Week 12	Composition: whole and part (up to 3)	Understanding the composition of numbers is more than remembering number facts. As part of their work on subitising, the children have previously begun to spot numbers within numbers, and this skill of de-composing and combining numbers (taking them apart and putting them back together again) will build firm foundations for later calculation strategies. Children should explore objects that break into three pieces, or that can be built from three different parts, talking about how a set of three can be made up. Use of the stem sentence here is imperative.		**Key vocabulary:** 2 is a part of me, 1 is a part of me and the whole of me is 3.

Spring 1				
Week 1	Measure: short or long?	**Size** At this stage only focus on large/big and small/little. Use real life examples of objects that are large and small in relation to each other. Begin with objects that are vastly larger/smaller than each other and move onto objects with a smaller difference in size. Include reasoning e.g. 'do you think this large tree would fit into my small box?' **Length and height** In the first stage children should be able to apply the attribute of long, short, tall etc to various examples (e.g. a bus is long; an adult is tall; grass is short). Adults should be continuously modelling this language. The children should then move on to finding objects that are longer/shorter than a given item. They should be encouraged to utilise strategies such as direct comparison (e.g. placing objects side by side to determine which is longer). When comparing length and height verbally children should be encouraged to use language such as 'taller than/longer than/shorter than'. When comparing lengths directly children need to ensure that they align the starting points and compare like-for-like (e.g. straightening skipping ropes before comparing lengths).	**Other resources** Big Bear, Small Mouse – Karma Wilson & Jane Chapman **Other Resources** NCETM Early Years Typical Progression Chart – Measures https://nrich.maths.org/13374	**Key Vocabulary:** notice, big, large, small, little The _____ is smaller/larger than the _____. Key vocabulary: long, short, tall, longer than, shorter than, taller than The _____ is longer/shorter/taller than the _____.

Week 2	Measure: tall or short?	**Height** As above	**Other Resources** NCETM Early Years Typical Progression Chart – Measures https://nrich.maths.org/13374	Key vocabulary: long, short, tall, longer than, shorter than, taller than The _____ is longer/shorter/taller than the _____.
Week 3	Subitising to 3 including: more, less or same.	This week, the children will use their perceptual subitising skills (seeing the quantity without counting) in increasingly complex arrangements, moving from dots in a line and arrangements of 2, to a focus on standard dice arrangements. A key focus will be on developing skills of visualising; the children will be encouraged to look carefully at arrangements of dots and then to close their eyes and explain what they saw. Using spatial language to describe sub-groups within these arrangements will deepen the children's understanding of part–whole relations and allow them to further consider composition (the numbers within numbers). This week, the children will be encouraged to continue representing quantities in different ways, including by showing amounts on 1 hand 'all at once'. There will also be focus on comparing amounts, up to 3, using comparative language.		**Key vocabulary:** number, numeral, subitise, represent, how many, count, cardinal, first/second/third, compare, more, fewer, less, same, equal There are more _____ than _____ / there are fewer _____ than _____. 2 is a part of me, 1 is a part of me and the whole of me is 3.
Week 4	Number 4	When teaching numbers to 5 consider the counting principles at all times. Wherever possible, ensure that children are counting real-life objects. They could start by counting objects that are identical before moving on to counting objects that have slight difference e.g. different colours, different sizes, but make sure that the objects are of the same type. Encourage children to put objects in a line when counting so they have a clear start and end point. The five frame can be used to support children in lining up objects to count. It will also support children to subitise numbers within 5. Numerals may be introduced to children but they are not expected to write them at this stage. They could use drawings to represent their numbers. **Number 4** The following should be explored: • Counting to 4 • Finding 4 objects • Numicon 4 • Dice 4 • 4 actions e.g. 4 hops, 4 jumps, 4 claps • The numeral and formation of 4 • Number 4 in the environment • Representing 4 using marks, pictures and finger • Number blocks episode 4 • 4's position on a number line, ordinal numbers • Subitising 4 • Representing 4 on a 5 frame • Showing finger numbers • Squares and rectangles, including in the environment • Matching numeral to quantity • Composition of 4 (2 is a part of me, 2 is a part of me and the whole of me is 4; 3 is a part of me, 1 is a part of me and the whole of me is 4)	**Other Resources** Number Blocks Series 1: Four	**Key vocabulary:** number, numeral, subitise, represent, how many, count, cardinal, first/second/third etc
Week 5	Number 5	**Number 5** As above for number 4: (3 is a part of me, 2 is a part of me; 4 is a part of me, 1 is a part of me)	**Other Resources** Number Blocks Series 1: 5 Series 1: 6 Series 1: How to Count Series 1: The Whole of Me	**Key vocabulary:** number, numeral, subitise, represent, how many, count, cardinal, first/second/third etc
Week 6	2D Shape: Circles, Triangles and Squares + AB patterns with shape	**Shapes** The primary focus in relation shapes should be on the properties of shapes. For example, children should be encouraged to notice and describe shapes in the environment and talk about the properties using words such as 'straight/flat/round/curved'. When teaching the names of shapes, wherever possible, real life shapes in the environment should be used. Note that only flat surfaces should be referred to as faces. Include sorting of natural shapes; the children may sort stones, for example, into sets that have straight edges, sets that have curved edges etc.	**Other Resources** NCETM Early Years Typical Progression Chart – Shape and Space https://nrich.maths.org/13373	**Key vocabulary:** edge, curve, straight, round, flat, sides, face, corner, smooth, 2D, triangle, circle, square, rectangle ***Note: This is for staff to model.***

Spring 2				
Week 7	Subitising to 5	The children have already had lots of experience with subitising and making collections of small amounts. Their developing sense of the numbers to 5 will support a deep understanding of the composition of these numbers. Children should represent five using dots, Hungarian dice frames (to 5), five frames and their fingers during this week.		**Key vocabulary:** number, numeral, subitise, represent, how many, count, cardinal
Week 8	Comparing two groups - equal and unequal amounts to 3 (more, less, same)	The comparison of quantities is something that children begin to do as babies. When comparing, children notice attributes and begin to understand differences and similarities. The activities this week will focus on further developing this innate skill as the children are encouraged to focus exclusively on the numerosity of sets, without being diverted by colour, shape or size. They will then be encouraged to notice when quantities are equal or unequal, with a continued focus on the language of more, less, same/ equal.		**Key vocabulary:** number, numeral, subitise, represent, how many, count, cardinal, first/second/third, compare, more, fewer, less, same, equal There are more _____ than _____ / there are fewer _____ than _____.
Week 9	Composition of objects up to five: partitioned into parts	Children should be given lots of hands-on experience to subitising small quantities and will use their existing skills to identify the numbers within 5. Children should practise counting to five, counting five objects and building five from different parts using varied resources e.g. cubes, Numicon, five frames and counters etc. They might make towers of blocks and patterns of 5 in different ways, and will begin to recognise the numbers that combine to make 5. When the children can compose and flexibly decompose numbers mentally, they will become more fluent in their knowledge of number bonds and will be able to use these to become efficient when calculating in later stages of Key Stage 1 and Key Stage 2.		**Key vocabulary:** number, numeral, subitise, represent, how many, count, cardinal **5 is the whole, ____ is a part and ____ is a part.**
Week 10	3D shapes	**Shapes** The primary focus in relation shapes should be on the properties of shapes. For example, children should be encouraged to notice and describe shapes in the environment and talk about the properties using words such as 'straight/flat/round/curved'. When teaching the names of shapes, wherever possible, real-life shapes in the environment should be used. Note that only flat surfaces should be referred to as faces. Include sorting of natural shapes; the children may sort stones, for example, into sets that have straight edges, sets that have curved edges etc.	**Other Resources** NCETM Early Years Typical Progression Chart – Shape and Space https://nrich.maths.org/13373	**Key vocabulary:** edge, curve, straight, round, flat, sides, face, corner, smooth, 3D, cube, cone, pyramid, cylinder ***Note: This is for staff to model.***
Week 11	Counting to 10	**Counting principles** As above. Give pupils opportunities to count in different contexts and environments, with both concrete and abstract items e.g. cubes vs claps. Introduce children to counting games and rhymes too.	**Other Resources** One Fox – Kate Read 10 cats – Emily Gravett One to ten and back again – Nick Sharratt How many legs? – Kes Gray & Jim Field One is snail, Ten is crab – April Pulley Sayre & Jeff Sayre	**Key vocabulary: count**
Week 12	Positional Language	**Building with blocks/shapes** This is a really important activity for nursery children as it supports the foundations of developing Mathematical thinking and language. By building different constructions using blocks and other construction materials, children begin to develop mathematical language, problem solve, logic and reasoning as well as promoting imaginative play. Try to do this activity regularly for about 10 minutes per session. Choose a time when your child is not tired or hungry. **Positional language** Children need opportunities to be exposed to and to use the language of position and direction; *Position: 'in', 'on', 'under'. Direction: 'up', 'down', 'across'* Children also need opportunities to use terms which are relative: *'in front of, 'behind', 'on top of'.* Create as many opportunities as possible to explore this language such as hunting for hidden objects with some prompts (e.g. look behind the shed).	**Other Resources** Block City – Robert Louis Stevenson When I built with blocks – Nick Ailing Tonograms **Other Resources** NCETM Early Years Typical Progression Chart – Shape and Space https://nrich.maths.org/13373	**Key Vocabulary:** Blocks, stack, build, on top **Key vocabulary**: in, on, under, up, down, across, in front of, behind, on top of. The _____ is (*position*) the _____.

Summer 1				
Week 1	Shape and pattern review	**Concepts identified from prior learning for further review.**		**As previously introduced**

Week 2	Subitising, equal and unequal groups review	**Concepts identified from prior learning for further review.**		**As previously introduced**
Week 3	Measure: heavy or light?	**Weight** Initially begin with identifying objects the children think may be heavy – use lots of adult modelled language. Move on to comparing weights. One way to identify this is to identify that a heavier object creates a greater downwards pull. Ask children to hold a carrier bag; encourage them to notice if it feels as though their hand is being pulled down when something heavy is put in it. Place a carrier bag in each hand and identify which one is heavier by discussing which arm feels more pulled down. Explore the link to the balance scales to show that the heavier side goes down. Exemplify this with a see-saw 'What can we do to make this side of the see-saw go down?'. Ensure that children are presented with large but light objects and small but heavy objects to prevent the generalisation that big means heavy and small means light.	**Other Resources** NCETM Early Years Typical Progression Chart – Measures https://nrich.maths.org/13374	**Key vocabulary**: Heavy, heavier than, light, lighter than, balanced The _____ is heavier than/lighter than the _____.
Week 4	Measure: full or empty?	**Capacity** Children should be given daily opportunity for sand and water play which can provide lots of opportunities to explore capacity. Children should be able to identify when a container is empty and full, and extend to half full. Initially children should be exposed to the comparison of full, half full, empty using the same container. However this can be moved on by talking about different size containers (e.g. I wonder whose pot will hold the most water?' When comparing capacities directly children can pour from one container to another to find which holds more or less water.	**Other Resources** NCETM Early Years Typical Progression Chart – Measures https://nrich.maths.org/13374	**Key vocabulary:** full, half full, empty, most, least The container is full/half full/empty. The _____ holds the most/least water.
Week 5	Representing numbers to 5	**Concepts identified from prior learning for further review.**		**As previously introduced**
Week 6	Counting to 10	**Concepts identified from prior learning for further review.**		**As previously introduced**

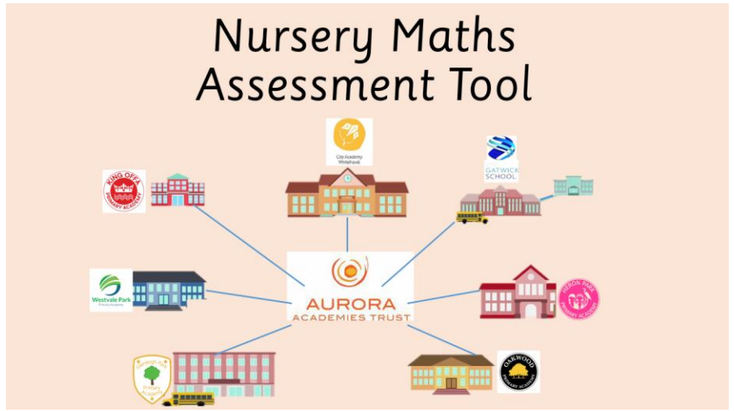
Summer 2				
Week 7	Subitising and representing numbers to 5	**Concepts identified from prior learning for further review.**		**As previously introduced**
Week 8	Measure review	**Concepts identified from prior learning for further review.**		**As previously introduced**
Week 9	Adding zero (within 5)	**In preparation for reception, beginning to look at additive fluency, children should be introduced to the concept of zero (none or no more). Building upon their subitising and key representations, children should be introduced to the written symbol for addition (+) and concept of adding zero to any number up to and including five through practical apparatus. Challenging children to write numerals here is key!**	**Other resources** **KS1 additive fluency cards: Stage 1 – adding zero**	**Key vocabulary: add, plus, zero, no more, none, numerals, sum**
Week 10	Adding one more (within 5)	**Continuing looking at additive fluency, within five, children should build upon their understanding of ordinality, by looking at the concept of one more.** Their growing understanding of ordinality will develop into a generalisation that every whole number is 1 more than the previous number. This will begin to provide depth of understanding about our counting system. Children should explore the staircase pattern of Numicon and tower building, comparing number to five, looking for the one more bit.		**Key vocabulary: one more, count, next, number, numeral.** **One more than ____ is ____.** **_____ is one more than _____.**
Week 11	Positional language – routes and locations (transition)	**Continue to build upon children's prior learning around positional language to explore transition routes to and from their new classrooms or through other varied route making/ location activities.**		**Key vocabulary**: in, on, under, up, down, across, in front of, behind, on top of. The _____ is (*position*) the _____.
Week 12	Review Week	**Concepts identified from prior learning for further review.**		**As previously introduced**

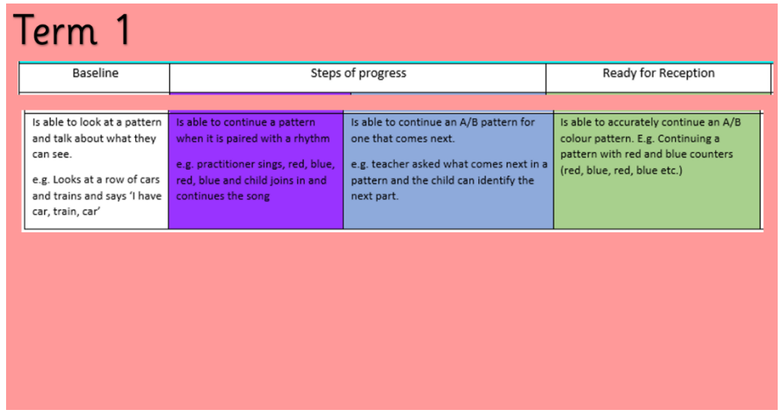
Nursery AAT Maths Assessment Profile

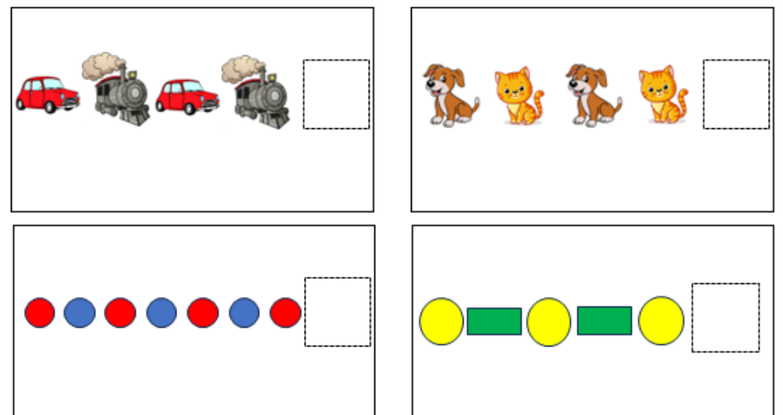
Tracker:

			Term 1	Term 2			Term 3											Term 4				Term 5	
			AB Patterns	Subitise	Subitise	Subitise	Separate 3 into whole and part	Compare length	Compare height	Compare sets			Recite numbers 0 - 5						Represent a quantity using objects	Recognise and name some 2D shapes	Identify equal and unequal groups	Recognise and name some 3D shapes	I can count to...	Positional Langauge	Compare mass (weight)	Compare capacity (full or empty)
NURSERY MATHS ASSESSMENT: Ready for Reception				1	2	3				more	less	same	0	1	2	3	4	5							
Surname	First name	D.O.B																							

Nursery Maths Assessment Tool (PowerPoint):







The nursery maths assessment tool is a resource designed to support accurate and ongoing summative assessment of pupils understanding of key concepts, covered across the course of the year. It is shared across the Trust to promote consistency and recording of pupil attainment information to pass on to the Early Years teams.

The maths assessment tool is designed to assess pupil's understanding at the end of a unit of learning, linked to the steps of progress 'ready for reception' criterion. The steps of progress related to each mini-assessment are included on this resource to support nursery practitioners with what to look for. The resource is ordered in line with the scheme of learning.

For each ready for reception criterion, there are a sample of questions, which can aid nursery practitioners with their assessment judgements. Judgements do not need to be made solely using this resource and the use of other practical apparatus is actively encouraged.

Aurora Steps of Progress for Maths – Nursery to EYFS

Mathematics Number				
Baseline	Steps of progress		Ready for Reception	ELG
Is able to recite numbers to 3. e.g. singing 'all stand up with a 1, 2, 3'	Is able to count with 1:1 correspondence to 3. e.g. Moving or touching 3 bears and counting them accurately, naming the number at the same time.	Is able to understand the cardinal value of a set of objects to 3. e.g. understands the last number said when counting represents the total number of objects.	Is able to subitise a regular arrangement of up to 2 objects *e.g. The child recognises there is two dots on a dice*	Subitise (recognise quantities without counting) up to 5 *e.g. instant recognition*
			Is able to separate a group of 3 objects in different ways; begins to recognise that the total stays the same. *e.g. "I've got 3 bricks. 2 are red and 1 is blue."*	Automatically recall number bonds (addition facts) up to 5 and then *some* up to 10 *Children may sometimes pair this with a physical action but will not rely on this to work out the answer.* Automatically recall Subtraction facts up to 5 *Children may sometimes pair this with a physical action but will not rely on this to work out the answer.*
Is able to identify when 2 objects are the same.	Is able to count with 1:1 correspondence to 3. e.g Moving or touching 3 bears and counting them accurately, naming the number at the same time.	Is able to understand the cardinal value of a set of objects to 3. e.g. understands the last number said when counting represents the total number of objects.	Is able to identify two equal groups of objects up to 3. *e.g. Looking at groups. "They both have the same!"*	Automatically recall double facts (to 10) Children *may sometimes pair this with a physical action but will not rely on this to work out the answer.*

Is able to join in with parts of number rhyme games and demonstrates an awareness of the number system when doing so e.g. being able to join in with some of the counting parts of a song e.g. 1,2,3,4,5 once I caught a fish	Is able to recite numbers to 5 in song/games. e.g. Singing '1, 2, 3, 4, 5, once I caught a fish alive'.	Is able to understand that numbers can represent things that are not physically present e.g 5 sleeps until Christmas	Is able to use number names in speech and play. Is able to say numbers that are important to them e.g. *"I am __ years old!"* Is able to recite numbers 0-5 in order accurately. Is able to partition a group of objects into parts. *e.g. "I've got some cars. 2 red and 2 blue cars."*	Have a deep understanding of numbers to 10, including the composition of each number. *e.g. "I have 3 parts you have 4 parts. 7 is the whole."* *"7 is made up of 3 and 4."*

Mathematics Numerical Patterns				
Baseline	Steps of progress		Ready for Reception	ELG
Is able to recite numbers to 3. e.g. singing 'all stand up with a 1, 2, 3'	Is able to recite numbers to 5. e.g. Singing '1, 2, 3, 4, 5, once I caught a fish alive'.	Is able to recite numbers beyond 5 potentially with some errors.	Is able to verbally count to 10.	Verbally count beyond 20, recognise the pattern of the counting system.
Is able to correctly use the language 'more' in everyday situations when the difference is significant. E.g. "You have more raisins than me!"	Is able to correctly use the language 'same' when comparing objects within 3. e.g. Looks at a domino/ladybug and identifies it has 2 spots on both sides which is the same.	Is able to identify when a group of objects has significantly less than another group within 5. e.g. Showing 4 bears and 1 bear and the child identifying the group that has less.	Is able to correctly use the language 'more', 'less' and 'same' in everyday situations. *e.g. "You have more bricks, I have less bricks."* Is able to compare 2 groups of up to 3 objects, using the language 'more', 'less' and 'same.	Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
Is able to give the practitioner 1 objects from a group of objects. E.g. "Give me 1 bear"	Is able to accurately demonstrate 1-1 correspondence when counting a group of objects up to 5 but may not identify the total correctly. E.g. Child counts three objects accurately. When asked how many they may answer with a different number.	Is able to count out up to 3 objects from a larger group. E.g. Shown a bowl of bears, child is asked to give the adult 3 bears from the bowl.	Is able to represent a quantity using objects. *When asked "show me 3" can use objects around them to represent 3.*	Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally
Is able to look at a pattern and talk about what they can see. e.g. Looks at a row of cars and trains and says 'I have car, train, car'	Is able to continue a pattern when it is paired with a rhythm e.g. practitioner sings, red, blue, red, blue and child joins in and continues the song	Is able to continue an A/B pattern for one that comes next. e.g. teacher asked what comes next in a pattern and the child can identify the next part.	Is able to accurately continue an A/B colour pattern. E.g. Continuing a pattern with red and blue counters (red, blue, red, blue etc.)	No requirement in the statutory framework

Mathematics Shape Space and Measure				
Baseline	Steps of progress		Ready for Reception	ELG
Is able to use some positional language e.g. in, on and under.	Is able to follow an adult instruction e.g. put the car on the table.	Is able to give an instruction using positional language. E.g. the child will tell another child "put the teddy on the chair"	Is able to understand position through words alone e.g. behind, over, on top of, in front. Is able to discuss routes and locations using familiar language e.g. going on a bear hunt.	No requirement in the statutory framework
Is able to describe weight e.g. "It is heavy"	Is able to say something is heavy or not heavy. E.g. through sorting.	Is able to use the vocabulary 'light' to describe something that is not heavy.	Is able to explore the weight of two objects as heavy and light.	
Is able to describe length using the words big and little within an activity.	Is able to use long to describe the length of an object e.g. "the snake is long"	Is able to use the vocabulary 'short' to describe the length of an object.	Is able to compare the length of two objects as long and short.	
Is able to describe height using the words big and little within an activity.	Is able to use tall to describe height e.g. "my dad is really tall"	Is able to use vocabulary 'short' to describe the height of an object.	Is able to compare height using the words tall, short.	
Is able to explore capacity within sand and water play with words e.g. "it's gone"	Is able to use the vocabulary of empty during play.	Is able to use the vocabulary of full during play.	Is able to describe capacity using words full and empty.	

Is able to recognise some 2D shapes e.g. circle, triangle and square	Is able to name some 2D shapes independently e.g. “It is a circle”	Is able to recognise some 3D shapes in their environment.	Is able to recognise and name some 2D shapes and some 3D shapes e.g. cone and cube.	

Early Years Foundation Stage (EYFS)

White Rose Materials	Fluency ELG and steps of progress concepts	Mastering Number Subitising	Mastering Number Cardinality, Ordinality & Counting	Mastering Number Composition	Mastering Number Comparison	Fluency Addition & Subtraction/ Number Facts	Trust-identified Assessment Weeks ★

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn Term	Getting to know you: Baseline Assessment Period (RBA & AAT Baselines) ★			Subitising within 3 (MN Wk1)	Focus on counting skills (MN Wk2)	Composition of 3 and 4 (MN Wk3)	Subitising objects & sounds (MN Wk4)	Comparison of sets – by looking (MN Wk5)	Focus on counting skills (MN Wk6)	Comparison of sets – by matching (MN Wk7)	Composition – whole & part (MN Wk8) (Focus on addition & subtraction facts)	Composition of 3,4 and 5 (MN Wk9) (Focus on addition & subtraction facts)
				It’s me: 1,2,3 (WR)		It’s me: 1,2,3 (WR)		Match, sort & compare (WR)	1,2,3,4,5 (WR)	Match, sort & compare (WR)	★	1,2,3,4,5 (WR)
				Subitising to 5			Pattern with a focus on AB patterns			Additive fluency: Stage 2 Adding one more		

	Introduction to shape focusing on 2D/ 3D shape names and basic properties			Additive fluency: Stage 1 Adding zero			Counting to 10: Recognising numerals to 10			Subtraction focus: Finding one less (inverse of one more)		
Spring Term	Talk about measure (WR)	Talk about patterns (WR)	Practise object counting, matching numerals & quantities (MN Wk10)	Subitising within 5 (MN Wk11)	Counting – focus on ordinality (staircase pattern), one more, one less (MN Wk12)	Shape: Circles & Triangles (WR)	Composition of 5 (MN Wk13)	Composition of 6 and 7 as '5 and a bit' (MN Wk14)	Composition for comparison and to make unequal sets equal (MN Wk15)	Shapes with four sides (WR)	Counting, ordinality and cardinality (focus on staircase pattern and ordering) (MN Wk16)	Comparison (ordering numbers to 8) (MN Wk17)
				Alive in 5 (WR)	Alive in 5 (WR)		Alive in 5 (WR)	Growing 6,7,8 (WR)	★			Growing 6,7,8 (WR)
	Additive fluency: Stage 3 Number bonds to five						Counting to 20: Recognising numerals to 20			Additive fluency revisiting of Stages 1, 2 & 3		
Summer Term	Composition of 7 (MN Wk18)	Composition – Doubles (MN Wk19)	Mass & capacity (WR)	Composition – odd and even (MN Wk20)	Length, height & time (WR)	Counting – larger sets & abstract things (MN Wk21)	Subitising to 6 (MN Wk22) Composition – 5 and a bit (MN Wk23)	2D shapes & pattern: manipulate, compose & decompose (WR)	Composition of 10 (MN Wk24)	Comparison (track games) (MN Wk25) 3D Shapes (WR)	Visualise, build and map (positional language) (WR)	Review Week (MN Wk26) Number bonds Comparison Patterns Counting
	Growing 6,7,8 (WR)		★	Sharing & grouping (WR)	Local Authority Data Submission Deadline	To 20 and beyond (WR)	Building 9 and 10 (WR)		Building 9 and 10 (WR)			
	Additive fluency: Stage 4 Doubles						Counting beyond 20: Recognising numbers to 100 (Y1 readiness)		Additive fluency Stages 4 & 5: Composition of numbers 5,6,7,8 and 9 Stage 6: Number bonds to 10			

Original documentation: White Rose Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Getting to know you		**Match, sort and compare** FREE TRIAL VIEW		**Talk about measure and patterns** VIEW		**It's me 1, 2, 3** VIEW		**Circles and triangles** VIEW	**1, 2, 3, 4, 5** VIEW		**Shapes with 4 sides** VIEW
Spring term	**Alive in 5** VIEW		**Mass and capacity** VIEW		**Growing 6, 7, 8** VIEW		**Length, height and time** VIEW		**Building 9 and 10** VIEW		**Explore 3-D shapes** VIEW	
Summer term	**To 20 and beyond** VIEW		**How many now?** VIEW		**Manipulate, compose and decompose** VIEW		**Sharing and grouping** VIEW		**Visualise, build and map** VIEW	**Make connections** VIEW	Consolidation	

Original documentation: Mastering Number Overview

Autumn 1	Week 1	Week 2	Week 3	Week 4	Week 5
Focus	Subitising	Counting, ordinality and cardinality	Composition	Subitising	Comparison
Set 1	Subitising within 3	Focus on counting skills	Explore how all numbers are made of 1s Focus on composition of 3 and 4	Subitise objects and sounds	Comparison of sets - 'just by looking' Use the language of comparison: *more than* and *fewer than*
Autumn 2	**Week 6**	**Week 7**	**Week 8**	**Week 9**	**Week 10**
Focus	Counting, ordinality and cardinality	Comparison	Composition	Composition	Counting, ordinality and cardinality
Set 2	Focus on counting skills Focus on the 'five-ness of 5' using one hand and the die pattern for 5	Comparison of sets - by matching Use the language of comparison: *more than, fewer than, an equal number*	Explore the concept of 'whole' and 'part'	Focus on the composition of 3, 4 and 5	Practise object counting skills Match numerals to quantities within 10 Verbal counting beyond 20

Spring 1	Week 11	Week 12	Week 13	Week 14	Week 15
Focus	Subitising	Counting, ordinality and cardinality	Composition	Composition	Composition
Set 3	Subitise within 5 focusing on die patterns Match numerals to quantities within 5	Counting – focus on ordinality and the 'staircase' pattern See that each number is one more than the previous number	Focus on 5	Focus on 6 and 7 as '5 and a bit'	Compare sets and use language of comparison: *more than, fewer than, an equal number to* Make unequal sets equal
Spring 2	**Week 16**	**Week 17**	**Week 18**	**Week 19**	**Week 20**
Focus	Counting, ordinality and cardinality	Comparison	Composition	Composition	Composition
Set 4	Focus on the 'staircase' pattern and ordering numbers	Focus on ordering of numbers to 8 Use language of *less than*	Focus on 7	Doubles – explore how some numbers can be made with 2 equal parts	Sorting numbers according to attributes - odd and even numbers

Summer 1	Week 21	Week 22	Week 23	Week 24	Week 25	
Focus	Counting, ordinality and cardinality	Subitising	Composition	Composition	Comparison	
Set 3	Counting – larger sets and things that cannot be seen	Subitising – to 6, including in structured arrangements	Composition – '5 and a bit'	Composition - of 10	Comparison – linked to ordinality Play track games	
Summer 2	**Week 26**	**Review and assess**	**Review and assess**	**Review and assess**	**Review and assess**	**Review and assess**
Set 4	Subitise to 5 Introduce the rekenrek	Automatic recall of bonds to 5	Composition of numbers to 10	Comparison	Number patterns	Counting

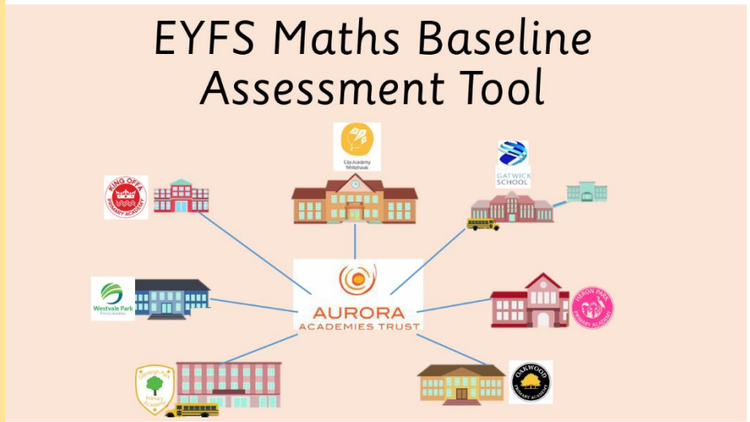
AAT Maths Assessment Tracker:

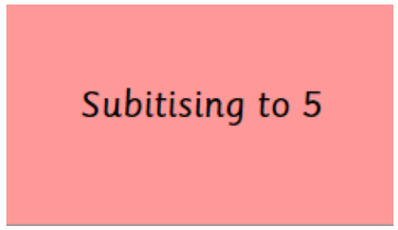
			Term 1					Term 2											Term 4									
			Subitising					Recognising Numerals 0 - 10										I can count to	Recognising Numerals 11 - 20									
			1	2	3	4	5	0	1	2	3	4	5	6	7	8	9	10		11	12	13	14	15	16	17	18	19	20
Surname	First name	D.O.B																										

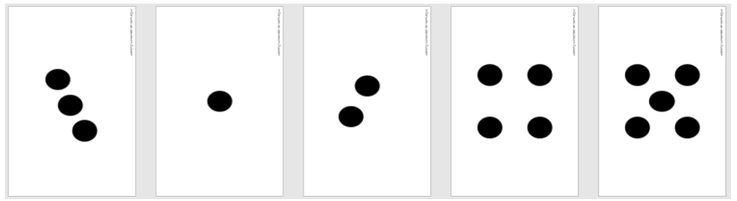
Additive Fluency:

Term 1											Term 2							Term 3			Term 5					Term 6										
Additive fluency facts																																			
Stage 1: Adding Zero											Stage 2: Adding one more							Subtraction Facts: One less than...					Stage 3: Number bonds to five			Stage 4: Doubles					Stage 6: Number bonds to 10					Subtraction Facts (within 10)						
1 + 0	2 + 0	3 + 0	4 + 0	5 + 0	6 + 0	7 + 0	8 + 0	9 + 0	10 + 0	2 + 1	3 + 1	4 + 1	5 + 1	6 + 1	7 + 1	8 + 1	5	4	3	2	1	0 + 5	1 + 4	3 + 2	1 + 1	2 + 2	3 + 3	4 + 4	5 + 5	0 + 10	1 + 9	2 + 8	3 + 7	4 + 6	4 - 2 =	6 - 3 =	9 - 5 =	8 - 3 =	10 - 5 =	7 - 5 =

EYFS Maths Baseline Assessment Tool (PowerPoint)







The EYFS maths assessment tool is a resource designed to support accurate and ongoing summative assessment of pupils understanding of key concepts, covered across the course of the year, linked to principle Early Learning Goals. It is shared across the Trust to promote consistency and recording of pupil attainment information.

The maths assessment tool is designed to assess pupil's understanding of each Early Learning Goal. The resource is ordered in line with termly delivery and teaching of concepts and specifies which area is being assessed prior to a sequence of slides to support teacher judgements.

For each area, there are a sample of questions, which can aid EYFS practitioners with their assessment judgements. Teacher dialogue and explicit instruction should accompany the delivery of each slide to support pupils. Note: judgements do not need to be made solely using this resource and the use of other practical apparatus is actively encouraged.