

## Saplings Progression of skills - Maths

Counting Number Ordering Numbers One less and subtraction One more and addition Number bonds  
Comparing number Doubling Sharing and halving Shape Patterns Weight Length and height Time  
Capacity

### Pre preschool

Combine objects like stacking blocks and cups. Put objects inside others and take them out again.

- Take part in finger rhymes with numbers.
- React to changes of amount in a group of up to three items.
- Compare amounts, saying 'lots', 'more' or 'same'.
- Develop counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence.
- Count in everyday contexts, sometimes skipping numbers - '1-2-3-5.'
- Climb and squeeze themselves into different types of spaces.
- Build with a range of resources.
- Complete inset puzzles.
- Compare sizes, weights etc. using gesture and language - 'bigger/ little/smaller', 'high/low', 'tall', 'heavy'.
- Notice patterns and arrange things in patterns

### Preschool

- Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').
- Recite numbers past 5.
- Say one number for each item in order: 1,2,3,4,5.
- Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').
- Show 'finger numbers' up to 5.
- Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
- Experiment with their own symbols and marks as well as numerals.
- Solve real world mathematical problems with numbers up to 5.
- Compare quantities using language: 'more than', 'fewer than'.
- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.
- Understand position through words alone – for example, "The bag is under the table," – with no pointing.
- Describe a familiar route.
- Discuss routes and locations, using words like 'in front of' and 'behind'.
- Make comparisons between objects relating to size, length, weight and capacity.
- Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc.
- Combine shapes to make new ones – an arch, a bigger triangle, etc.
- Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc.
- Extend and create ABAB patterns – stick, leaf, stick, leaf.
- Notice and correct an error in a repeating pattern.
- Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'

### Early Number sense - Counting

<b>Object Counting</b>	<b>(a)</b> I can use one-to-one correspondence when counting and understand that the last number said is the number in the set.	<b>(b)</b> I can count up to 5 objects (including different sized objects) moving each as they are counted.	<b>(c)</b> I understand that objects can be counted in any order or arrangement and the answer is still the same.	<b>(d)</b> I can count up to 10 objects (including different sized objects) moving each as they are counted.	<b>(e)</b> I can count out a given amount up to 10 (identified verbally or written) from a greater set.
<b>Matching quantities and numerals -</b>	<b>(a)</b> I can use one to one correspondence when counting and I	<b>(b)</b> I can count up to 3 objects (including different	<b>(c)</b> I can count up to 5 objects (including different	<b>(d)</b> I can count up to 10 objects (including different sized objects), moving each as they are counted.	

<b>Counting sets of objects.</b>	understand the last number said is the number in the set	sized objects), moving each as they are counted. I can match the set to the numeral.	sized objects), moving each as they are counted. I can match the set to the numeral	I can match the set to the numeral.
<b>Perceptual Subitising</b>	<b>(a)</b> I can recognise familiar arrangements for numbers up to 5 when on a dice or domino	<b>(b)</b> I can identify quantities of objects up to 5 when placed in a dice or domino arrangement	<b>(c)</b> I can identify quantities of objects from 1 to 3 when arranged randomly	<b>(d)</b> I can explore arrangements of quantities within 5 using a ten frame
<b>Counting pictures that cannot be moved.</b>	<b>(a)</b> I can count up to 5 objects, <b>moving</b> each as they are counted	<b>(b)</b> I can count up to 5 pictures that cannot be moved, <b>marking</b> each as they are counted.		<b>(c)</b> I can count up to 10 pictures that cannot be moved, <b>marking</b> each as they are counted
<b>Counting Objects - Counting Beyond Ten</b>	<b>(a)</b> I can count up to 10 objects, moving each as they are counted Count out a group of 10 objects from a greater set	<b>(b)</b> I can recognise that when a ten frame is full this represents 10 Recognise a 10 Numicon Shape		<b>(c)</b> ) I can use structured equipment number such as bundles of art straws, Unifix (tower of 10), Ten Frame with counters to create a group of 10 plus another group
<b>Counting Objects - Mathematical Representations and Graphics.</b>	<b>(a)</b> I can represent a given amount up to 3 using marks and pictures and explain my jottings.	<b>(b)</b> I can represent a given amount up to 5 using marks and pictures and explain my jottings.	<b>(c)</b> I can represent a given amount up to 10 using marks and pictures and explain my jottings.	<b>(d)</b> I can represent my simple mathematical ideas and calculations using pictures symbols and numerals and explain it.
<b>Counting Objects - Mathematical Representations</b>	<b>(a)</b> I can represent a given amount up to 3 using objects and pictures.	<b>(b)</b> I can represent a given amount up to 5 using objects and pictures.	<b>(c)</b> I can represent a given amount up to 10 using objects and pictures.	<b>(d)</b> I can represent my simple mathematical ideas and calculations using objects and pictures.
<b>Comparing groups of objects or numbers</b>	<b>(a)</b> I can identify a set that has more and a set that has fewer by pointing/ highlighting when requested. (Sets are very obviously different)	<b>(b)</b> I can identify a set that has more and a set that has fewer by pointing/ highlighting when requested. (Range up to ten)	<b>(c)</b> I can identify a set that has more and a set that has fewer using the correct language. (Range up to ten)	<b>(d)</b> I am beginning to identify a set that has more and a set that has fewer using the correct language.

<b><u>Numbers– Reading and Writing</u></b>				
<b>Recognising and ordering numerals</b>	<b>(a)</b> I can name the numerals 1-3 when shown out of order and I can place these numerals in order.	<b>(b)</b> I can name the numerals 1-5 when shown out of order and I can place these numerals in order.		<b>(c)</b> I can name the numerals 1-10 when shown out of order and I can place these numerals in order.
<b>Ordering numerals</b>	<b>(a)</b> I can put the numerals 0 to 5 in order when all are given	<b>(b)</b> I can put the numerals 0 to 9 in order when all are given	<b>(c)</b> I can put the numerals 0 to 10 in order when all are given	<b>(d)</b> I can find the numeral that comes before, after or between a given numeral in a range to 10.
<b>Recording numerals</b>	<b>(a)</b> I can make marks to represent numerals.	<b>(b)</b> I am beginning to write the numerals 1 to 3 for a given purpose.	<b>(c)</b> I can write the numerals 0 to 5 for a given purpose.	<b>(d)</b> I can write the numerals 0 to 9 for a given purpose.
<b><u>Ordering numbers and Number Representations.</u></b>				
<b>Ordering pictorial number representations.</b>	<b>(a)</b> I can order the pictorial representations of the numbers from 0-5.	<b>(b)</b> I can order the pictorial representations of the numbers from 0-9.	<b>(c)</b> I can order the pictorial representations of the numbers from 0-10.	<b>(d)</b> I can order a random set of pictorial number representations within the range 0 to 10.
<b>Ordinal Numbers</b>	<b>(a)</b> I can follow instructions including ordinal numbers for first, second and third. (Lining up. Order in a game/ race)	<b>(b)</b> I can follow instructions including ordinal numbers for first, second, third- tenth. (Lining up. Order in a game/ race)	<b>(c)</b> I can correctly use some ordinal numbers in context, e.g., lining up or racing.	<b>(d)</b> I can correctly use many ordinal numbers in context, e.g., lining up or racing.
<b>Ordering numerals</b>	<b>(a)</b> I can put the numerals 0 to 5 in order when all are given	<b>(b)</b> I can put the numerals 0 to 9 in order when all are given		<b>(c)</b> I can put the numerals 0 to 10 in order when all are given

### Finding one less and Subtraction

<b>Finding one less/ one fewer (objects)</b>	<b>(a)</b> I understand the concept of finding one less object as removing one amount from within another.	<b>(b)</b> I know that fewer and less mean the same thing, but fewer is used when counting objects and removing/ taking away objects from an existing group. (Working with objects to 5)	<b>(c)</b> I know that one less is the next number in the counting sequence when counting backwards in ones. -I find the number that is one less within 1-5 by using objects, number lines and mental recall.
<b>Rote counting backwards</b>	<b>(a)</b> I can join in with rote count from 1-10	<b>(b)</b> I can rote count backwards from 5 to 1	<b>(c)</b> I can rote count backwards from 10 to 1
<b>Counting Back</b>	<b>(a)</b> I understand the concept of take away and counting back one as the removal of one object.		<b>(b)</b> I understand and can use number lines to count back small jumps of 1, 2 or 3 more jumps.
<b>Problem Solving with subtraction</b>	<b>(a)</b> I can solve simple problems using numbers to 5 with 1:1 support.	<b>(b)</b> I can solve simple problems using numbers to 5 with within a group.	<b>(c)</b> I can solve simple problems using numbers to 5. I can practically explore different ways using my own ideas. <b>Adding, subtracting and sharing.</b>

### Finding one more and Addition

<b>Finding one more</b>	<b>(a)</b> I understand that to find one more, I need to add one object to an existing group of objects.	<b>(b)</b> I understand how to find one more object with sets in a range up to 5 by correctly adding on one more object.		<b>(c)</b> I know that one more is the next number in the counting sequence when counting forward in ones. -I find the number that is one more within 1-5 by using objects, number lines and mental recall.	
<b>Counting On</b>	<b>(a)</b> I understand the concept of addition as combining sets of objects	<b>(b)</b> I know that two/three/four more is found by adding two/three/four objects to an existing group of objects	<b>(c)</b> I recognise that two more is one more and another one more, three more is one more, and one more and one more, etc.	<b>(d)</b> I understand and can use number lines to count on small jumps of 1, 2 or 3 more jumps.	<b>(e)</b> I can count on smaller numbers using mental calculation.

Addition - combining sets of objects	(a) I am beginning to understand the concept of addition as combining sets of objects	(b) I understand that the terms add, total, altogether relate to combining groups of objects		(c) I can combine two groups of objects (total within 5) counting how many are there.	
Comparison					
More than/less than	(a) I can compare two collections of items that are obviously different using the language 'more' and 'less'.	(b) I can count the amount of each group to find which has more and which has less.		(c) I can compare two groups of the same objects e.g. 2 groups of cubes.	(d) I can compare two groups of different sized objects (where there are more of the smaller object) e.g. more small beads and less large animal toys.
Identify groups with the same number of things	(a) I am beginning to understand through stories that groups can be equal.		(b) I can say when a group is 'equal' or 'the same'.		(c) I can check a group is equal by matching objects on a one-to-one basis.
Assessment Focus (4): Combine two numbers (numerals) to double a number. – Developing mental recall.	(a) I am beginning to understand that to double, I need to add the same small number to itself. (1-3)	(b) I understand that to double, I need to add the same small number to itself. I can do this with some support. (1-3)		(c) I understand that to double, I need to add the same number to itself. I can double the numbers 1-5.	(d) I understand that to double, I need to add the same number to itself. I can double the numbers 6-10.
Shape					
Naming and identifying 2D & 3D Shapes	(a) I can identify (point to) some of the common 2D 3D shapes for star, circle, and square.			(b) I can identify and name the common regular 2D 3D shapes for circle, square, triangle and rectangle/oblong.	
Describing Shapes	(a) As I play with and explore shapes, I can use informal language such as pointy, round or flat.	(b) I can understand and begin to use the terms, 'straight', 'flat', 'curved' and 'edges' as I explore and identify shapes in the environment.		(c) I can show an understanding that sides and corners refer to <u>2D shapes</u> , and I can identify these on common 2D shapes.	(d) I can show an understanding that faces and solid refer to <u>3D shapes</u> , and I can identify and talk about these on common 3D shapes.

<b>Spatial Reasoning</b>	<b>(a)</b> I can match simple shapes by finding a shape that is the same.	<b>(b)</b> I can complete a simple jigsaw or shape puzzle.		<b>(c)</b> When completing jigsaws and shape puzzles, I can talk about why I chose a particular shape.	
<b><u>Patterns (of a shape not numbers)</u></b>					
<b>Repeating Patterns</b>	<b>(a)</b> I am beginning to recognise when a set of objects or shapes are placed in a repeating pattern, and when they are not and talk about them with informal language E.g., spots and points.	<b>(b)</b> I can identify a simple ababab pattern, and I can say what the pattern is. E.g., red, blue, red, blue.	<b>(c)</b> I can talk about, copy, continue and make a simple ababab (2) pattern. I notice mistakes in patterns.	<b>(d)</b> I can talk about, copy, continue and make a simple abcabc patterns (3) and abbabb patterns. I notice mistakes in patterns.	
<b><u>Measures - Weight</u></b>					
<b>Comparing Weights</b>	<b>(a)</b> I can make comparisons and compare the weight of 2 items.		<b>(b)</b> I can find another item of similar weight to a given one.		
<b>Using balances</b>	<b>(a)</b> I can explore what happens when two objects are placed on each side of a balance scale.	<b>(b)</b> I can use a balance scale to compare the weights of two objects. I understand the lower side is the heavier object and the higher side contains the lighter object.		<b>(c)</b> I understand that if the balance scale is level, the objects being compared are equal in weight.	
<b>Using mathematical language to describe measuring weight.</b>	<b>(a)</b> I understand that weight refers to how heavy or light an object is.	<b>(b)</b> I can identify (point to) the heavy and light object when asked to.	<b>(c)</b> I can correctly use the term, 'heavy' when referring to an object.	<b>(d)</b> I can correctly use the term, 'light' when referring to an object.	<b>(e)</b> I can correctly use the terms heavy/ heavier, heaviest, light, lighter and lightest as I compare, describe and order the weight of objects.
<b><u>Measures – Length and width</u></b>					
<b>Comparing Lengths</b>	<b>(a)</b> I can make direct comparisons and compare the length/height/width of 2 items.		<b>(b)</b> I can find another item of similar length/height/width to a given one.		
<b>Using mathematical language to describe measuring length/ height</b>	<b>(a)</b> I understand that length refers to how long or short an object is.	<b>(b)</b> I can identify (point to) the long and short object when asked to.	<b>(c)</b> I am beginning to correctly use the term, 'long/ longer/ longest' when referring to an object.	<b>(d)</b> I can correctly use the term, 'short/ shorter/ shortest' when referring to an object.	<b>(e)</b> I am beginning to correctly use the terms, long/ longer/ longest, short/ shorter/ shortest', as I compare, describe and order the length of objects.
<b><u>Measures – Time</u></b>					

Using language to describe the passing of time.	(a) I can understand that I can compare events using words such as 'before' and 'after'.	(b) I can use the word 'before', understanding that it refers to preceding a particular event and that the word 'after' refers to following a particular event or item.	(c) I can use the word 'today', understanding that it refers to the current day.	(d) I am beginning to use and understand that the word 'yesterday', refers to the day before today and 'tomorrow' refers to the day after today.	(e) I can understand and correctly use language – before, after, yesterday, today, tomorrow
Measuring time: Sequencing familiar events/the day.	(a) I can talk about significant times of the day, e.g. home time, lunch time, snack time, bedtime, etc.	(b) I understand and can use the words 'before' and 'after' when describing the order of two events.	(c) I can sequence two or three familiar events and describe the sequence using everyday language.		(d) I can sequence four or more familiar events and describe the sequence.
Measures – Capacity					
Vocabulary for filling	(a) I can understand that capacity refers to how much a container can hold when it is full		(b) I can use the terms full and empty to describe volume / capacity		(c) I can use the terms nearly full and nearly empty to describe volume
Comparing capacities	(a) I can compare the volume of two of the same containers holding different amounts	(b) I am beginning to order a set of three identical container from most full to least full		(c) I can order a set of three identical container from least full to most full	
Comparing volume	(a) I understand that comparing the volume of two of the same containers that hold different amounts, is easier if they are near to each other			(b) I understand that comparing the volume of two of the same containers that hold different amounts, is easier if their bases are on the same level	