# **Early Level**

# **Numeracy Progression**

# Framework

March 2020

#### <u>Contents</u>

Number, Money & Measure:	1
Estimation & Rounding	1
Number & Number Processes	2
Fractions, decimal fractions and percentage (including ratio and proportion)	5
Money	6
Time	7
Measure	8
Pattern and Relationships	9
Shape Position and Movement:	10
Properties of 2D shapes and 3D objects	10
Angle, Symmetry and Transformation	11
nformation Handling:	12
Data and Analysis	12

Estimation & Rounding

## Experience & Outcomes: I am developing a sense of size and amount by observing, exploring, using and communicating with others about things in the world around me. MNU 0-01a

	<i>What might you</i> When playing and t	Benchmarks to support professional judgement of achievement ( <u>usually by the</u> <u>end of P1</u> )		
	l am aware:	I understand:	I use with understanding:	I apply:
•	MNU 0-01a Explore the estimation of groups of items, within 5, through play	<ul> <li>MNU 0-01a</li> <li>Estimate, with some accuracy, groups of items within 10</li> </ul>	<ul> <li>MNU 0-01a</li> <li>Estimate, with accuracy, groups of items within and beyond 10</li> </ul>	<ul> <li>MNU 0-01a</li> <li>Identifies the amount of objects in a group and uses this information to estimate the amount</li> </ul>
•	Attempt to describe groups of objects by using the terms, big, bigger, biggest, small, smaller, smallest and the same	<ul> <li>Describe groups of objects by using the terms, bigger, smaller and the same</li> </ul>	<ul> <li>Count objects in a group and use this to estimate the amount of objects in a larger group with increasing accuracy</li> </ul>	of objects in a larger group
•	Attempt to check an estimate by counting	<ul> <li>Check their estimate by counting</li> </ul>	<ul> <li>Check their estimate by counting</li> </ul>	<ul> <li>Checks estimates by counting</li> </ul>
	Explore the terms less than, longer than etc. to describe objects	<ul> <li>Begin to use some appropriate vocabulary in number and measure e.g. less than, longer than</li> </ul>	<ul> <li>Use appropriate vocabulary in number and measure e.g. less than, longer than</li> <li>Estimate length, capacity, weight with some accuracy</li> </ul>	<ul> <li>Demonstrates skills of estimation in the contexts of number, money, time and measure using relevant vocabulary, for example, 'less than', 'longer than'</li> </ul>

Number & Number Processes

Experience & Outcomes: I have explored numbers, understanding that they represent quantities, and I can use them to count, create sequences and describe order. MNU 0-02a

I use practical materials and can 'count on and back' to help me understand addition and subtraction, recording my ideas and solutions in different ways.

#### MNU 0-03a

	What might you see in your interactions and observations? When playing and talking together about numbers children may:					p ac	Benchmarks to support rofessional judgement of hievement ( <u>usually by the</u>
	l am aware:		l understand:		I use with understanding:		l apply:
•	MNU 0-02a Experience and explore the number 0 through their play	•	MNU 0-02a Recognise and identify the number 0 in their play	•	MNU 0-02a Use the number 0 in their play and understand that it means none of a quantity	•	MNU 0-02a Explains that zero means there is none of a particular quantity and is represented by the numeral '0'
•	Attempt to count to 10 verbally through their play	-	Verbally count forward number word sequences 0- 10 in their play and in songs and games	•	Verbally count forward number word sequences 0-20 from any given number with accuracy	•	Recalls the number sequence forward and backward, from zero to at least 30, from any given number
•	Explore counting backwards through their play	•	Verbally count backwards from 10- 0 through play and songs/games	•	Verbally count backwards from 20-0 through play and songs/games		
•	Explore number symbols through their play	•	Recognise and identify some numerals and number words to 10	•	Recognise and identify numerals and number words within and beyond 10	•	Recognises number names and numerals to at least 20
-	Explore numbers using concrete materials in play	-	Find some numerals to 10 within the play environment	•	Find numerals and number words within and beyond 10 in the environment, including on a number line		

		1					
	MNU 0-02a	-	MNU 0-02a Order numbers forwards and backwards to 10 through play	-	MNU 0-02a Order numbers beyond 10 forwards and backwards	•	MNU 0-02a Orders numbers forwards and backwards to at least 20
•	Explore the terms before and after through counting songs and rhymes	-	Begin to use the language before and after within numbers to 10 through play	•	Identify and say the number before/after and missing numbers in a sequence within 10	•	Identifies the number before, the number after and missing numbers in a sequence
-	Explore the concept of counting items in practical tasks, songs and games Explore dot patterns on using dice, numicon, dominoes etc. through their play	•	Count a set of items 0-10 and use 1 to 1 correspondence with some accuracy Say 'how many' dots/items they can see on dot patterns on dice, numicon, dominoes and other sets of pictures in their play	•	Count a set of items larger than 10 using one to one correspondence accurately Identify the number of dots/items on a dice, domino, picture etc. without having to count Know that the last number they say when counting tells them the total of the set	•	Uses one-to-one correspondence to count a given number of objects to at least 20 Identifies 'how many?' in regular and irregular dot patterns, arrays, five frames, ten frames and dice without having to count (subitising) When counting objects, understands that the number name of the last object counted is the name given to the total number of objects in the group
•	Explore using the language 1st, 2nd, 3rd during play	•	Explore using the language of ordinal numbers; 1st, 2nd, 3rd during play	•	Use the language 1st, 2nd, 3rd, before, after, in between accurately to describe a/their position		Uses ordinal numbers in real life contexts, for example, 'I am third in the line', including the language of before, after and in-between
-	MNU 0-03a Explore addition and subtraction through rhymes, stories, games to 5 e.g. the very hungry caterpillar Explore adding or taking away items in a set e.g. add/take away bricks from a tower to make it taller/smaller	-	MNU 0-03a Begin to use the language of addition and subtraction e.g. 1 more, 1 less, through play and using concrete materials and/or pictures Begin to recognise that the same	-	MNU 0-03a Count forwards and backwards in ones with/without concrete materials/pictures using the language 1 more and 1 less Know some double numbers within 10 e.g. 1+1, 2+2, 3+3, 4+4, 5+5	-	MNU 0-03a Counts on and back in ones to demonstrate understanding of addition and subtraction Doubles numbers to a total of at least 20 mentally, for example: 9 + 9 = 18 Groups items recognising that the

number could be recognised in different forms e.g. 3 on a dice and 3 in a row is the same amount but could look different	<ul> <li>Recognise an amount is the same regardless of the form e.g. 5 on a dice is the same as 5 in a row</li> </ul>	appearance of the group has no effect on the overall total (conservation of number)
<ul> <li>MNU 0-03a</li> <li>Begin to use language and concrete materials/pictures to describe the combination of 2 sets of objects to make a total e.g. makes, altogether</li> <li>Begin to notice different patterns of dots e.g. 4 on a dice could be seen as 2 dots and 2 dots</li> </ul>	<ul> <li>MNU 0-03a</li> <li>Use language and concrete materials/pictures to describe the combination of 2 sets of objects to make a total e.g. makes, altogether, total</li> <li>Begin to partition numbers e.g. 5 could be partitioned into 4+1, 3+2, 5+0, 1 + 4, 2+ 3, 0+5</li> </ul>	<ul> <li>MNU 0-03a</li> <li>Partitions single digit numbers into two or more parts and recognises that this does not affect the total, for example, 3+2= 5 and 1+1+1+2=5</li> <li>Demonstrates understanding of all possible partitions of numbers to at least 10, for example, 4 can be partitioned into 4+0, 3+1, 2+2, 1+3 and 0+4</li> </ul>
	<ul> <li>Begin to explore some addition and subtraction facts within 10 using concrete materials/pictures</li> </ul>	<ul> <li>Uses a range of strategies to add and subtract mentally to at least 10</li> </ul>
	<ul> <li>Begin to identify and/or use mathematical symbols when recording addition and subtraction pictorially or written</li> </ul>	<ul> <li>Uses appropriately the mathematical symbols +, -, =</li> <li>Links 'number families' when explaining mental strategies for addition and subtraction</li> </ul>
	<ul> <li>Explore counting in 2's, 5's and 10's through games and songs</li> </ul>	<ul> <li>Counts in jumps (skip counts) in 2s, 5s and 10s and begins to use this as a useful strategy to find how many in a larger group</li> </ul>
		<ul> <li>Solves simple missing number equations, for example: 3 + 2 = 10</li> </ul>

#### Fractions, decimal fractions and percentage (including ratio and proportion)

#### Experience & Outcomes: I can share out a group of items by making smaller groups and can split a whole object into smaller parts. MNU 0-07a

	<i>What might you</i> When playi	Benchmarks to support professional judgement of achievement ( <u>usually by the</u> <u>end of P1</u> )		
	l am aware:	I understand:	I use with understanding:	I apply:
•	MNU 0-07a Begin to develop an understanding of 'sharing', by sharing items Begin to share out items e.g. give their friends some of their birthday cake	<ul> <li>MNU 0-07a</li> <li>Begin to understand:</li> <li>If they half an object there will be two parts</li> <li>That an item can be split into smaller parts. E.g. a birthday cake</li> <li>That splitting an object into two equal parts creates two halves</li> </ul>	<ul> <li>MNU 0-07a</li> <li>I can recognise 2 halves of an object make a whole and can talk about it. E.g. give their friend half of their playdough</li> <li>Start to explore sharing out items equally</li> </ul>	<ul> <li>MNU 0-07a</li> <li>Splits a whole into smaller parts and explains that equal parts are the same size</li> <li>Uses appropriate vocabulary to describe halves</li> <li>Shares out a group of items equally into smaller groups</li> </ul>

Money

### Experience & Outcomes: I am developing my awareness of how money is used and can recognise and use a range of coins. MNU 0-09a

What might you When playi	Benchmarks to support professional judgement of achievement ( <u>usually by the</u> <u>end of P1</u> )		
I am aware:	I understand:	l use with understanding:	l apply:
MNU 0-09a Use coins in role play, loose parts and other areas of play	<ul> <li>MNU 0-09a</li> <li>Develop an awareness of how money is used in real life</li> <li>Recognise the value of some coins</li> <li>Develop an understanding of why money is used through role play</li> </ul>	<ul> <li>MNU 0-09a</li> <li>Recognise coins 1p, 2p, 5p, 10p, 20p, 50p, £1 and £2</li> <li>Use coins in role play, giving change</li> <li>Understand that coins have different values</li> <li>Develop an awareness that coins can be exchanged for goods and services</li> <li>Have used coins appropriately in shops</li> </ul>	<ul> <li>MNU 0-09a</li> <li>Identifies all coins to £2</li> <li>Applies addition and subtraction skills and uses 1p, 2p, 5p and 10p coins to pay the exact value for items to 10p</li> </ul>

Time

# **Experience & Outcomes:** I am aware of how routines and events in my world link with times and seasons, and have explored ways to record and display these using clocks, calendars and other methods.

MNU 0-10a

	<i>What might you</i> When playi	Benchmarks to support professional judgement of achievement ( <u>usually by the</u> <u>end of P1</u> )		
	I am aware:	I understand:	I use with	l apply:
•	MNU 0-10a Begin to recognise the daily routines in ELC Tell you things they do during the day and night Begin to join in songs and rhymes about the days of the week and months of the year Know that clocks and watches tell the time but have little concept of time	<ul> <li>MNU 0-10a</li> <li>Know their routine in ELC and tell you what they will do next</li> <li>Tell you that night follows day and day follows night</li> <li>Begin to recognise which day/month it is</li> <li>Name seasons and tell you a feature of the seasons</li> <li>Begin to understand that when the time, for example, is 3 o'clock, their mum will pick them up from ELC</li> </ul>	<ul> <li>MNU 0-10a</li> <li>Tell you about their day at ELC and home in sequence</li> <li>Recite the days of the week and some months of the year</li> <li>Know the seasons follow each other in a sequence</li> <li>Understand that clocks tell the time</li> <li>Understand that calendars show the days and months</li> <li>Tell the o'clock times on an analogue clock</li> </ul>	<ul> <li>MNU 0-10a</li> <li>Links daily routines and personal events to time sequences</li> <li>Names the days of the week in sequence, knows the months of the year and talks about features of the four seasons in relevant contexts</li> <li>Recognises, talks about and where appropriate, engages with everyday devices used to measure or display time, including clocks, calendars, sand timers and visual timetables</li> <li>Reads analogue and digital o'clock times (12 hour only) and represents this on a digital display or clock face</li> <li>Uses appropriate language when discussing time, including before, after, o'clock, hour hand and minute hand</li> </ul>

Measure

## Experience & Outcomes: I have experimented with everyday items as units of measure to investigate and compare sizes and amounts in my environment, sharing my findings with others. MNU 0-11a

<i>What might you</i> When playin	Benchmarks to support professional judgement of achievement ( <u>usually by the</u> <u>end of P1</u> )		
l am aware:	I understand:	I use with understanding:	I apply:
MNU 0-10a Explore measure through filling, pouring, lifting etc. Investigate and explore weight using scales Order objects by size, although not be able to explain order Explore measurement in baking Be aware of and understand terms like big/small, long short, heavy/light Be able to find objects that are 'longer', ' shorter', 'heavier', 'lighter', 'holds more or less'	<ul> <li>MNU 0-10a</li> <li>Begin to use language such as tall, short, fat, thin, heavy, light, wide, big or small</li> <li>Put objects in order of length</li> <li>Put objects in order of weight</li> <li>Put objects in order of capacity</li> <li>Compare two objects and identify which is heavier/lighter, bigger/smaller, longer/shorter</li> </ul>	<ul> <li>MNU 0-10a</li> <li>Understand and use language of length e.g. big, bigger, small, and smaller</li> <li>Explore length using non-standard units e.g. how many hand long/how many cubes high</li> <li>Understand and use language of weight: heavier, heaviest, lighter, lightest</li> <li>Explore weight using non-standard units e.g. how many stones/feathers will balance</li> <li>Understand and use language of capacity e.g. half, full, hold more/less</li> <li>Explore capacity using non-standard units e.g. how many cups in a jug of water</li> </ul>	<ul> <li>MNU 0-10a</li> <li>Shares relevant experiences in which measurements of lengths, heights, mass and capacities are used, for example, in baking</li> <li>Describes common objects using appropriate measurement language, including tall, heavy and empty</li> <li>Compares and describes lengths, heights, mass and capacities using everyday language, including longer, shorter, taller, heavier, lighter, more and less</li> <li>Estimates, then measures, the length, height, mass and capacity of familiar objects using a range of appropriate non- standard units</li> </ul>

Pattern and Relationships

#### Experience & Outcomes: I have spotted and explored patterns in my own and the wider environment and can copy and continue these and create my own patterns. MTH 0-13a

	What might you	Benchmarks to support		
	W/ben nlavi	professional judgement of achievement (usually by the		
	when play	end of P1)		
	l am aware:	I understand:	l use with	l apply:
			understanding:	
-	MTH 0-13a Be aware of simple patterns around them e.g. spots, stripes, zigzags Explore simple patterns such as red, yellow, red, yellow	<ul> <li>MTH 0-13a</li> <li>Begin to copy and continue simple non-numeric patterns e.g. clapping, colour, shape, rhythmic clapping</li> <li>Use simple language such as repeat, again, pattern etc. to describe patterns</li> <li>Explore, identify and talk about patterns in the environment. E.g. a stripy jumper</li> </ul>	<ul> <li>MTH 0-13a</li> <li>Describe a simple repeating pattern</li> <li>Use language associated with patterns for example next, before, after</li> <li>Copy, continue, create and recognise simple patterns and describe them</li> <li>Copy a repeated pattern using numbers</li> <li>Continue a repeated pattern using numbers</li> <li>Copy and continue repeated patterns using shape and numbers</li> <li>Description to event to even to</li></ul>	<ul> <li>MTH 0-13a</li> <li>Copies, continues and creates simple patterns involving objects, shapes and numbers</li> <li>Explores, recognises and continues simple number patterns</li> <li>Finds missing numbers on a number line within the range 0-20</li> </ul>
			patterns	

#### Shape Position and Movement:

Properties of 2D shapes and 3D objects

## Experience & Outcomes: I enjoy investigating objects and shapes and can sort, describe and be creative with them. MTH 0-16a

<i>What might you</i> When playi	Benchmarks to support professional judgement of achievement ( <u>usually by the</u> <u>end of P1</u> )		
l am aware:	I understand:	l use with understanding:	I apply:
MTH 0-16a Explore 2D Shapes in play Explore using 2D shapes to make picture and patterns Use familiar objects to help them begin to name shapes e.g. wheel for circle Use 3D shapes to build	<ul> <li>MTH 0-16a</li> <li>Begin to recognise and name 2D shapes – square, circle, rectangle and triangle</li> <li>Begin to identify 2D shapes within the local environment</li> <li>Use words such as; straight, round, curved etc. to describe and sort 2D shapes</li> <li>Begin to recognise and name 2D and 3D shapes and recognise the differences between them e.g. solid, flat, curved</li> </ul>	<ul> <li>MTH 0-16a</li> <li>Recognise 2D shapes: square, circle, rectangle, triangle</li> <li>Identify 2D shapes within the local environment</li> <li>Use the words such as straight, round etc. to describe and sort 2D shapes</li> <li>Recognise and name 3D objects in the world around them</li> <li>Begin to identify and match 3D objects within the local environment</li> <li>Use words such as cube, cuboid, cylinder, sphere and cone</li> <li>Be able to sort 3D shapes into categories: <ul> <li>shapes that do/do not roll</li> <li>shapes that do/do not</li> </ul> </li> </ul>	<ul> <li>MTH 0-16a</li> <li>Recognises, describes and sorts common 2D shapes and 3D objects according to various criteria, for example, straight, round, flat and curved</li> </ul>

#### Shape Position and Movement:

Angle, Symmetry and Transformation

#### Experience & Outcomes: In movement, games, and using technology I can use simple directions and describe positions. MTH 0-17a I have had fun creating a range of symmetrical pictures and patterns using a range of media. MTH 0-19a

	<i>What might you</i> When playi	Benchmarks to support professional judgement of achievement ( <u>usually by the</u> <u>end of P1</u> )		
	l am aware:	I understand:	I use with understanding:	I apply:
-	MTH 0-17a Turn a full turn Understand forwards and backwards Begin to show the position of an object when asked to put it in front/behind/under/on top of	<ul> <li>MTH 0-17a</li> <li>Follow a sequence of simple direction e.g. walk forwards four steps and turn around</li> <li>Show the position of an object when asked to put it on top/above and under/below</li> </ul>	<ul> <li>MTH 0-17a</li> <li>Begin to identify left and right</li> <li>Begin to use their knowledge of sequence and direction to program programmable toys</li> </ul>	MTH 0-17a Understands and correctly uses the language of position and direction, including in front, behind, above, below, left, right, forwards and backwards, to solve simple problems in movement games
•	MTH 0-19a Explore symmetry in their play Create a symmetrical painting by folding Experiment and use mirrors to develop their knowledge of symmetry	<ul> <li>MTH 0-19a</li> <li>Begin to recognise symmetrical pictures and patterns around them in the environment</li> <li>Find and match symmetrical pictures and patterns</li> </ul>	<ul> <li>MTH 0-19a</li> <li>Identify and describe symmetry pictures and patterns with one line of symmetry</li> <li>Create a symmetrical pattern in a range of ways</li> <li>Begin to use the word symmetrical when making or identifying symmetry</li> </ul>	MTH 0-19a Identifies, describes and creates symmetrical pictures with one line of symmetry

#### **Information Handling:**

Data and Analysis

Experience & Outcomes: I can collect objects and ask questions to gather information, organising and displaying my findings in different ways. MNU 0-20a I can match and sort using my own and others' criteria. MNU 0-20b I can information around me to help me plan and make choices and decisions in my daily life. MNU 0-20c

	<i>What might you</i> When playi	Benchmarks to support professional judgement of achievement ( <u>usually by the</u> <u>end of P1</u> )					
I am aware:		I understand:		I use with understanding:		I apply:	
•	MNU 0-20a Attempts to ask simple questions during play to find out basic information e.g. What is your favourite food?	•	MNU 0-20a Take part in collecting data e.g. Who is present today? Who is having a hot lunch?	•	MNU 0-20a Use tally marks to collect information E.g. How many walked to school, how many didn't? Explore different ways to display the information I have gathered, with support from an adult	•	MNU 0-20a Ask simple questions to collect data for a specific purpose. Applies counting skills to ask and make relevant choices and decisions based on the data Contributes to concrete and pictorial displays where one object or drawing represents one data value, using digital technologies as appropriate
-	MNU 0-20b Begin to sort into two different groups	-	MNU 0-20b Sort objects according to a variety of criteria e.g. big stones and little stones	-	MNU 0-20b Sort objects into more than two groups e.g. red bears, yellow bears and green bears or triangles, squares, circles and rectangles	-	MNU 0-20b Use knowledge of colour, shape, size and other properties to match and sort items in a variety of different ways
	MNU 0-20c Begin to recognise environmental signs e.g. toilet	•	MNU 0-20c Count a group of objects to 10 to answer a question		MNU 0-20c Look at a pictogram or bar graph and answer questions		MNU 0-20c Interprets simple graphs, charts and signs and

•	Take part in creating simple charts/pictograms	•	Recognise signs around them Use charts I have helped to create		such as, 'What pet do we have most of?' 'How many dogs do we have?'	demonstrates how they support planning, choices and decision making
				-	Can follow a visual	
					timetable	