

Routes to numeracy

Routes to numeracy		RfL routemap	A steps	B steps	C steps
Strands	Elements	Learners have achieved the following on the Routes for Learning (RfL) routemap.	Learners are able to:	Learners are able to:	Learners are able to:
Developing numerical reasoning	Identify processes and connections	<ul style="list-style-type: none"> Intentional exploration of the environment [RfL 27] Shared attention [RfL 40] Modifies action when repeating action does not work [RfL 38] Object permanence [RfL 34] 	<ul style="list-style-type: none"> focus attention on objects, manipulating and exploring them using a range of methods show an interest in number activities and counting with an adult, copy some actions, and/or vocalise at appropriate moments use a favourite object in a new or different way after watching an adult do so locate and remove a favourite object from among a collection of different objects 	<ul style="list-style-type: none"> pay attention, respond to and use number words in structured activities led by an adult assist in counting and match identical objects when the task is structured by an adult treat familiar items as similar despite differences in their appearance or their medium of representation (as objects, pictures, etc.) watch an adult order a number of items in a particular way (e.g. cars in a row) then attempt to copy search for all missing items when 2 or 3 objects are hidden 	<ul style="list-style-type: none"> use counting and comparing sometimes outside focused teaching activities complete a task requiring several steps select and manipulate objects in order to help solve a problem make an attempt at a simple estimate, e.g. <i>how many objects will fit in a container</i>
	Represent and communicate			<ul style="list-style-type: none"> respond appropriately to some words describing: <ul style="list-style-type: none"> quantity, e.g. <i>more</i> size, e.g. <i>big</i> position, e.g. <i>in</i> when applied to real objects sign or indicate to show responses or choices 	<ul style="list-style-type: none"> respond appropriately to words describing: <ul style="list-style-type: none"> quantity, e.g. <i>some, more, a lot</i> size, e.g. <i>big, little</i> position, e.g. <i>in, on, under</i> demonstrate an awareness of number in activities record by making marks or drawing pictures
	Review				<ul style="list-style-type: none"> recognise if the pattern is wrong, where items are in pairs, and put it right by completing the set or removing the odd item interpret written numerals correctly (up to 5) in a practical task, e.g. <i>reads '3' and gives out corresponding number of drinks to others</i>
Using number skills	Use number facts and relationships	<ul style="list-style-type: none"> 'Looks' backwards/forwards between two objects (knows two objects are present) [RfL 29] Shared attention [RfL 40] 	<ul style="list-style-type: none"> recognise which quantity is greater when numbers are small point to an object or vocalise at an appropriate moment to indicate a number when an adult is counting anticipate climax in familiar number songs or rhymes (showing emergent recognition of number words) 	<ul style="list-style-type: none"> count 2 or 3 objects with support recite numbers 1 to 5 associate numerals (1 and 2) with number activities recognise that '2' is more than '1' 	<ul style="list-style-type: none"> count reliably up to 5 objects recite numbers from 1 to 10 name and order numerals to at least 5
	Fractions, decimals, percentages and ratio				
	Calculate using mental and written methods				<ul style="list-style-type: none"> 'add more' to, or 'take away' from, a set when the task is structured by an adult, and can re-count to find new total
	Estimate and check				
	Manage money	<ul style="list-style-type: none"> Communicates choice to attentive adult [RfL 37] 	<ul style="list-style-type: none"> give a coin in exchange for an item after observing others do so in role play shop (may have no notion of coin's value but will engage in the social interaction) 	<ul style="list-style-type: none"> point to choice of item from two or three in role play shop then give coin(s) in exchange find coins from a limited collection which are the same as ones shown by an adult 	<ul style="list-style-type: none"> give money in exchange for an item in a real shop when coins and choice are prepared in advance sort coins according to one attribute, e.g. <i>colour, size or shape</i>
Using measuring skills	Length, weight/mass, capacity	<ul style="list-style-type: none"> Selects from two or more items [RfL 36] 	<ul style="list-style-type: none"> explore the distinctions between objects by putting/holding them together, joining/stacking/breaking them apart/putting them into containers 	<ul style="list-style-type: none"> find the 'big' object from 2 otherwise similar items: <ul style="list-style-type: none"> where the difference in size is large and the activity is structured by an adult find one the same from a small collection of objects when the activity is structured by an adult 	<ul style="list-style-type: none"> independently compare the size of objects by lining them up or holding them together: <ul style="list-style-type: none"> find the 'big' one from two objects and order several objects according to their size
	Time	<ul style="list-style-type: none"> Does two different actions in sequence to get reward [RfL 35] 	<ul style="list-style-type: none"> show growing awareness of rhythmical patterns and begin to coordinate some sounds with gestures or pointing 	<ul style="list-style-type: none"> adjust speed of clapping to match a model (faster or slower) anticipate a routine event when it is represented by a picture/symbol or object of reference 	<ul style="list-style-type: none"> use simple pictures to understand the sequence of events and activities in their day accept a wait for a more favoured activity by referring to a pictorial representation of their day (use the concepts of 'finished' and 'next')
	Temperature				<ul style="list-style-type: none"> appreciate the difference of hot and cold
	Area and volume Angle and position				
Using data skills	Collect and record data Present and analyse data Interpret results	<ul style="list-style-type: none"> Selects from two or more items [RfL 36] Purposeful action on everyday environment [RfL 24] 	<ul style="list-style-type: none"> 'gather' and hold onto several objects sharing a particular preferred property, while discarding others touch, point to or give an object to indicate an 'answer' in a number activity. 	<ul style="list-style-type: none"> separate from a collection objects which share a common attribute (of their own choosing) match an object to an identical object and a picture to an identical picture match a very familiar object to a clear photo of an identical object manipulate objects or pictures within simple number games and activities – the final position of the items records the solution. 	<ul style="list-style-type: none"> separate objects which share a specified attribute, e.g. <i>big/little, round</i> consistently match pictures to objects (not necessarily identical) match related pairs of objects or pictures, e.g. <i>knife and fork, cup and saucer</i> use sorting and ordering to organise objects using them in context but not always correctly record numbers by matching numerals to sets of objects (up to 5).