

Routes for numeracy

Routes for Learning (RfL) routemap		Next steps A	Next steps B	Next steps C	
Strands	Elements	Learners have achieved the following on the RfL routemap.	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 items 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 select and manipulate objects in order to help solve a problem complete a task requiring several steps make an attempt at a simple estimate (e.g. how many objects will fit in a container)
	Represent and communicate				
	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 (1–3) in a practical task (e.g. reads '3' and gives out corresponding number of drinks to others)
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 item 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 as a 'chant' (not fully perceiving the gaps between them or matching count to items) associate numerals (1 and 2) with number activities recognise that '2' is more than '1' 	<ul style="list-style-type: none"> use the concepts of one-to-one correspondence and cardinality with 3 objects (after counting 3 objects, states there are '3' items in the set) recite numbers from 1 to 10; numbers are distinct and match count of items (but always have to start the count at 1) name and order numerals 1–3, and may be able to copy or trace over them
	Fractions, decimals, percentages and ratios				
	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, can re-count to find new total
	Estimate and check				
	Money	<ul style="list-style-type: none"> Communicates choice to an 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 one 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. colour, size or shape)
Using measuring skills	Length, weight (mass) and 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 a 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 a simple picture timeline to understand the sequence of events and activities accept a wait for a more favoured activity by referring to a timeline (use the concepts of 'finished' and 'next')
	Temperature				
	Area and volume				
	Angle				
Using data skills	Collect and record data	<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 items 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 item respond appropriately to some words describing position (e.g. in), size (e.g. big) and quantity (e.g. more), when applied to real objects 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. big/little, round) consistently match pictures to objects (not necessarily identical) match related pairs of objects or pictures (e.g. knife and fork, cup and saucer) use sorting and ordering to organise items respond appropriately to words describing position (e.g. in, on, under), size (e.g. big/little) and quantity (e.g. some, more, a lot), using them in context but not always correctly record numbers by matching numerals to set of items (up to 3).
	Present and analyse data				
	Interpret results				