



EYFS Maths
Workshop
22.2.18





What is
expected
and when?

Development Matters

Mathematics: Numbers			
	A Unique Child: observing what a child is learning	Positive Relationships: what adults could do	Enabling Environments: what adults could provide
 30-50 months	<ul style="list-style-type: none"> • Uses some number names and number language spontaneously. • Uses some number names accurately in play. • Recites numbers in order to 10. • Knows that numbers identify how many objects are in a set. • Beginning to represent numbers using fingers, marks on paper or pictures. • Sometimes matches numeral and quantity correctly. • Shows curiosity about numbers by offering comments or asking questions. • Compares two groups of objects, saying when they have the same number. • Shows an interest in number problems. • Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same. • Shows an interest in numerals in the environment. • Shows an interest in representing numbers. • Realises not only objects, but anything can be counted, including steps, claps or jumps. 	<ul style="list-style-type: none"> • Use number language, e.g. 'one', 'two', 'three', 'lots', 'fewer', 'hundreds', 'how many?' and 'count' in a variety of situations. • Support children's developing understanding of abstraction by counting things that are not objects, such as hops, jumps, clicks or claps. • Model counting of objects in a random layout, showing the result is always the same as long as each object is only counted once. • Model and encourage use of mathematical language e.g. asking questions such as 'How many saucepans will fit on the shelf?' • Help children to understand that one thing can be shared by number of pieces, e.g. a pizza. • As you read number stories or rhymes, ask e.g. 'When one more frog jumps in, how many will there be in the pool altogether?' • Use pictures and objects to illustrate counting songs, rhymes and number stories. • Encourage children to use mark-making to support their thinking about numbers and simple problems. • Talk with children about the strategies they are using, e.g. to work out a solution to a simple problem by using fingers or counting aloud. 	<ul style="list-style-type: none"> • Give children a reason to count, e.g. by asking them to select enough wrist bands for three friends to play with the puppets. • Enable children to note the 'missing set', e.g. 'There are none left' when sharing things out. • Provide number labels for children to use, e.g. by putting a number label on each bike and a corresponding number on each parking space. • Include counting money and change in role-play games. • Create opportunities for children to separate objects into unequal groups as well as equal groups. • Provide story props that children can use in their play, e.g. varieties of fruit and several baskets like Handa's in the story <i>Handa's Surprise</i> by Eileen Browne.
 40-60+ months	<ul style="list-style-type: none"> • Recognise some numerals of personal significance. • Recognises numerals 1 to 5. • Counts up to three or four objects by saying one number name for each item. • Counts actions or objects which cannot be moved. • Counts objects to 10, and beginning to count beyond 10. • Counts out up to six objects from a larger group. 	<ul style="list-style-type: none"> • Encourage estimation, e.g. estimate how many sandwiches to make for the picnic. • Encourage use of mathematical language, e.g. number names to ten: 'Have you got enough to give me three?' • Ensure that children are involved in making displays, e.g. making their own pictograms of lunch choices. Develop this as a 3D representation using bricks and discuss the most popular choices. • Add numerals to all areas of learning and development, e.g. to a display of a favourite story, such as 'The Three Billy Goats Gruff'. 	<ul style="list-style-type: none"> • Provide collections of interesting things for children to sort, order, count and label in their play. • Display numerals in purposeful contexts, e.g. a sign showing how many children can play on a number track. • Use tactile numeral cards made from sandpaper, velvet or string. • Create opportunities for children to experiment with a number of objects, the written numeral and the written number word. Develop this through matching activities with a range of numbers, numerals and a selection of objects.

Numbers

- Recite number names
- Count using one number for one thing (object, action)
- Recognise numerals
- Find one more or one less
- Begin addition
- Begin subtraction
- Begin doubling
- Begin halving



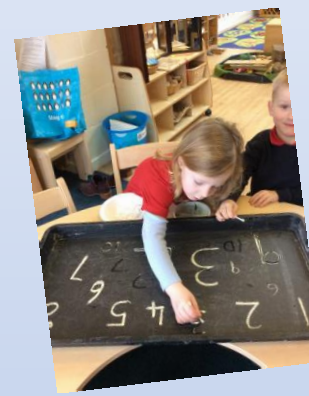
Ways to support counting



Ways to support numeral recognition



Ways to support addition



The different stages	Examples
Stage 1 Counting sets of objects	
Stage 2 Combining two sets of objects into one group and counting practically.	For $5 + 3$ the children may get 5 objects, and then 3 more and count how many altogether.
Stage 3 Drawing dots - informal jottings. Then counting how many altogether.	$3 + 5 = 8$

Stage 4 Counting on, on a number line with numbers on it.	$5 + 3 = 8$
Stage 5 Steps in addition can be recorded on a number line. The steps often bridge through a multiple of 10. <ol style="list-style-type: none"> 1) Partition the smaller numbers into tens and ones. 2) Add on the tens. 3) Add on the ones. 	$7 + 8 = 15$ $37 + 28 = 65$

Ways to support subtraction



The different stages	Examples
Stage 1 Practically get a group of objects together and then take some away.	
Stage 2 Jottings - draw a set of marks, and then cross some out.	$12 - 5 = 7$
Stage 3 Count back on a number line with numbers already on it.	$12 - 3 = 9$

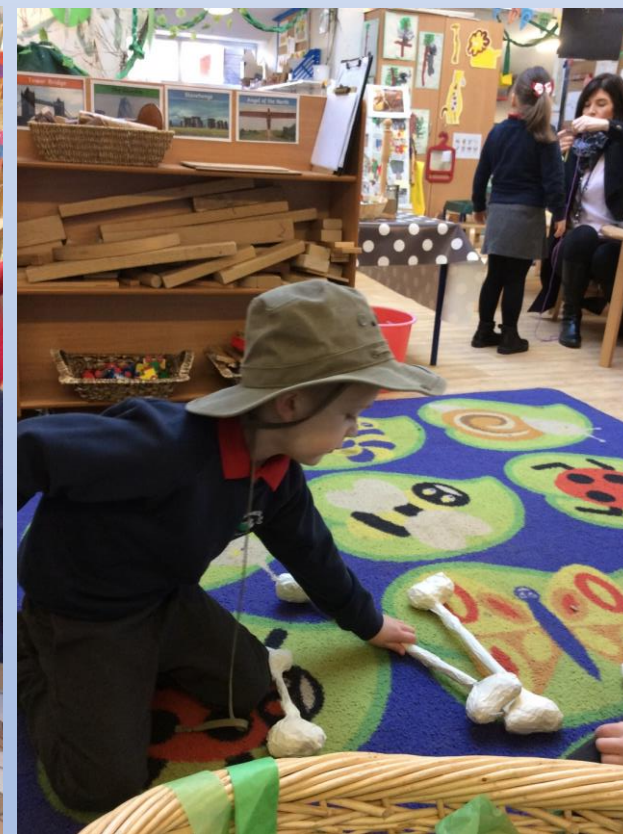
Stage 4
 Using a number line.
 Work by counting back.

Also work out the difference by counting on.

$73 - 39 = 34$

Work out the difference between 47 and 86 = 39

Shape, Space and Measure



Shape, Space and Measure

- Recite number names
- Count using one number for one thing (object, action)
- Recognise numerals
- Find one more or one less
- Begin addition
- Begin subtraction
- Begin doubling
- Begin halving