



Wooler First School

Maths Progress Model for Knowledge and Skills

Links to KS1 curriculum		Expectations for Reception (4-5 yrs)			Expectations for Nursery (3-4 yrs)		
Number - Counting	Count to and across 100, forwards and backwards, beginning with 0 or 1 or from any given number	Rote count to 20 and beyond	Rote count beyond 10	Rote count to 10	Rote count beyond 5	Rote count beyond 3	Says number names in play
		Count backwards from 10			Count backwards from 5	Count backwards from 3	Says number names
		Count objects to 10+ accurately		Count objects to 5+ <i>Understands that the last number tells you how many there are</i>		Counts objects to 3 accurately	Uses number names while pointing at objects (no 1:1 correspondence)
		Count actions/sounds to 10+		Count actions/sounds to 5+	Count actions/sounds to 3+		
		Make a sensible guess of quantities within 10	Subitise (to 5)		Subitise (to 3)		Subitise (to 1)
Number - Recognition	Begin to recognise place value in numbers beyond 20	Link numerals and amounts to 10+		Link numerals and amounts to 5+	Links numerals and amounts to 5	Link numerals and amounts to 3	Recognises some numbers
	Identify and represent numbers using objects and pictorial representations including the number line	Orders numbers to 10		Orders numbers to 5		Orders numbers to 3	

Number Sense	Identify and represent numbers using objects and pictorial representations including the number line	Partitions sets of objects using a part-part whole model, exploring composition to 10	Partitions sets of objects using a part-part whole model, exploring composition to 5	Partitions sets of objects using a part-part whole model, exploring composition to 3		
		Knows that when a ten frame is full there are 10 objects and when one row is complete there are 5			Knows that when a five frame is full there are 5 objects and when empty there are 0	
	Represent and use number bonds	Knows number facts that make 10	Knows the number facts that make 5			
Number - Graphics	Read and write numbers from 1 to 20 in numerals (and words)	Can write numbers 1-10		Is able to write numbers 1-5		Experiments with their own symbols and marks, as well as numerals. Is able to write numbers of personal significance.
Calculating	Use the language of: equal to, more than, less than (fewer), most, least	Children understand the difference between quantity and size	Compare numbers using 'more than', 'less than' 'fewer' 'equal to'		Compares quantities using 'more', 'fewer/less' and 'the same'	Compares quantities using 'more' 'lots' and 'same'
	Given a number, identify one more or one less	Children can find 1 more than and 1 less than	Children can find 1 less than	Children can find 1 more than		
	Add and subtract one-digit and two-digit numbers to 20, including zero	Understands that addition is the combining of sets of objects and Understands that subtraction is removing objects			Combines amounts and knows that they have 'more' Takes some away and knows that they have 'less'	
	Solve one-step problems that involve addition and subtraction	Solves real world mathematical problems in context with numbers to 10		Solves real world mathematical problems in context with numbers to 5		Solves real world mathematical problems in context with numbers to 3

Fractions	Recognise, find and name a half as one of two equal parts of an object, shape or quantity Compare, describe and solve practical problems for double/half	Understands that halving is sharing into two equal parts	Understands that sharing is splitting an amount into equal parts	Children 'share' items by giving items to their friends or teachers		
		Understands that doubling is adding the same number to itself				
Shape	Pupils should be taught to recognise and name common 2-D shapes, including rectangles (including squares), circles and triangles	Explores how many corners and sides other 2D shapes have.	Explores how many corners and sides basic 2D shapes have. Is beginning to explain if the sides are 'straight' or 'curved'	Knows shape names for circle, triangle, square and rectangle	Combines shapes to make pictures Beginning to know names of shapes e.g. circle triangle	
	Pupils should be taught to recognise and name common 3-D shapes, including cuboids (including cubes), pyramids and spheres	Is beginning to recognise and name 3D shapes during play and can select and rotate shapes for purpose.	Knows the of some 3D shapes e.g cube, cylinder, cone	Explores which shapes will roll and which will slide and is beginning to explain why using the vocabulary 'curved' and 'flat'	Experiences play and building activities with a variety of 3D shapes	
space	Describe position, direction and movement, including whole, half, quarter and three-quarter turns.	Continue, copy and recreate repeated patterns (ABBA)	Continue, copy or notices error in repeated patterns (AB)	Creates repeated patterns with shape or colour (AB)	Can sort items by their colour or pattern	Talks about pattern in the environment (spotty, stripy...)
		Uses the vocabulary 'in-between', 'over', 'above', 'beside' Can use ordinal numbers to describe position in a line		Can follow an instruction using positional language	Uses the vocabulary 'in', 'on', 'under', 'behind', 'next to'	Uses the ordinal vocabulary of 'first' and 'last'
		Describes a familiar route using directional language - 'forwards', 'backwards', 'right' and 'left'		Describes a familiar route with basic directional language – 'around', 'this way', 'that way' and understands position through words		Discusses locations

measurement

Compare, describe and solve practical problems for lengths and heights	Can order and compare items by length/height using non-standard measures Uses 'biggest', 'smallest', 'shortest' and 'tallest'			Make simple comparisons using 'bigger' and 'smaller', 'shorter' and 'taller'	Uses 'big' and 'small', 'short' and 'tall' to compare size
Compare, describe and solve practical problems for mass/weight	Can order and compare items by weight using non-standard measures Uses 'heaviest', 'lightest'			Make simple comparisons using 'heavier' and 'lighter'	Uses 'heavy' and 'light'
Compare, describe and solve practical problems for capacity and volume	Can order and compare items by capacity using non-standard measures Uses 'full', 'empty', 'half empty'			Make simple comparisons using 'more' and 'less'	Uses 'full' and 'empty' to compare capacity
Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	Children can use language before, after, yesterday, today, tomorrow	Children can identify if it takes a shorter or longer time to do something	Children can talk about significant times of the day, home time, lunch time etc... and then sequence them	Begins to describe sequences of events using next, after, later Begins to understand the vocabulary 'first', 'last' and 'soon'	
Recognise and use language relating to dates, including days of the week, weeks, months and years	Can tell you which day comes before/after a given day	Says the days of the week in order		Knows some of the days of the week	
Recognise and know the value of different denominations of coins and notes	Can pay for items using 1p coins	Recognises that there are different coins	Talks about the different ways we can pay for things	Understands that we need to pay for items in a shop and can talk about what they would like to buy	