Rothersthorpe Primary School   <u>**Number: Algebra Progression Document**</u>

Reception 40-60+ mths	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			EQUATIONS			
<u>Stages of understanding repeated patterns cont.</u> - make own AB pattern - spot errors in an AB pattern - can identify the unit of repeat e.g. this is a red-blue pattern - continue, copy, make own ABC pattern - continue a pattern that has ended mid-unit of repeat - can do the above with a range of patterns e.g. ABB, ABBC, AABB -can begin to symbolise unit structure of a pattern the letter	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and **missing number problems** such as 7 = □ - 9 (Addition and Subtraction NC Objective).	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and **missing number** problems. (Addition and Subtraction NC Objective).	Solve problems, including **missing number** problems, using number facts, place value, and more complex addition and subtraction. (Addition and Subtraction NC Objective). Solve problems, including **missing number** problems, involving multiplication and division, including integer scaling. (Multiplication & Division NC Objective).		Use the properties of rectangles to deduce related facts and find **missing lengths and angles.** (Geometry: Properties of Shapes NC Objective).	Express missing number problems algebraically.
		Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. (Addition and Subtraction NC Objective).				Find pairs of numbers that satisfy number sentences involving two unknowns.

R for the red Dinosaur. -Can begin to explain the rule of a pattern and then create another pattern with the same rule.						
Begins to identify own mathematical problems based on own interests and fascinations. Orders and sequences familiar events.	Represent and use number bonds and related subtraction facts within 20. (Addition and Subtraction NC Objective).					Enumerate all possibilities of combinations of two variables.
	FORMULAE					
ELG: Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns.				Perimeter can be expressed algebraically as 2(a + b) where a and b are the dimensions in the same unit. (Link to Measurement NC Objective).		Use simple formulae. Recognise when it is possible to use **formulae** for area and volume of shapes. (Measurement NC Objective).
	SEQUENCES					
	Sequence events in chronological order using language such as: before and after, next, first, today,	Compare and sequence intervals of time. (Measurement NC Objective).				Generate and describe linear number sequences.

	yesterday, tomorrow, morning, afternoon and evening. (Measurement NC Objective).	Order and arrange combinations of mathematical objects in patterns. (Geometry: position and direction NC Objective).			