Primary Mathematics Curriculum

Expressions and equations

	Stage 1 (Junior & Senior Infants)	Stage 2 (1st & 2nd Class)	Stage 3 (3rd & 4th Class)	Stage 4 (5th & 6th Class)
	Through appropriately playful and engaging learning experiences, children should be able to			
Learning Outcomes		interpret the meaning of symbols or pictures in number sentences.	represent and express problems with known and unknown values in different ways to include the use of appropriate letter-symbols or words.	articulate, represent and solve mathematical situations through the use of expressions and equations that include letter-symbols.
Mathematical concepts		Real-life situations can be expressed using manipulatives, diagrams, and word and number sentences.	When expressing real-life situations, symbols can be used to represent an unknown, a quantity that varies (*variable*), or every number (*the general case*).	A real-life situation can be represented by an expression or a series of expressions.
		An equals sign (=) conveys equality, whereas ≠, < and > convey inequality.	Real-life situations and functions can be represented in a variety of forms, including numbers, words, symbols and tables.	An expression may contain more than one unknown or variable. Each unknown or variable must be represented by a dedicated symbol.
		In number sentences (equations), symbols can stand for a request to do something (+, -, x, ÷), they can express a relationship (=, <, >, ≠), or they can be something that is unknown or varies.	A function is a special relationship where each input has exactly one output. There are always three main parts; the input, the functional relationship and the output.	When generating an expression to represent a real-life situation, it can be possible and useful to 'simplify' a long or complex expression.
		In a number sentence, number facts can be applied to help find an unknown value.	Representing the structure of a function using words, symbols, graphs, tables or diagrams is useful to identify outputs for given inputs and vice versa.	'Solving' an equation consists of determining which value(s) for a given symbol make(s) the equation true.