# Maths Objectives – Algebra

| Key Stage | Objective | Child Speak Target |
|---|---|---|
| KS 1 Y1 | | |
| KS 1 Y2 | | |
| KS 2 Y3 | | |
| KS 2 Y4 | | |
| KS 2 Y5 | | |
| KS 2 Y6 | Use simple formulae. | *I know how to use simple formulae such as n - 10 = 2.* |
| KS 2 Y6 | Generate and describe linear number sequences. | *I can create a sequence of numbers that follow a rule.* |
| KS 2 Y6 | Express missing number problems algebraically. | *I can use a letter (such as n or x) to show a missing number - such as 10 - x = 5.* |
| KS 2 Y6 | Find pairs of numbers that satisfy an equation with two unknowns. | *I can find pairs of numbers that satisfy an equation with two unknowns.* |
| KS 2 Y6 | Enumerate possibilities of combinations of two variables. | *I can list possible answers to missing numbers such as listing the possible answers of a and b in a + 6 = b - 10.* |
| KS3 | Ab in place of a × b. | |
| | 3y in place of y + y + y and 3 × y. | |
| | A2 in place of a × a, a3 in place of a × a × a; a2b in place of a × a × b. | |
| | A/b in place of a divided by b. | |
| | Coefficients written as fractions rather than as decimals. | |
| | Brackets. | |
| | Substitute numerical values into formulae and expressions, including scientific formulae. | |
| | Understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors. | |
| | Collecting like terms. | |
| | Multiplying a single term over a bracket. | |
| | Taking out common factors. | |
| | Expanding products of two or more binomials. | |
| | Understand and use standard mathematical formulae; rearrange formulae to change the subject. | |
| | Model situations or procedures by translating them into algebraic expressions or formulae and by using graphs. | |
| | Use algebraic methods to solve linear equations in one variable (including all forms that require rearrangement). | |
| | Work with coordinates in all four quadrants. | |
| | Recognise, sketch and produce graphs of linear and quadratic functions of one variable with appropriate scaling, using equations in x and y and the Cartesian plane. | |
| | Interpret mathematical relationships both algebraically and graphically. | |
| | Reduce a given linear equation in two variables to the standard form y = mx + c; calculate and interpret gradients and intercepts of graphs of such linear equations numerically, graphically and algebraically. | |
| | Use linear and quadratic graphs to estimate values of y for given values of x and vice versa and to find approximate solutions of simultaneous linear equations. | |
| | Find approximate solutions to contextual problems from given graphs of a variety of functions, including piece-wise linear, exponential and reciprocal graphs. | |
| | Generate terms of a sequence from either a term-to-term or a position-to-term rule. | |
| | Recognise arithmetic sequences and find the nth term. | |
| | Recognise geometric sequences and appreciate other sequences that arise. | |