## Non-linear Graphs – quadratic and cubic

Keywords:	Quadratic / Parabola / Substitute / Cubic / Root / Solution				
Definition / Description:	Quadratic expression contains terms up to and including x <sup>2</sup>	A <b>Parabola</b> is a curved graph formed from a quadratic equation. A parabola has a line of symmetry	Cubic expression contains terms up to and including $x^3$	Substitute: Exchange or replace variables with amounts	Roots or solutions: of graphs are the values of x-coordinates of the point where the graph crosses the x-axis
Knowledge points:	<ol> <li>Plotting graphs:</li> <li>Complete a table of values for a graph, substituting different values of x to find the y coordinate</li> <li>Join the points with a smooth line to create a curve</li> <li>Label the graph</li> </ol>				
Knowledge point examples:	Positive Quadratic in the form $y = x^2$	Negative quadratic in the form $y = -x^2$	Positive cubic graph $y = x^3$	Negative cubic graph y = -x <sup>3</sup>	Complex cubic graph
Linked Knowledge Maps	Linear Graphs Non-linear graphs – rec Solving Quadratic equat	iprocal, exponential and cir tions	rcle		