

Fulwood Academy- KS3 Grade Descriptors- Maths



Level	Algebraic Skills	Geometric Understanding	Percentages & Ratios	Reasoning & Problem Solving	Independence in Problem Solving
1	Performs very basic arithmetic operations. Struggles with solving linear equations and needs substantial support.	Recognises basic shapes and calculates perimeter/area with significant guidance.	Works with simple percentages and fractions but requires substantial guidance.	Uses very limited reasoning and needs step-by-step guidance to solve basic problems.	Struggles to solve problems independently and requires significant support for most tasks.
2	Solves simple linear equations with guidance. Attempts to rearrange formulae but requires support.	Can calculate areas and volumes of simple shapes. Applies Pythagoras' theorem with guidance.	Works with basic percentages and ratios but struggles with compound measures.	Shows some reasoning skills but needs support for explaining methods and solving multi-step problems.	Solves familiar problems with support but struggles with unfamiliar or more complex problems.
3	Solves simple quadratic equations and rearranges basic formulae with support.	Applies Pythagoras' theorem and basic trigonometry to simple problems but requires support for more complex tasks.	Solves percentages and ratios in familiar contexts but needs scaffolding for compound measures like speed.	Shows developing reasoning skills, explaining solutions in familiar contexts but needing guidance in multi-step problems.	Solves familiar problems independently but needs support for unfamiliar or multi-step tasks.
4	Solves quadratic equations, rearranges formulae, and solves simultaneous equations with moderate guidance.	Confidently applies Pythagoras' theorem and basic trigonometry. Can calculate area and volume of 3D shapes like prisms.	Solves problems involving percentages, ratios, and some compound measures in familiar contexts.	Shows clear reasoning, explaining solutions and methods, though some complex reasoning requires support.	Works methodically through familiar problems and can solve multi-step problems with some prompting.
5	Confidently solves quadratic equations, rearranges formulae, and solves simultaneous equations.	Applies Pythagoras' theorem and trigonometry to a variety of problems, including more complex shapes.	Solves problems involving proportional reasoning, direct and inverse proportion, and compound measures like speed and density.	Shows structured reasoning and explains methods clearly in both familiar and unfamiliar contexts, with minimal support.	Solves routine and some non-routine problems independently, connecting algebraic, geometric, and proportional reasoning.
6	Solves complex algebraic problems including quadratic equations, simultaneous equations, and simplifying algebraic fractions independently.	Uses advanced geometric reasoning to solve problems involving trigonometry, Pythagoras' theorem, and surface area/volume of complex 3D shapes.	Fluently solves problems involving proportional reasoning in a wide range of contexts, including compound measures and inverse proportion.	Communicates complex mathematical ideas with clear reasoning and uses appropriate mathematical language and notation.	Solves unfamiliar, multi-step problems independently, demonstrating mastery across algebra, geometry, and proportional reasoning.