



SOUTH WILTS GRAMMAR SCHOOL

Year 7 Standards – Maths

Knowledge/skills	Working towards SWGS Standard for end of Year 7	Working at SWGS Standard for end of Year 7	Working beyond SWGS Standard for end of Year 7
	3-4 students on average per class will be working at this level	Most students will be working at this level.	5-6 students on average per class will be working at this level
Fluency	• Apply knowledge	• Recall and apply knowledge within the topic	• Recall and apply knowledge across topics
Reasoning	• Start to follow a line of enquiry	• Verbalise methods • Follow a line of enquiry	• Verbalise and explain methods and strategies • Use some mathematical language • Make predictions
Problem solving	• Apply their mathematics to problems with some help and hints	• Starting to apply their mathematics to routine/non-routine problems	• Breaking down problems into simpler steps
Number	• Some understanding of place value • Mostly accurate using the 4 operations • Interpret a % • Understanding of equivalence between dec, %, frac • Round to nearest 10, 100, 1000 • Reasonable approximations	• Understand & use place value for decimals, measures and integers • Order numbers (+ - dec & frac) • Use the 4 operations • Percentage of a quantity • Convert between %, dec, frac • Use approximation & rounding	• Calculation with all forms of rational numbers, including negatives • Recognise standard form • Priority of operations • Factors, multiples, primes, indices. • Rounding • % increase & decrease, % change • Powers & roots
Algebra	• Interpret algebraic notation • Collect like terms • Identify number patterns • Apply a term-to-term rule	• Correctly use & interpret algebraic notation • Simplify algebraic expressions • Substitute into formulae • Draw and use linear graphs • Recognise linear sequences and starting to find the nth term • Solve simple linear equations • Work with coordinates in all four quadrants	• Simplify and manipulate algebraic expressions including single brackets • Use formulae to draw linear graphs • Setting up & solving eqns (with brackets) • Confidently find the nth term of a linear sequence • Recognise an Inequality • Re-arrange simple formulae • Interpret distance-time graphs





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Ratio, Proportion and Rates of Change	• Use ratio notation • Reduce a ratio to simplest form	• Express and interpret proportional relationships in a variety of forms • Divide a given quantity into parts	• Solve problems involving direct proportion • Recognise inverse proportion • Use scale factors
Geometry and Measures	• Identify line & rotational symmetry • Know the names of 2-d shapes & find area given formula • Apply some angle properties (Straight line, angles in triangle)	• Derive and apply formulae for area and volume • Nets & surface area (cuboid) • Angle properties (Inc parallel lines) • Simple proofs • Properties of shapes • Reflection & rotation	• Notation for their simple proof • Standard constructions • Exterior and interior angle properties • Volume in triangular prism • Enlargement & translation • Circle calculations • Surface area of other prisms • Recognise congruency
Probability	• Use the 0 – 1 probability scale	• Record & analyse frequency of outcomes • Use appropriate language and notation • Use a sample space diagram	• Confidently generate & use a sample space diagram • Theoretical v's relative frequency
Statistics	• Find a mean, median, mode and the range from a set of data	• Describe, interpret and compare distributions • Work with discrete, continuous and grouped data; and appropriate measures of central tendency and spread • Construct & interpret tables, charts & diagrams	• Mean from frequency table • Compare data
	Use a calculator and other technologies to calculate results accurately and then interpret them appropriately Financial skills		

