

Year 8 THRESHOLD CRITERIA

MATHS

	AO1	AO2	A03	AO4
	Number	Geometry and Measures	Algebra	Statistics and Probability
EXCELLENT	Using indices Using SF to estimate calculations Multiply/divide mixed numbers Solving problems involving % change Using a calculator in context Negative numbers Working with decimals Algebra and proportion	Enlargements with a centre Describe transformations Isometric drawings of shapes made with cubes Volume/surface area of prisms including cylinders	Rearranging formulae Expanding double brackets Algebraic fractions Quadratic graphs Mid point of co-ordinate pairs Time series Equations with fractions Trial and improvement Real life equations Recursive sequence Nth term of simple quadratic	Congruency & similarity Area circumference of circle Imperial measures Comparing distributions Tree diagrams 2 or more events
PROFICIENT	Know cube numbers and roots LCM HCF Prime factor decomposition Other special numbers Recall of all times tables Convert freely between FDP + - fractions with mixed denominators Working with mixed number fractions Simple % increase/decrease Prime factor decomposition Significant figures Solving problems involving ratio, direct and inverse proportion Using ratio to compare proportion (as fraction)	Constructing bisector Simple Loci Plans and elevations Using scale factors (maps etc) Enlargement with positive scale factor Plans and elevations Volume of common prisms	Substitution into complex expressions/formulae Factorising expressions Writing formulae from words Understanding of $y=mx+c$ Draw harder graphs eg $2x+3y=12$ Equations with unknown on both sides Constructing equations from words Finding a rule for nonlinear sequences Sequences in context	Area of a trapezium Surface area of a cuboid Angles in parallel lines Angles in polygons Averages from a table Design a questionnaire Scatter diagrams Stem & Leaf Working with Venn diagrams with 3 sets of data

<p>DEVELOPING</p>	<p>Negative numbers Calculator methods Knowledge of times tables + - fractions Building percentages Rounding to decimal places Listing multiples and factors Know square numbers Recognise some prime numbers Written methods of multiplication/division LCM HCF BIDMAS Prime numbers Rounding to given number of DP Dividing in a given ratio Calculations involving money eg best value</p>	<p>Translate, reflect, rotate on a grid Constructing a triangle using angle measurer Simple scale drawings Isometric drawings Nets of simple 3D shapes Volume of a cuboid Isometric drawings of cubes/cuboids Volume/surface area of cuboid</p>	<p>Simplifying expressions involving brackets Use/write simple formulae Recognising vertical/horizontal lines eg $y=3$ Generate co-ordinates for straight line graph Interpret real life graph Solving 2 step equations Multiplying/Dividing terms Equations with single pair of brackets Finding nth term of linear sequence Geometric sequences</p>	<p>Volume of a cuboid Area of triangle/parallelogram Convert between simple metric units Properties of triangles and quadrilaterals Angles around a point Comparing sets of data Reading and interpreting pie charts Understanding unions and intersections Assigning probabilities based on experiments Listing outcomes</p>
<p>ACQUIRING</p>	<p>Place value and decimals Written methods of + - with borrow/carry Adding decimals Ordering decimals Rounding to nearest 10, 100 Order of operations Multiply/divide decimals by powers of 10 Simple fractions of amounts Equivalent fractions Simple percentage of amounts recognise simple fraction addition eg $1/4 + 1/2 = 3/4$ List factors, multiples and squares Written methods of addition and subtraction Rounding to nearest whole number Rounding to nearest 100 or 1000 Simplifying ratio Simple unitary method</p>	<p>Simple tessellations Properties of 3D shapes Translations Nets of cubes/cuboids Language associated with 3D shapes</p>	<p>Simplifying expressions eg $a+b+3a+2b$ Substitution into simple expressions eg $2a + b$ Co-ordinates in all 4 quadrants Constructing simple line graph Simple substitution Solving 1 step equations Generate a sequence from term to term rule Triangular numbers Real life sequences</p>	<p>Metric conversions Area and perimeter of rectangles Select appropriate unit of measure Drawing and measuring angles Angles on a straight line Angles in a triangle Reading from a pie chart Planning and collecting data Averages and range Assigning numerical probability to equally likely events Transfer information into Venn diagrams Listing simple outcomes</p>