Subject: Mathematics
Faculty: Mathematics
Term: Autumn

EXCELLING (-, =, +)			
	**All of the secure criteria plus:** -Perimeter and area problems involving algebra and/or fractions. Angles with algebra. -Explaining if a coordinate is on a specific line. -Fractional sequences with algebra. Proving a term is within a sequence.	**All of the secure criteria plus:** -finding the radius/diameter from the area/circumference given. -More complex area of compound shapes with circles.	**All of the secure criteria plus:** -reverse area and perimeter with mixed fractions. -Combining ratio -Expanding triple brackets. -reverse compound interest.
SECURE			
	Year 7	**Year 8**	**Year 9**
	Assessment strategy:	**Assessment strategy:**	**Assessed strategy:**
Conditional/Composite	-Forming and solving equations. -Fibonacci sequences with algebra. -Find missing vertex on graph.	-Finding the area/perimeter of compound shapes including algebra.	-Fractions within ratio. -Worded LCM problems. -Finding the area and perimeter of shapes with mixed fractions
Procedural	-To substitute positive integers into expressions and formulae. Forming expressions from words. Solving equations, expanding and factorising -Generate sequences and find the nth term -To read and plot coordinates. Drawing straight line graphs -Simplifying fractions, fraction arithmetic -To work out missing angles in special triangles, straight lines, quadrilaterals, interior and exterior angles	-Round to significant figures and decimal places. -Prime factor decomposition. -Decimal arithmetic. Directed numbers (4 operations). -To substitute into formulae and expressions. -Expand brackets including double brackets. Expand and simplify expressions. -Plot graphs in the form y=mx+c. -Fraction and percentage arithmetic. Working out percentage increase/decrease. -To find the volume and surface area of prisms. Find the area and circumference of circles.	-Substitution of integers + - into expressions/formulae involving brackets and powers Use science formulae also -Simplifying expressions using index notation.Rearranging formulae. -Expanding brackets including double and factorising expressions including quadratic. -Prime factor decomposition-product of prime factors.Finding HCF, LCM of two or more numbers. -Fractional and percentage arithmetic. Simple and compound interest, percentage profit and loss, calculating percentage change.

Declarartive	- Identifying expressions, formulae, terms, equations -To recall perimeter and area of rectangles -Recognising sequences and term to term rules -To identify/recognise axes x and y -To know and recognise fractions as part of a whole -To know common equivalent fractions, decimals, percentages. -To recall basic angle facts	-Identifying prime numbers, and knowing square numbers, cube numbers, roots. Powers of 10 -To know the difference between factors and multiples. -To know and identify on a graph what or where a midpoint is. To explain what a gradient is and what is meant by the word 'gradient'. Link to geography and steepness of hills and mountains. -To know equivalent FDP -To name 2D and 3D shapes including regular polygons -Recall the formulae for area and circumference for a circle.	-To know and use correct algebraic notation. -To know and understand about rounding numbers to decimal places and significant figures. -To know and understand common factors and multiples -To know about commutativity -To recall common units of conversions -To know how to find 10%
DEVELOPING (-, =, +)			
	Not yet secure with all of the criteria set out for the term.		