



Maths Department

Top set challenge: prove geometric facts

Year 8 Term 5			
Stage	Description		
	Section A Prerequisites	Section B Angles in parallel lines and polygons	Section C Area of circles and Trapezia
Emerging	 Can link the use of algebra to shape – finding the area and perimeter. 	Can use one and two step function machines when give both inputs and outputs. Can form an expression from a function machine creating the link with variables.	 Can substitute into simple expressions to find a value. Can substitute into a formula to find the area of a shape.
Developing	 Can use basic angle rules and notation Can identify parallel lines in a diagram Can measure and draw angles with a protractor. Can name different types of triangles. Give the names of polygons. Identify the difference between regular and irregular. Can find the area of rectangles and parallelograms. Can find the area of triangles. 	 Can identify quadrilaterals from properties. Can identify lines of symmetry in quadrilaterals and other polygons, linking to regularity. Use angle properties (parallel lines facts) to identify quadrilaterals Can find the sum of interior and exterior angles of a polygon. 	 Can find the area of a trapezium. Can find the area of a compound shape. Can find the circumference of a circle (with & without calculator) – understanding the ratio of diameter: circumference as 1: pi. Can find the area of a circle.
Secure		 Can form equations from angles problems. Can find missing angles between parallel lines using transversal vocabulary. 	Can identify isosceles vs. non-isosceles trapeziums.
Excellence		 Prove geometric facts investigate diagonals of a quadrilateral. 	 Can proof the area of a trapezium Can find the area of a sector. Can form and solve equations linked with the area.