Teacher(s)	**Year 8 team**	**Subject group and discipline**			
Unit title	**2D Shape**	**MYP year**	**2**	**Unit duration (hrs)**	

Inquiry: Establishing the purpose of the unit

Key concept	**Related concept(s)**	**Global context**
measuring	**Patterns, space**	urban planning
Statement of inquiry		
Measuring patterns in space can inform urban planning		
Inquiry questions		
Factual – **How can we classify polygons? What information do we need to know if a triangle is possible or not? How can we link the properties of quadrilaterals with the naming system for quadrilaterals? How can we work out the area of shapes? How can we visualise a square metre and use it to help us plan for the space people need in the built environment?**		
Conceptual— **What is area? How can we work out the formula for the area of a parallelogram and trapezium from visualising them as compound shapes? Can we see a circle as made up of triangles and use this to work out an estimate for the area of a circle? What relationships are there between the attributes of a circle? How can we represent them?**		
Debatable— **How much space should a student have in a classroom? Can the population of the world fit on the isle of Wight?**		
Objectives	**Summative assessment**	

Assessment 1: B i: apply mathematical problem solving techniques to recognise patterns B ii: describe pattern as relationships or general rules consistent with findings B iii: verify whether the pattern works for other examples .	Assessment 1: Outline of summative assessment task(s) including assessment criteria: G: the goal is to explore goemetric patterns with circles. R: the role is that of mathematician. A: the audience is the mathematical community. S: the situation is one where you are exploring geometric patterns and writing up what you notice. P: the product will be a report explaining the patterns you have noticed. S: this assessment will be assessed under Criterion B	Assessment !: Relationship between summative assessment task(s) and statement of inquiry: This assessment explores patterns in space
Assessment 2: (if used in the unit) A	Assessment 2: (if used in the unit) Outline of summative assessment task(s) including assessment criteria: In this task, students will answer a wide range of questions, from simple to complex to challenging (in both familiar and unfamiliar situations), all related to the topics they have studied this year so far. The test will be done individually in class during one period	Assessment 2: Relationship between summative assessment task(s) and statement of inquiry: Mid year assessment.
Approaches to learning (ATL)		
In order for students to understand how measuring patterns in space can inform urban planning they will need to practise visible thinking strategies and techniques. Explicitly taught and practised skill strategy: this is explicitly taught in block 2 lesson 4 where students explore crowd densities in buildings and explore pictorial representations of their thinking.		