Teacher(s)		Subject group and discipline	Maths		
Unit title	2D Shape	MYP year	1	Unit duration (hrs)	

Inquiry: Establishing the purpose of the unit

Key concept	Related concept(s)	Global context
Relationships	**Patterns** **shape**	Personal and cultural expression creation and artistry

Statement of inquiry

Understanding relationships in patterns and space can enhance artistry and creation.

Inquiry questions

Factual—
What is an angle?
What are the different sorts of angle?
What are the different sorts of triangles?
What are the different sorts of quadrilaterals?

Conceptual—
How are different triangles or quadrilaterals related?
How does measuring lines and angles help identify shapes?

Debatable—
Are some shapes more beautiful than others?
Is art more inspirational or calculation?

Objectives	Summative assessment	
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	Outline of summative assessment task(s) including assessment criteria: G: Understanding relationships in patterns and space can enhance artistry and creation R: Students are artists who have been asked to design the walls and floor of a new mosque. A: The owners of the mosque S: The students will have to explore the properties of different shapes in order to work out which shapes can be used to tile the floor (which shapes tessellate). P: Report with diagrams and explanations concerning the way that the different shapes can be used to create S: The work will be assessed against criterion B	Relationship between summative assessment task(s) and statement of inquiry: Students are looking at patterns made by tessellating shapes. They first need to analyse the relationship between the number of sides that shapes have with the internal angles of the shape. They then see how using the same shape multiple times can create interesting patterns and completely cover a space.

Approaches to learning (ATL)

Communication Skills:

Use and interpret a range of discipline-specific terms and symbols – in particular:

for angles, *acute, obtuse, reflex, right-angle, vertically opposite, alternate, corresponding, co-interior, interior*
for triangles *scalene, isosceles, equilateral,*
for quadrilaterals *square, rectangle, rhombus, parallelogram, trapezium, kite,*
as well as: *symmetry, tesselate*

Understand and use mathematical notation – in particular the geometric notation to show that two lines are parallel/perpendicular/same length, and that angles are the same.

Organisation skills:

Bring necessary equipment and supplies to class – in particular ruler and protractor

Affective Skills

Students will need to practice ‘bouncing back’ after they make mistakes

Information literacy skills:

Students will collect information (often from a diagram) and analyse it to identify solutions and make informed decisions,

Critical thinking skills:

Students will test generalisations and conclusions