Teacher(s)	**Year 8 team**	**Subject group and discipline**			
Unit title	**2d and 3d shape**	**MYP year**	**2**	**Unit duration (hrs)**	

Inquiry: Establishing the purpose of the unit

Key concept	**Related concept(s)**	**Global context**
Form	**Space, model**	Exploring creativity in 3d design.
Statement of inquiry		
Modelling objects in space as forms can help us explore creativity in 3d design.		
Inquiry questions		
Factual – **How can we classify the ways in which we can move shapes around on a 2d co-ordinate grid? How can we work out the volume of a cuboid? How can ber work out the volume of a prism? How can we design a net to make a 3d shape? What additional elements do we need with the net to make the 3d shape a coherent shape that doesn't fall apart?**		
Conceptual— **What is volume and how does it link to capacity? What is surface area? What are the properties of transformations (reflection, rotation and translation)?**		
Debatable— **What is the best way to model the volume of an irregular 3d shape? What is the best 2d net to give a stable cuboid 3d shape? Does this depend on the method of construction? What is the best way to represent 3d shapes in 2d?**		
Objectives	**Summative assessment**	

Assessment 1: D i identify relevant elements of authentic real-life situations D ii select appropriate mathematical strategies when solving authentic real-life situations D iii apply selected mathematical strategies successfully to reach a solution D iv justify the degree of accuracy of a solution D v justify whether the solution makes sense in the context of the real-life situation	Assessment 1: Outline of summative assessment task(s) including assessment criteria: G: the goal is design a smoothie box. R: your role is as a product designer. A: your audience is the firm that make smoothies. S: the situation is that the company want to make a box for 12 smoothies subject to various requirements. P: you will produce a report. S: this assessment will be assessed under criterion D	Assessment !: Relationship between summative assessment task(s) and statement of inquiry: Students model objects in space as forms and use this to explore creativity in designing a smoothie box
Assessment 2: (if used in the unit)	Assessment 2: (if used in the unit) Outline of summative assessment task(s) including assessment criteria:	Assessment 2: Relationship between summative assessment task(s) and statement of inquiry:
Approaches to learning (ATL)		
In order for students to understand how modelling objects in space as forms can help us explore creativity in 3d design they will need to build consensus. Explicitly taught and practised skill strategy: this is explicitly taught in block 2 lesson 2 where students explore the possible surface areas for a shape but need to build consense on the assumptions made to come to a conclusion.		