

Student Name: \_\_\_\_\_ Year 8: \_\_\_\_\_ Year 9: \_\_\_\_\_ Year 10: \_\_\_\_\_

SPACE		Levels			
	2	3	4	5	6
<b>15 Represent spatial ideas</b> Students visualise, draw and model shapes, locations and arrangements and predict and show the effect of transformations on them.	S 15a.2 <i>Represent location</i> <b>The student:</b> Attends to order and 'betweenness' on informal maps and in descriptions of locations and paths.	S 15a.3 <i>Represent location</i> <b>The student:</b> Understands a map or plan as a 'bird's-eye view' and uses order, proximity and directional language associated with quarter and half turns on maps and in descriptions of locations and paths.	S 15a.4 <i>Represent location</i> <b>The student:</b> Uses distance, direction and grids on maps and plans and in descriptions of locations and paths.	S 15a.5 <i>Represent location</i> <b>The student:</b> Uses coordinates, key bearings and scale on maps and plans and in descriptions of locations and paths.	S 15a.6 <i>Represent location</i> <b>The student:</b> Visualises, sketches and describes paths and regions, including using bearings and scale, that satisfy specified conditions.
				<i>Represent arrangements</i> <b>The student:</b> Identifies the essential features of a location or arrangement needed to serve a purpose and represents them in networks and other diagrams.	<i>Represent arrangements</i> <b>The student:</b> Uses networks and other diagrams to represent the order of, and paths between, locations.
	S 15b.2 <i>Represent shape</i> <b>The student:</b> Meets simple criteria relating to shape or structure when making and drawing things, creating recognizable copies of arrangements of shapes.	S 15b.3 <i>Represent shape</i> <b>The student:</b> Attends to the shape and placement of parts when matching, making and drawing things, including matching 3D models that can be seen and handled with conventional drawings of them and with their nets.	S 15b.4 <i>Represent shape</i> <b>The student:</b> Attends to the shape, size and placement of parts when matching, making and drawing things, including making nets of 3D models that can be seen and handled using some basic conventions for drawing them.	S 15b.5 <i>Represent shape</i> <b>The student:</b> Visualises and makes models of 3D shapes and arrangements and interprets and produces conventional mathematical drawings of them.	S 15b.6 <i>Represent shape</i> <b>The student:</b> Interprets and meets specifications requiring the accurate construction and placement of figures and objects.
	S 15c.2 <i>Represent transformations</i> <b>The student:</b> Uses multiple copies of shapes to construct repetitive patterns and follows and describes simple movement rules for generating such patterns.	S 15c.3 <i>Represent transformations</i> <b>The student:</b> Recognises repetitions of the same shape within arrangements and patterns and uses repetitions of figures and objects systematically to produce arrangements and patterns.	S 15c.4 <i>Represent transformations</i> <b>The student:</b> Recognises rotations, reflections and translations in arrangements and patterns, and translates, rotates and reflects figures and objects systematically to produce arrangements and patterns.	S 15c.5 <i>Represent transformations</i> <b>The student:</b> Visualises and sketches the effect of straightforward translations, reflections, rotations and dilations of figures and objects using suitable grids.	S 15c.6 <i>Represent transformations</i> <b>The student:</b> Visualises, produces and describes accurately specific translations, reflections, rotations and dilations.
<b>16 Reas on geometrically</b> Students reason about shapes, transformations and arrangements to solve problems and justify solutions.	S 16.2 <b>The student:</b> Sorts things according to everyday spatial criteria and, when prompted, uses own spatial language to describe the shape of things.	S 16.3 <b>The student:</b> Interprets common spatial language and uses it to describe and compare features of things.	S 16.4 <b>The student:</b> Selects, describes and compares figures and objects on the basis of spatial features, using conventional geometric criteria.	S 16.5 <b>The student:</b> Analyses, describes and applies distinguishing features of common classes of mathematical figures and objects, including angle relationships and uses the terms 'parallel' and 'perpendicular' in context.	S 16.6 <b>The student:</b> Analyses, describes and applies properties of, and relationships between, the classes of figures that can be reasoned about in terms of the properties of triangles, similarity and congruence, parallel and intersecting lines and angle relationships, including circle geometry.