Learning Journey – Transformations

Reference	Content	Review		
		☹	😐	☺
GM5.1	Position and Cartesian coordinates *(Grade 1)* • Solve geometric problems on coordinate axes • Use conventional terms and notations: points, lines			
GM5.2	Cartesian coordinates in four quadrants *(Grade 1)* • Solve geometric problems on coordinate axes • Use conventional terms and notations: points, lines			
GM5.3	Translation *(Grade 1)* • Identify, describe and construct congruent and similar shapes, including on coordinate axes by considering translation. • Describe translations as 2D vectors			
GM5.4	Reflection *(Grade 2/3)* • Identify, describe and construct congruent and similar shapes, including on coordinate axes by considering reflection and translation.			
GM5.5	Rotation *(Grade 2/3)* • Identify, describe and construct congruent and similar shapes, including on coordinate axes by considering rotation, reflection and translation.			
GM5.6	Enlargement *(Grade 3/4)* • Identify, describe and construct congruent and similar shapes, including on coordinate axes by considering rotation, reflection, translation and enlargement (including fractional scale factors). • Use scale factors • Compare lengths and areas. • Make links to scale factors			
GM5.7	Similarity *(Grade 5 / 6)* • Identify, describe and construct congruent and similar shapes, including on coordinate axes by considering rotation, reflection, translation and enlargement. • Use scale factors • Compare lengths and areas. • Make links to similarity and scale factors. • Apply the concepts of congruence and similarity, including the relationships between			

	lengths in similar figures			
GM5.8	**Trigonometry (Grade 5/6)** • Know the formulae for the trigonometric ratios, sin θ, cos θ, and tan θ; apply them to find angles and lengths in right-angled triangles in two dimensional figures • Compare lengths and areas using ratio notation; make links to similarity (including trigonometrical ratios)			
GM5.9	**Trig for special angles (Grade 5/6)** • Know the exact values of sin θ and cos θ for θ = 0°, 30°, 45°, 60° and 90°. • Know the exact value of tan θ for θ = 0°, 30°, 45° and 60°.			
GM5.10	**Finding centres of rotation (Grade 5/6)** • Use construction to find the centre of rotation given an object and an image			
GM5.11	**Enlargement with Negative scale factors (Grade 7)** • Identify, describe and construct congruent and similar shapes, including on coordinate axes by considering rotation, reflection, translation and enlargement (including fractional and negative scale factors)			
GM5.12	**Combining transformations (Grade 7)** • Describe the changes and invariance achieved by combinations of rotations, reflections and translations			
GM5.13	**Trig in 2D and 3D (Grade 8)** • Know the formulae for Pythagoras' theorem and the trigonometric ratios, sin θ, cos θ, and tan θ; apply them to find angles and lengths in right-angled triangles and, where possible, general triangles in two and three dimensional figures • Know and apply the sine rule and cosine rule to find unknown lengths and angles			

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STUDENT REFLECTION

I can now

This is something i could not do at the start of the topic

I now understand

This is something i did not understand at the start of the topic

I need more help with

As i still have ot quite understood it

The work i am most proud of in this topic is

Because

I believe I am working at level _____ in this topic