Progressive Capacity Matrix/Continuum - Mathematics - Transformations

			LEARNING						GOING FURTHER	
Capacity	Capacity Breakdown (Content Descriptor and Standard)	Explanation (Elaboration - AusVELS) THIS WOULD BE HIDDEN	Information (I have heard of this)	Knowledge (I understand and can explain this)	Know-how (I can do this on my own)	Evidence (I have done this)			Wisdom (I am able to create something that could be used to teach others) My Summative Assessment	Evidence of Wisdom (I have taught others) Student Name Who Has The Summative Assessment
			1 Beginning To Understand	2 I'm Almost There	3 I'm Competant At This	Sample 1 Of Assessment (E.g. Pre-Assessment/Diagnostic Tool)	Sample 2 As Assessment (E.g. Student Work)	Other?		
Transformations	**Investigate the effect of one-step slides and flips with and without digital technologies** (ACMMG045)									
	Identify and describe **half and quarter turns** (ACMMG046)									
	...and explain the effects of one-step transformations.									
	Describe **translations, reflections** and rotations of two-dimensional shapes. (ACMMG114)									
	Apply the **enlargement transformation** to familiar two dimensional shapes and **explore the properties of the resulting image compared with the original** (ACMMG115)	* Using digital technologies to enlarge shapes * Using a grid system to enlarge a favourite image or cartoon								
	They describe transformations of two-dimensional shapes…									
	Investigate **combinations** of translations, reflections and rotations, **with and without the use of digital technologies** (ACMMG142)	* Designing a school or brand logo using transformation of one or more shapes * Understanding that translations, rotations and reflections can change the position and orientation but not shape or size								
	Introduce the Cartesian coordinate system using all four quadrants (ACMMG143)	* Understanding that the Cartesian plane provides a graphical or visual way of describing location								
	Students use **ordered pairs of integers to represent** coordinates of points and locate **a point in any one of the** four quadrants on the Cartesian plane.									
	...and investigate combinations of transformations in the plane, with and without the use of digital technology.									
	Describe translations, reflections **in an axis, and rotations of multiples of 90° on the Cartesian plane using coordinates.** (ACMMG181)	* Describing patterns and investigating different ways to produce the same transformation such as using two successive reflections to provide the same result as a translation * Experimenting with, creating and recreating patterns using combinations of reflections and rotations using digital technologies								
	FROM LINEAR AND NON-LINEAR RELATIONSHIPS **Given coordinates**, plot points on the Cartesian plane, **and find coordinates for a given point** (ACMNA178)	* Plotting points from a table of integer values and recognising simple patterns, such as points that lie on a straight line								
	They **assign ordered pairs to** given points on the Cartesian plane.									
	Students classify triangles and quadrilaterals and **represent** transformations of these shapes in the Cartesian plane, with and without digital technology.									