# Victorian Curriculum vs AusVELS AC: Mathematics - Measurement and Geometry (SUB-STRANDS WITH ELABORATIONS) 

PROGRESSION IS HIGHLIGHTED IN THE FOLLOWING DOCUMENT VIA BOLDED TEXT
Based on Australian Curriculum, Assessment and Reporting Authority (ACARA) materials

| Year Level Indicators | Level descripions | Sub-strands |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Units of measurement |  | Shape |  | Geometric |  | Location and transformation |  |
|  |  | Content descriptions | Elaborations | Content descriptions | Elaborations | Content descriptions | Elaborations | Content descriptions | Elaborations |
| Foundation |  | Use direct and indirect comparisons to decide which is longer, heavier or holds more, and explain reasoning in everyday language (ACMMG006) (VCMMG078) <br> Compare and order the duration of events using the everyday language of time <br> (ACMMG007) (VCMMG079) <br> Connect days of the week to familiar events and actions (ACMMG008) (VCMMG080) |  | $\begin{gathered} \text { Sort, describe and name familiar } \\ \text { two-dimensional shapes and three- } \\ \text { dimensional objects in the } \\ \text { environment } \\ \text { (ACMMG009) (VCMMG081) } \end{gathered}$ | * Sorting and describing squares, circles, triangles, rectangles, spheres and cubes | N/ | N/A | Describe position and movement (ACMMG010) (VCMMG082) |  |
| Foundation Leve Achievement Standard | NOTE: The standards are not divided into substrands in the Victorian Curriculum documents. However, logic would dictate that the standards could be put into sub-strands, as demonstrated to the right. |  |  | Students identify simple shapes in their environment and sort shapes by their common and distinctive features. |  | NA | N/ | They use simple statements and gestures to describe location. |  |
| Level 1 | 'In Level 1, students use mathematical symbols and language as well as materials and drawings in their mathematical explorations of daily life...,' <br> Students use uniform informal units to measure and compare length and capacity. <br> They tell time to the half-hour and use time and calendar terms such as hours, days, weeks and months to describe duration. <br> Students use terms such as corner, edge and face to classify familiar shapes and objects, and are able to give and follow directions to familiar locations..., |  |  | Recognise and classify familiar twodimensional shapes and three dimensional objects using obvious features <br> (ACMMG022) (VCMMG098) | * Focusing on geometric features and describing shapes and objects using everyday words such as 'corners', 'edges' and 'faces' 'corners', 'edges' and 'faces' | N/A | N/A | Give and follow directions to familiar locations. <br> (ACMMGO23) (VCMMGO99) |  |
| Level 1 Achievement Standard | NOTE: The standards are not divided into substrands in the Victorian Curriculum documents. However, logic would dictate that the standards could be put into sub-strands, as demonstrated to the right. <br> the right | Students use informal units to of <br> measurement to order objects <br> based on length and capacity. <br> They tell time tothe half four and <br> explain time durations. |  | Students describe two-dimensional shapes and three-dimensional objects. |  | N/ | N/ | They use the language of direction to move from place to place. |  |






The Victorian Curriculum vs AusVELS- Mathematics: Measurement and Geometry (Sub-Strands with Elaborations) (F-7)
Based on Australian Curriculum, Assessment and Reporting Authority (ACARA) maeerials (Date PDF created: June 5 , 2016)

| Year Level Indicators | Level descriptions | rement |  | Shape |  |  |  | ation and transformation |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Content descriptions | Elaborations | Content descriptions | Elaborations | Content descriptions | Elaborations |
| Level 5 | ...Students choose and use suitable metric and other units for measurement of length, angle, area, volume, capacity and mass. <br> They calculate the perimeter and area of rectangles, and construct specified angles technologies. <br> Students use 12 and 24 hour time systems, with measurements and conversions to <br> They use grid reference systems to describe location and connect three-dimension objects in two-dim <br> They translate, reflect and rotate shapes with point and line symmetries. <br> They explore similarity of familiar shapes through enlargement... | Choose appropriate units of measurement tor length, area, volume, capacity and mass (ACMMG108) (VCMMG195) Content description and elaboration modified | * Investigating alternative measures of scale to demonstrate that these vary between countries and change over time. For example, temperature measurement in Austraia, Indonesia, Japan and USA <br> * Recognising that some units of measurement are better suited for some tasks than others, for example kilometres rather than metres to measure the distance between two towns | Connect three-dimensional objects with their nets and other two- dimensional representations (ACMMG111) (VCMMG198) |  | Estimate, measure and compare <br> angles using degrees. <br> Construct angles using a protractor <br> (ACMMG112) (VCMMG202) |  | Use a grid reference system to <br> describe locations. <br> Describe routes using landmarks and directional language (ACMMG113) (VCMMG199) | * Comparing aerial views of Country, desert paintings and maps with grid references <br> * Creating a grid reference system for the classroom and using it to locate objects and describe routes from one object to another |
|  |  | Calculate the perimeter and area of rectangles using familiar metric units <br> (ACMMG109) (VCMMG196) <br> Elaborations modified | * Exploring efficient ways of calculating the perimeters of rectangles such as adding the length and width together and doubling the result <br> * Exploring efficient ways of finding the areas of rectangles <br> * Measuring volume and capacity by counting the number of cubes (cubic centimetres) <br> * Exploring efficient ways of finding the volume and capacity of rectangular prisms and cubes |  |  |  |  | Describe translations, reflections and rotations of two-dimensional shapes. <br> Identify line and rotational symmetries <br> (ACMMG114) (VCMMG200) | * Identifing and describing the line and rotationan symmetty of a range of two-dimensional shapes by manually cutting, foldonng and turning shapes and by using digital technologies *Identifying the effects of transtormations by manually flipping, siding and turung two-dimensional shapes and by using digital technologies |
|  |  | Compare 12- and 24-hour time systems and convert between them (АСмMG110) (VCMMG197) | * Investigating the ways time was and is measured in different Aboriginal Country, such as using tidal change |  |  |  |  |  | $*$ Using digital technologies to enlarge <br> shapes <br> * Using a grid system to enlarge a <br> favourite image or cartoon |
| Level 5 Achievement Standard | NOTE: The standards are not divided into sub- strands in the Victorian Curricum documents. However, logic would dictate that the standards could be put into sub-strands, as demonstrated to to the right. |  |  | Students connect three-dimensiona objects with their two-dimensional representations. |  | They estimate angles, and use protractors and digital technology to construct and measure different angles. |  |  |  |



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|  |  | Content descriptions | Elaborations | Content descriptions | Elaborations | Content descriptions | Elaborations | Content descriptions | Elaborations |
| Level 6 |  |  |  |  |  |  | * Identifying the size of a right angle as $90^{\circ}$ and defining acute, obtuse, straight and reflex angles <br> * Measuring, estimating and comparing angles in degrees and classifying angles according to their sizes <br> * Investigating the use of rotation and symmetry in the diagrammatic representations of kinship relationships of Central and Western Desert people Desert people <br> * Recognising and using the two alternate conventions for naming angles |  | * Understanding which attributes of a shape remain the same or change under the effects of transformations such as size, shape or orientation * Creating tessellations with simple shapes or simple composite shapes <br> * Understanding that the Cartesian plane provides a graphical or visual way of describing location |
| Level 6 <br> Achievement Standard |  |  |  |  |  |  |  |  |  |

The Victorian Curriculum vs AusVELS- Mathematics: Measurement and Geometry (Sub-Strands with Elaborations) (F-7)
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| Year Level Indicators | Level descriptions | Sub-strands |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Units of measurement |  | Shape |  | Geometric reasoning |  | Location and transtormation |  |
|  |  | Content descriptions | Elaborations | Content descriptions | Elaborations | Content descriptions | Elaborations | Content descriptions | Elaborations |
| Level 7 | ',...Students use formulas for calculating areas of triangles, rectangles and related shapes, and volumes of cubes and rectangular prisms. <br> They form two-dimensional representations of prisms, buildings and other structures. <br> They use simple combinations of transformations, with and without technology, to create geometric patterns and identify line and point symmetry, apply parallel line and transversal angle properties, angles sums in triangles and quadrilaterals, classify triangles and quadrilaterals, and construct them using compass and straight edge and dynamic geometry technology..., | Establish the formulas for areas of <br> rectangles, triangles and <br> paralleleolarams and use these in <br> problem solving(ACMMG159) (VCMMG258) |  | Draw different views of prisms and <br> solids formed from combinations <br> of prisms(ACMMG161) (VCMMG260) | * Using aerial views of buildings and other 3D structures to visualise the structure of the building or prism | Classify triangles accorring to <br> their side and angle properties <br> and describe quadriliterals <br> (ACMMG165) (VCMMG262)$\|$ |  | Describe translations, reflections in an axis, and rotations of multiples of $90^{\circ}$ on the Cartesian plane using coordinates. <br> Identify line and rotational symmetries <br> (ACMMG181) (VCMMG261) |  |
| Level 7 Achievement Standard | NOTE: The standards are not divided into subHowever, logic would dictate that the standards could be put into sub-strands, as demonstrated to the right. |  |  |  <br> They classify trii |  |  <br> nt transformations of these shapes in | San plane, with and | From NUMBER \& ALGEBRA <br> They assign ordered pairs to given <br> points on the Cartesian plane... |  |

