Indicative progress descriptions

The Victorian Curriculum F–10 has been designed as a continuum of learning, with achievement standards provided at the end of a level or, more typically, at the end of a band of levels. As students progress along the curriculum, indicative progress descriptions can be used by teachers to describe what student progress looks like *between* achievement standards. Such a description of a student’s progression of learning may be useful to a teacher when they need to assess and report the student’s learning progress *when they are only partially through teaching the level* and hence the student is still working towards the level achievement standard.

To assist teachers to develop their own indicative progress descriptions, the VCAA has provided an annotated example of indicative progress, a curriculum-specific example of indicative progress and indicative progress templates prepopulated with the curriculum-specific achievement standards (see below).

Teachers are encouraged to look at both the annotated example below and the curriculum-specific example of indicative progress (see page 2), before filling in the indicative progress template from page 3 onward.

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Annotated example of indicative progress

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| **Curriculum Area**  **Step 1:** *Identify the curriculum area and the levels the assessment will span.*  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Descriptions:**  **Step 5:** *Develop a description of what a student would be expected to do, make, say or write as they progress towards the next achievement standard.* | | |
| **Level X Achievement Standard** | **Example of indicative progress towards achievement standard** | **Level Y Achievement Standard** |
| By the end of Level X students can: … | When progressing towards Level Y students can: …  **Step 4:** *Highlight the specific elements of the achievement standard that are being targeted in this context.* | By the end of Level Y students can: … |

**Step 2:** *Draw the context from the learning plan and include an outline of the unit or topic.*

**Step 3:** *Choose which content descriptions will be taught and assessed in this unit.*

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| **CURRICULUM AREA: Mathematics (Measurement and Geometry) sequence towardLevel 8 achievement standard** | | |
| 1  **Context:** Students cover related content and proficiencies when they engage in learning activities where they:  2   * form estimates for π using empirical data and use these to calculate circumferences of other circles * investigate the use of geometric shapes and related measures in handy-work, art, design, building and architecture * use congruence of triangles to deduce properties of quadrilaterals and demonstrate these using dynamic geometry software | | |
| **Content Descriptions:**  3   * Measure, calculate and compare elapsed time ([VCMMG227](https://victoriancurriculum.vcaa.vic.edu.au/Search?q=VCMMG227)) * Solve problems involving duration, including using 12- and 24-hour time within a single time zone ([VCMMG290](https://victoriancurriculum.vcaa.vic.edu.au/Search?q=VCMMG290)) | | |
| **Mathematics Level 7 Achievement Standard** | **Example of Indicative Progress toward Level 8 Achievement Standard** | **Mathematics Level 8 Achievement Standard** |
| By the end of Level 7:   * Students use formulas for the area and perimeter of rectangles. * They classify triangles and quadrilaterals and represent transformations of these shapes on the Cartesian plane, with and without the use of digital technology. * Students name the types of angles formed by transversals crossing parallel lines and solve simple numerical problems involving these lines and angles. * They describe different views of three-dimensional objects, and use models, sketches and digital technology to represent these views. * Students calculate volumes of rectangular prisms. | In **Mathematics**, indicative progression towards the Level 8 achievement standard may be when students:   * develop approximations for *π* and use these to calculate the circumference of a circle * explain practical uses of triangles, parallelograms, rhombuses, kites and circles and related measures in art, design, building and architecture.   4 | By the end of Level 8:  5   * Students convert between units of measurement for area and for volume. They find the perimeter and area of parallelograms, rhombuses and kites. * Students name the features of circles, calculate circumference and area, and solve problems relating to the volume of prisms. * They make sense of time duration in real applications, including the use of 24-hour time. * Students identify conditions for the congruence of triangles and deduce the properties of quadrilaterals. * They use tools, including digital technology, to construct congruent shapes. |

Curriculum-specific example of indicative progress

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Below is a curriculum-specific example with each step marked, to demonstrate how to complete an indicative progress template.

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| **CURRICULUM AREA – Mathematics (Measurement and Geometry) toward Level 1 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context: [INSERT Context from the learning plan and include an outline of the unit or topic you are assessing]** | | |
| **Content Description(s): [INSERT Content description/s which will be taught and assessed in this unit]** | | |
| **Mathematics Foundation Level Achievement Standard** | **Example of Indicative Progress toward Level 1 Achievement Standard** | **Mathematics Level 1 Achievement Standard** |
| By the end of the Foundation Level:   * Students identify measurement attributes in practical situations and compare lengths, masses and capacities of familiar objects. * They order events, explain their duration, and match days of the week to familiar events. * Students identify simple shapes in their environment and sort shapes by their common and distinctive features. * They use simple statements and gestures to describe location. | In **Mathematics (Measurement and Geometry)**, indicative progression towards the Level 1 achievement standard may be when students: | By the end of Level 1:   * Students use informal units of measurement to order objects based on length, mass and capacity. * They tell time to the half-hour and explain time durations. * Students describe two-dimensional shapes and three-dimensional objects. * They use the language of distance and direction to move from place to place. |

Indicative progress template

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| **CURRICULUM AREA – Mathematics (Measurement and Geometry) toward Level 2 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Description(s):** | | |
| **Mathematics Level 1 Achievement Standard** | **Example of Indicative Progress toward Level 2 Achievement Standard** | **Mathematics Level 2 Achievement Standard** |
| By the end of Level 1:   * Students use informal units of measurement to order objects based on length, mass and capacity. * They tell time to the half-hour and explain time durations. * Students describe two-dimensional shapes and three-dimensional objects. * They use the language of distance and direction to move from place to place. | In **Mathematics (Measurement and Geometry)**, indicative progression towards the Level 2 achievement standard may be when students: | By the end of Level 2:   * Students order shapes and objects, using informal units for a range of measures. * They tell time to the quarter hour and use a calendar to identify the date, days, weeks and months included in seasons and other events. * Students draw two-dimensional shapes, specify their features and explain the effects of one-step transformations. * They recognise the features of three-dimensional objects. * They interpret simple maps of familiar locations. |

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| **CURRICULUM AREA – Mathematics (Measurement and Geometry) toward Level 3 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Description(s):** | | |
| **Mathematics Level 2 Achievement Standard** | **Example of Indicative Progress toward Level 3 Achievement Standard** | **Mathematics Level 3 Achievement Standard** |
| By the end of Level 2:   * Students order shapes and objects, using informal units for a range of measures. * They tell time to the quarter hour and use a calendar to identify the date, days, weeks and months included in seasons and other events. * Students draw two-dimensional shapes, specify their features and explain the effects of one-step transformations. * They recognise the features of three-dimensional objects. * They interpret simple maps of familiar locations. | In **Mathematics (Measurement & Geometry)**, indicative progression towards the Level 3 achievement standard may be when students: | By the end of Level 3:   * Students use metric units for length, area, mass and capacity. * They tell time to the nearest minute. * Students identify symmetry in natural and constructed environments. * They use angle size as a measure of turn in real situations and make models of three-dimensional objects. * Students match positions on maps with given information and create simple maps. |

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| **CURRICULUM AREA – Mathematics (Measurement and Geometry) toward Level 4 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Description(s):** | | |
| **Mathematics Level 3 Achievement Standard** | **Example of Indicative Progress toward Level 4 Achievement Standard** | **Mathematics Level 4 Achievement Standard** |
| By the end of Level 3:   * Students use metric units for length, area, mass and capacity. * They tell time to the nearest minute. * Students identify symmetry in natural and constructed environments. * They use angle size as a measure of turn in real situations and make models of three-dimensional objects. * Students match positions on maps with given information and create simple maps. | In **Mathematics (Measurement and Geometry)**, indicative progression towards the Level 4 achievement standard may be when students: | By the end of Level 4:   * Students compare areas of regular and irregular shapes, using informal units. * They solve problems involving time duration. * Students use scaled instruments to measure length, angle, area, mass, capacity and temperature of shapes and objects. * They convert between units of time. * Students create symmetrical simple and composite shapes and patterns, with and without the use of digital technology. * They classify angles in relation to a right angle. * Students interpret information contained in maps. |

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| **CURRICULUM AREA – Mathematics (Measurement and Geometry) toward Level 5 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Description(s):** | | |
| **Mathematics Level 4 Achievement Standard** | **Example of Indicative Progress toward Level 5 Achievement Standard** | **Mathematics Level 5 Achievement Standard** |
| By the end of Level 4:   * Students compare areas of regular and irregular shapes, using informal units. * They solve problems involving time duration. * Students use scaled instruments to measure length, angle, area, mass, capacity and temperature of shapes and objects. * They convert between units of time. * Students create symmetrical simple and composite shapes and patterns, with and without the use of digital technology. * They classify angles in relation to a right angle. * Students interpret information contained in maps. | In **Mathematics (Measurement and Geometry)**, indicative progression towards the Level 5 achievement standard may be when students: | By the end of Level 5:   * Students use appropriate units of measurement for length, area, volume, capacity and mass, and calculate perimeter and area of rectangles and volume, and capacity of rectangular prisms. * They convert between 12 and 24-hour time. * Students use a grid reference system to locate landmarks. * They estimate angles, and use protractors and digital technology to construct and measure angles. * Students connect three-dimensional objects with their two-dimensional representations. * They describe transformations of two-dimensional shapes and identify line and rotational symmetry. |

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| **CURRICULUM AREA – Mathematics (Measurement and Geometry) toward Level 6 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Description(s):** | | |
| **Mathematics Level 5 Achievement Standard** | **Example of Indicative Progress toward Level 6 Achievement Standard** | **Mathematics Level 6 Achievement Standard** |
| By the end of Level 5:   * Students use appropriate units of measurement for length, area, volume, capacity and mass, and calculate perimeter and area of rectangles and volume, and capacity of rectangular prisms. * They convert between 12 and 24-hour time. * Students use a grid reference system to locate landmarks. * They estimate angles, and use protractors and digital technology to construct and measure angles. * Students connect three-dimensional objects with their two-dimensional representations. * They describe transformations of two-dimensional shapes and identify line and rotational symmetry. | In **Mathematics (Measurement and Geometry)**, indicative progression towards the Level 6 achievement standard may be when students: | By the end of Level 6:   * Students relate decimals to the metric system and choose appropriate units of measurement to perform a calculation. * They solve problems involving time, length and area, and make connections between capacity and volume. * Students interpret a variety of everyday timetables. * They solve problems using the properties of angles and investigate simple combinations of transformations in the plane, with and without the use of digital technology. * Students construct simple prisms and pyramids. |

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| **CURRICULUM AREA – Mathematic (Measurement and Geometry) toward Level 7 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Description(s):** | | |
| **Mathematics Level 6 Achievement Standard** | **Example of Indicative Progress toward Level 7 Achievement Standard** | **Mathematics Level 7 Achievement Standard** |
| By the end of Level 6:   * Students relate decimals to the metric system and choose appropriate units of measurement to perform a calculation. * They solve problems involving time, length and area, and make connections between capacity and volume. * Students interpret a variety of everyday timetables. * They solve problems using the properties of angles and investigate simple combinations of transformations in the plane, with and without the use of digital technology. * Students construct simple prisms and pyramids. | In **Mathematics (Measurement and Geometry)**, indicative progression towards the Level 7 achievement standard may be when students: | By the end of Level 7:   * Students use formulas for the area and perimeter of rectangles. * They classify triangles and quadrilaterals and represent transformations of these shapes on the Cartesian plane, with and without the use of digital technology. * Students name the types of angles formed by transversals crossing parallel lines and solve simple numerical problems involving these lines and angles. * They describe different views of three-dimensional objects, and use models, sketches and digital technology to represent these views. * Students calculate volumes of rectangular prisms. |

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| **CURRICULUM AREA – Mathematics (Measurement and Geometry) toward Level 8 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Description(s):** | | |
| **Mathematics Level 7 Achievement Standard** | **Example of Indicative Progress toward Level 8 Achievement Standard** | **Mathematics Level 8 Achievement Standard** |
| By the end of Level 7:   * Students use formulas for the area and perimeter of rectangles. * They classify triangles and quadrilaterals and represent transformations of these shapes on the Cartesian plane, with and without the use of digital technology. * Students name the types of angles formed by transversals crossing parallel lines and solve simple numerical problems involving these lines and angles. * They describe different views of three-dimensional objects, and use models, sketches and digital technology to represent these views. * Students calculate volumes of rectangular prisms. | In **Mathematics (Measurement and Geometry)**, indicative progression towards the Level 8 achievement standard may be when students: | By the end of Level 8:   * Students convert between units of measurement for area and for volume. * They find the perimeter and area of parallelograms, rhombuses and kites. * Students name the features of circles, calculate circumference and area, and solve problems relating to the volume of prisms. * They make sense of time duration in real applications, including the use of 24-hour time. * Students identify conditions for the congruence of triangles and deduce the properties of quadrilaterals. * They use tools, including digital technology, to construct congruent shapes. |

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| **CURRICULUM AREA – Mathematics (Measurement and Geometry) toward Level 9 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Description(s):** | | |
| **Mathematics Level 8 Achievement Standard** | **Example of Indicative Progress toward Level 9 Achievement Standard** | **Mathematics Level 9 Achievement Standard** |
| By the end of Level 8:   * Students convert between units of measurement for area and for volume. * They find the perimeter and area of parallelograms, rhombuses and kites. * Students name the features of circles, calculate circumference and area, and solve problems relating to the volume of prisms. * They make sense of time duration in real applications, including the use of 24-hour time. * Students identify conditions for the congruence of triangles and deduce the properties of quadrilaterals. * They use tools, including digital technology, to construct congruent shapes.. | In **Mathematics (Measurement and Geometry)**, indicative progression towards the Level 9 achievement standard may be when students: | By the end of Level 9:   * Students solve measurement problems involving perimeter and area of composite shapes, surface area and volume of rectangular prisms and cylinders, with and without the use of digital technology. * They relate three-dimensional objects to two-dimensional representations. * Students explain similarity of triangles, interpret ratios and scale factors in similar figures, and apply Pythagoras's theorem and trigonometry to solve problems involving angles and lengths in right-angled triangles. |

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| **CURRICULUM AREA – Mathematics (Measurement and Geometry) toward Level 10 achievement standard**  Previous level’s achievement standard as a starting point of comparison  Previous level’s achievement standard as a starting point of comparison | | |
| **Context:** | | |
| **Content Description(s):** | | |
| **Mathematics Level 9 Achievement Standard** | **Example of Indicative Progress toward Level 10 Achievement Standard** | **Mathematics Level 10 Achievement Standard** |
| By the end of Level 9:   * Students solve measurement problems involving perimeter and area of composite shapes, surface area and volume of rectangular prisms and cylinders, with and without the use of digital technology. * They relate three-dimensional objects to two-dimensional representations. * Students explain similarity of triangles, interpret ratios and scale factors in similar figures, and apply Pythagoras's theorem and trigonometry to solve problems involving angles and lengths in right-angled triangles. | In **Mathematics (Measurement and Geometry)**, indicative progression towards the Level 10 achievement standard may be when students: | By the end of Level 10:   * Students solve and explain surface area and volume problems relating to composite solids. * They use parallel and perpendicular lines, angle and triangle properties, similarity, trigonometry and congruence to solve practical problems and develop proofs involving lengths, angles and areas in plane shapes. * They use digital technology to construct and manipulate geometric shapes and objects, and explore symmetry and pattern in two dimensions. |