



Australian Curriculum Version 9: Mathematics




Year 6 Year level plan

Sequence of units	Semester 1		Semester 2	
	Unit 1	Unit 2	Unit 3	Unit 4
Unit topics	Number, Space, Statistics	Number, Algebra, Measurement	Number, Space, Measurement	Number, Algebra, Probability
Unit description	<p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> expand the repertoire of numbers to include rational numbers and the use of integers in practical contexts such as locating points in the four quadrants of a Cartesian plane build fluency of understanding to solve arithmetic problems involving all four operations with natural numbers use combinations of transformations to create tessellating patterns conduct a statistical investigation to determine the mode and range of data, discuss the shape of distributions and communicate findings. 	<p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> solve arithmetic problems involving all four operations with natural numbers of any size extend knowledge of factors and multiples to understand the properties of prime, composite and square numbers to solve problems efficiently use mathematical modelling to solve financial problems, choosing models, representations and calculation strategies and justify solutions use timetables of daily activities to solve practical problems find unknown values in numerical equations involving and combinations of arithmetic operations. 	<p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> solve practical problems using addition and subtraction of fractions with related denominators solve arithmetic problems involving all four operations with decimals use mathematical modelling to solve practical problems, choosing models, representations and calculation strategies, and justify solutions use physical materials to compare the parallel cross-sections of familiar objects including right prisms apply an understanding of area and use multiplicative thinking to establish the formula for the area of a rectangle convert between common metric units of length, mass and capacity (for example: metres and centimetres) begin to formally use deductive reasoning in spatial contexts involving lines and angles. 	<p>Students further develop proficiency and positive dispositions towards mathematics and its use as they:</p> <ul style="list-style-type: none"> solve problems involving fractions, decimals and percentages of a quantity, including percentage discounts and choosing efficient calculation strategies using digital tools where appropriate recognise and use rules that generate growing patterns and number patterns involving natural numbers and rational numbers apply computational thinking to develop algorithms that use rules to generate numbers, such as to find unknown values in patterns recognise that probabilities of an event can be described and compared numerically observe and compare long-run frequencies in repeated chance experiments and simulations.

Assessment	Unit 1	Unit 2	Unit 3	Unit 4
	Assessment task 1.1 — Number and Space	Assessment task 2.1 — Number, Algebra and Mathematical modelling	Assessment task 3.1 — Number and Mathematical modelling	Assessment task 4.1 — Number, Algebra and Computational thinking
Assessable elements	Understanding and Fluency	Understanding and Fluency, Problem solving and Reasoning	Understanding and Fluency, Problem solving and Reasoning	Understanding and Fluency, Problem solving and Reasoning
Range and balance of assessment conventions¹	Technique	Short response	Short response Project	Project
	Mode	<input checked="" type="checkbox"/> Written <input checked="" type="checkbox"/> Visual	<input checked="" type="checkbox"/> Written	<input checked="" type="checkbox"/> Written
	Conditions	<input checked="" type="checkbox"/> Access to resources <input checked="" type="checkbox"/> Individual task Have you considered: <input type="checkbox"/> Time considerations <input type="checkbox"/> Word length <input type="checkbox"/> Accessibility for all students	<input checked="" type="checkbox"/> Access to resources <input checked="" type="checkbox"/> Individual task Have you considered: <input type="checkbox"/> Time considerations <input type="checkbox"/> Word length <input type="checkbox"/> Accessibility for all students	<input checked="" type="checkbox"/> Access to resources <input checked="" type="checkbox"/> Individual task Have you considered: <input type="checkbox"/> Time considerations <input type="checkbox"/> Word length <input type="checkbox"/> Accessibility for all students

Assessment	Unit 1	Unit 2	Unit 3	Unit 4
	Assessment task 1.2 — Statistics and Statistical investigations	Assessment task 2.2 — Measurement	Assessment task 3.2 — Measurement	Assessment task 4.2 — Probability and Probability experiments and simulations
Assessable elements	Problem solving, Problem solving and Reasoning	Understanding and Fluency	Understanding and Fluency	Understanding and Fluency, Problem solving
Range and balance of assessment conventions¹	Technique	Short response Statistical investigation	Short response	Test/Examination
	Mode	<input checked="" type="checkbox"/> Written <input checked="" type="checkbox"/> Practical	<input checked="" type="checkbox"/> Written	<input checked="" type="checkbox"/> Written <input checked="" type="checkbox"/> Practical
	Conditions	<input checked="" type="checkbox"/> Access to resources <input checked="" type="checkbox"/> Individual task Have you considered: <input type="checkbox"/> Time considerations <input type="checkbox"/> Word length <input type="checkbox"/> Accessibility for all students	<input checked="" type="checkbox"/> Access to resources <input checked="" type="checkbox"/> Individual task Have you considered: <input type="checkbox"/> Time considerations <input type="checkbox"/> Word length <input type="checkbox"/> Accessibility for all students	<input checked="" type="checkbox"/> Access to resources <input checked="" type="checkbox"/> Individual task Have you considered: <input type="checkbox"/> Time considerations <input type="checkbox"/> Word length <input type="checkbox"/> Accessibility for all students

¹ For more information about Assessment conventions, navigate to Summative assessment tasks page on the Teaching and Learning Hub, <https://det-school.eq.edu.au/teachingandlearning/assessment/quality-assessment/summative-assessment-tasks>

Aspects of the achievement standard	Semester 1		Semester 2	
	Unit 1	Unit 2	Unit 3	Unit 4
Number and Algebra 				
use integers to represent points on a number line and in the Cartesian plane	Assessment task 1.1			
solve problems using the properties of prime, composite and square numbers		Assessment task 2.1		
order common fractions, giving reasons, and add and subtract fractions with related denominators			Assessment task 3.1	
use all 4 operations with decimals and connect decimal representations of measurements to the metric system			Assessment task 3.2	
solve problems involving finding a fraction, decimal or percentage of a quantity and use estimation to find approximate solutions to problems involving rational numbers and percentages				Assessment task 4.1
use mathematical modelling to solve financial and other practical problems involving percentages and rational numbers, formulating and solving the problem, and justifying choices*		Assessment task 2.1	Assessment task 3.1	
find unknown values in numerical equations involving combinations of arithmetic operations		Assessment task 2.1		
identify and explain rules used to create growing patterns				Assessment task 4.1
create and use algorithms to generate sets of numbers, using a rule				Assessment task 4.1
Measurement and Space 				
interpret and use timetables		Assessment task 2.2		
convert between common units of length, mass and capacity			Assessment task 3.2	
use the formula for the area of a rectangle and angle properties to solve problems			Assessment task 3.2	
identify the parallel cross-section for right prisms			Monitoring strategy	
create tessellating patterns using combinations of transformations	Assessment task 1.1			
locate an ordered pair in any one of the 4 quadrants on the Cartesian plane	Assessment task 1.1			
Statistics and Probability 				
compare distributions of discrete and continuous numerical and ordinal categorical data sets as part of their statistical investigations, using digital tools	Assessment task 1.2			
critique arguments presented in the media based on statistics	Assessment task 1.2			
assign probabilities using common fractions, decimal and percentages				Assessment task 4.2
conduct simulations using digital tools, to generate and record the outcomes from many trials of a chance experiment				Assessment task 4.2
compare observed frequencies to the expected frequencies of the outcomes of chance experiments				Assessment task 4.2

*This aspect of the Achievement standard is assessed over two tasks.

[C2C Resource libraries](#) and resources in [AC V8 C2C units](#) may support teaching and learning of the updated curriculum.