# Australian Curriculum Version 9: Mathematics
## Year 5 Year level plan 2025

| 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 | Students further develop proficiency and positive dispositions towards mathematics and its use as they:<br>• use a range of physical and virtual materials and apply understanding of relationships to convert between forms of numbers, units and spatial representations especially with fractions and decimals<br>• use materials, diagrams or arrays to become efficient with multiplication facts<br>• locate and move positions within a grid coordinate system to pinpoint specific locations<br>• recognise what stays the same and what changes when shapes undergo transformations<br>• use physical materials and dynamic geometric software to perform transformations<br>• plan and conduct a statistical investigation that involves a range of data sets including nominal and ordinal categorical and discrete numerical data; report findings and interpret and compare data representations to make informed decisions. | Students further develop proficiency and positive dispositions towards mathematics and its use as they:<br>• use physical and virtual materials to experiment with factors and multiples<br>• use materials, diagrams or arrays to find unknowns in numerical equations involving multiplication and division<br>• build fluency and understanding of multiplication facts.<br>• develop efficient strategies to multiply and divide<br>• use mathematical modelling to solve financial problems, involving natural numbers and operations, and report on insights and conclusions reached<br>• use estimation strategies to check the reasonableness of calculations when solving problems<br>• apply an understanding of relationships to convert between 12- and 24-hour time when solving practical problems. | Students further develop proficiency and positive dispositions towards mathematics and its use as they:<br>• use common percentages to make proportional comparisons of quantities in everyday contexts<br>• apply understanding of fractions to compare and order them, and solve problems involving addition and subtraction of fractions with the same or related denominators<br>• use mathematical modelling to solve practical problems using natural numbers and operations, and report on insights and conclusions<br>• apply an understanding of relationships between objects and two-dimensional nets by constructing a variety of objects<br>• solve practical problems involving perimeter and area of regular and irregular spaces using appropriate metric units<br>• decide on the appropriate unit when measuring length, mass and capacity of objects<br>• use appropriate instruments such as protractors and digital tools to construct and measure angles in degrees. | Students further develop proficiency and positive dispositions towards mathematics and its use as they:<br>• use place value to order decimals<br>• use algorithms and digital tools to experiment with factors and multiples to identify and explain patterns<br>• use multiplication facts and efficient calculation strategies to build fluency in multiplying large numbers by one and two-digit numbers and divide by single digit numbers<br>• find unknowns in numerical equations involving multiplication and division using materials, diagrams, number sentences and arrays<br>• develop reasoning skills when considering relationships between events and connecting long-term frequency over many trials to the likelihood of an event occurring. |

| Assessment | Unit 1 | Unit 2 | Unit 3 | Unit 4 |
|---|---|---|---|---|
| | Assessment task 1.1 — *Space* | Assessment task 2.1 — *Number 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 | Understanding and Fluency, Problem-solving | Understanding and Fluency, Problem-solving |
| **Range and balance of assessment conventions[1]** — Technique | Short response | Short response Project | Short response Project | Test/Examination |
| Mode | ☒ Written | ☒ Written | ☒ Written | ☒ Written |
| Conditions | ☒ Access to resources<br>☒ Individual task | ☒ Access to resources<br>☒ Individual task | ☒ Access to resources<br>☒ Individual task | ☒ Access to resources<br>☒ Individual task |
| *Schools consider and identify conditions that enable equitable access for all students.* Have you considered: | ☐ Time considerations<br>☐ Word length<br>☐ Accessibility for all students | ☐ Time considerations<br>☐ Word length<br>☐ Accessibility for all students | ☐ Time considerations<br>☐ Word length<br>☐ Accessibility for all students | ☐ Time considerations<br>☐ Word length<br>☐ Accessibility for all students |

| Assessment | Unit 1 | Unit 2 | Unit 3 | Unit 4 |
|---|---|---|---|---|
| | Assessment task 1.2 — *Statistics and Statistical investigations* | | Assessment task 3.2 — *Measurement and Space* | Assessment task 4.2 — *Probability and Probability experiments and simulations* |
| Assessable elements | Understanding and Fluency, Problem-solving and Reasoning | | Understanding and Fluency | Problem-solving and Reasoning |
| **Range and balance of assessment conventions[1]** — Technique | Short response Statistical investigation | | Test/Examination | Probability experiment and simulation |
| Mode | ☒ Written<br>☒ Practical | | ☒ Written<br>☒ Practical | ☒ Written<br>☒ Practical |
| Conditions | ☒ Access to resources<br>☒ Individual task | | ☒ Access to resources<br>☒ Individual task | ☒ Access to resources<br>☒ Individual task |
| *Schools consider and identify conditions that enable equitable access for all students.* Have you considered: | ☐ Time considerations<br>☐ Word length<br>☐ Accessibility for all students | | ☐ Time considerations<br>☐ Word length<br>☐ Accessibility for all students | ☐ Time considerations<br>☐ Word length<br>☐ Accessibility for all students |

| Aspects of the achievement standard | Semester 1 | Semester 2 |
|---|---|---|
| | | |

[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

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| | Unit 1 | Unit 2 | Unit 3 | Unit 4 |
|---|---|---|---|---|
| **Number and Algebra** ☆ | | | | |
| use place value to write and order decimals including decimals greater than one | | | | Assessment task 4.1 |
| express natural numbers as products of factors and identify multiples | | Assessment task 2.1 | | |
| order and represent, add and subtract fractions with the same or related denominators | | | Assessment task 3.1 | |
| represent common percentages and connect them to their fraction and decimal equivalents | | | Assessment task 3.1 | |
| use their proficiency with multiplication facts and efficient calculation strategies to multiply large numbers by one- and two-digit numbers and divide by single-digit numbers | | | | Assessment task 4.1 |
| check the reasonableness of their calculations using estimation | | Assessment task 2.1 | | |
| use mathematical modelling to solve financial and other practical problems, formulating and solving problems, choosing arithmetic operations and interpreting results in terms of the situation* | | Assessment task 2.1 | Assessment task 3.1 | |
| apply properties of numbers and operations to find unknown values in numerical equations involving multiplication and division | | | | Assessment task 4.1 |
| create and use algorithms to identify and explain patterns in the factors and multiples of numbers | | | | Assessment task 4.1 |
| **Measurement and Space** ☆ | | | | |
| choose and use appropriate metric units to measure the attributes of length, mass and capacity, and to solve problems involving perimeter and area | | | Assessment task 3.2 | |
| convert between 12- and 24-hour time | | Monitoring strategy | | |
| estimate, construct and measure angles in degrees | | | Assessment task 3.2 | |
| use grid coordinates to locate and move positions | Assessment task 1.1 | | | |
| connect objects to their two-dimensional nets | | | Assessment task 3.2 | |
| perform and describe the results of transformations and identify any symmetries | Assessment task 1.1 | | | |
| **Statistics and Probability** ☆ | | | | |
| plan and conduct statistical investigations that collect nominal and ordinal categorical and discrete numerical data using digital tools | Assessment task 1.2 | | | |
| identify the mode and interpret the shape of distributions of data in context | Assessment task 1.2 | | | |
| interpret and compare data represented in line graphs | Assessment task 1.2 | | | |
| conduct repeated chance experiments, list the possible outcomes, estimate likelihoods and make comparisons between those with and without equally likely outcomes | | | | 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.

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