AUSTRALIAN CURRICULUM MAP

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MATHEMATICS CURRICULUM	YEAR 4	YEAR 5	YEAR 6	YEAR 7
NUMBER	Solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits **(AC9M4N05)** Develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder **(AC9M4N06)** Choose and use estimation and rounding to check and explain the reasonableness of calculations including the results of financial transactions **(AC9M4N07)** Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems using number sentences and choose efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation **(AC9M4N08)**	Express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another **(AC9M5N02)** Recognise that 100% represents the complete whole and use percentages to describe, represent and compare relative size; connect familiar percentages to their decimal and fraction equivalents **(AC9M5N04)** Solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient calculation strategies and using digital tools where appropriate; check the reasonableness of answers **(AC9M5N06)** Solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction **(AC9M5N07)** Check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context **(AC9M5N08)** Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation **(AC9M5N09)**	Approximate numerical solutions to problems involving rational numbers and percentages, including financial contexts, using appropriate estimation strategies **(AC9M6N08)** Use mathematical modelling to solve practical problems involving natural and rational numbers and percentages, including in financial contexts; formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made **(AC9M6N09)**	Round decimals to a given accuracy appropriate to the context and use appropriate rounding and estimation to check the reasonableness of solutions **(AC9M7N05)** Use mathematical modelling to solve practical problems, involving rational numbers and percentages, including financial contexts; formulate problems, choosing representations and efficient calculation strategies, using digital tools as appropriate; interpret and communicate solutions in terms of the situation, justifying choices made about the representation **(AC9M7N09)**

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MATHEMATICS CURRICULUM	YEAR 4	YEAR 5	YEAR 6	YEAR 7
ALGEBRA	Recall and demonstrate proficiency with multiplication facts up to 10 x 10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator **(AC9M4A02)**	Recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts **(AC9M5A01)**	Recognise and use rules that generate visually growing patterns and number patterns involving rational numbers **(AC9M6A01)**	
SPACE	Create and interpret grid reference systems using grid references and directions to locate and describe positions and pathways **(AC9M4SP02)**	Construct a grid coordinate system that uses coordinates to locate positions within a space; use coordinates and directional language to describe position and movement **(AC9M5SP02)**		
STATISTICS	Analyse the effectiveness of different displays or visualisations in illustrating and comparing data distributions, then discuss the shape of distributions and the variation in the data **(AC9M4ST02)**	Acquire, validate and represent data for nominal and ordinal categorical and discrete numerical variables, to address a question of interest or purpose using software including spreadsheets; discuss and report on data distributions in terms of highest frequency (mode) and shape, in the context of the data **(AC9M5ST01)** Plan and conduct statistical investigations by posing questions or identifying a problem and collecting relevant data; choose appropriate displays and interpret the data; communicate findings within the context of the investigation **(AC9M5ST03)**	Interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables using comparative displays or visualisations and digital tools; compare distributions in terms of mode, range and shape **(AC9M6ST01)** Plan and conduct statistical investigations by posing and refining questions or identifying a problem and collecting relevant data; analyse and interpret the data and communicate findings within the context of the investigation **(AC9M6ST03)**	Acquire data sets for discrete and continuous numerical variables and calculate the range, median, mean and mode; make and justify decisions about which measures of central tendency provide useful insights into the nature of the distribution of data **(AC9M7ST01)**

AUSTRALIAN CURRICULUM MAP

MATHEMATICS CURRICULUM	YEAR 4	YEAR 5	YEAR 6	YEAR 7
PROBABILITY	Describe possible everyday events and the possible outcomes of chance experiments and order outcomes or events based on their likelihood of occurring; identify independent or dependent events **(AC9M4P01)** Conduct repeated chance experiments to observe relationships between outcomes; identify and describe the variation in results **(AC9M4P02)**	List the possible outcomes of chance experiments involving equally likely outcomes and compare to those which are not equally likely **(AC9M5P01)** Conduct repeated chance experiments including those with and without equally likely outcomes, observe and record the results; use frequency to compare outcomes and estimate their likelihoods **(AC9M5P02)**	Recognise that probabilities lie on numerical scales of 0 – 1 or 0% – 100% and use estimation to assign probabilities that events occur in a given context, using common fractions, percentages and decimals **(AC9M6P01)** Conduct repeated chance experiments and run simulations with an increasing number of trials using digital tools; compare observations with expected results and discuss the effect on variation of increasing the number of trials **(AC9M6P02)**	Identify the sample space for single-stage events; assign probabilities to the outcomes of these events and predict relative frequencies for related events **(AC9M7P01)**

AUSTRALIAN CURRICULUM MAP

GENERAL CAPABILITIES	YEAR 3&4 STUDENTS	YEAR 5&6 STUDENTS	YEAR 7&8 STUDENTS
CRITICAL AND CREATIVE THINKING	Consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option. Put ideas into action by predicting an outcome, trialling options and assessing their effectiveness. Draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made. Select, describe and reflect on the thinking and learning strategies and processes used when completing activities and drawing conclusions.	Consider alternatives by challenging or creatively adjusting existing ideas in situations where current approaches do not work and recommend a preferred option. Put ideas into action by predicting potential or future outcomes and systematically testing a range of options. Draw conclusions and make choices when completing tasks, using discipline knowledge to provide reasons and evaluate arguments for choices made. Identify and reflect on thinking and assumptions when completing activities or drawing conclusions. Invite alternative perspectives or feedback in order to improve future outcomes.	Consider alternatives by creatively adapting ideas when information is limited or conflicting and recommend a preferred option. Put ideas into action by making predictions, testing and evaluating options, and reconsidering approaches in complex or unfamiliar situations. Draw conclusions and make choices when completing tasks by connecting evidence from within and across discipline areas to provide reasons and evaluate arguments for choices made. Reflect on the thinking and processes used when completing activities or drawing conclusions. Invite alternative perspectives and feedback, and consider reasonable criticism to adjust thinking and approaches.
PERSONAL AND SOCIAL CAPABILITY	Explain the influence that their own behaviour has on the emotional responses of others. Manage and moderate emotions in familiar contexts, using provided strategies. Demonstrate perseverance when faced with challenges, adapting approaches based on successes and learning from setbacks and failure. Apply verbal and non-verbal communication skills when responding to others. Perform designated roles within groups, appreciating everyone's contributions to a shared outcome. Apply a range of conflict resolution strategies to negotiate positive outcomes in a range of contexts.	Analyse the influence of different factors and situations on their emotional responses. Manage personal factors influencing emotions in a range of contexts including learning. Adapt approaches to tasks to support perseverance when faced with challenging or unfamiliar tasks. Apply skills to address factors that influence verbal and non-verbal communication. Coordinate contributions of group members, suggesting improvements to ways of working and collaborative outputs Practise different strategies to prevent, defuse or resolve conflict, assessing the causes and effects of conflict.	Evaluate how emotional responses influence behaviour and consider the consequences of these responses. Use and refine strategies that contribute to regulating behaviour and achieving learning goals. Demonstrate communication skills in a range of contexts, responding to the enablers of, and barriers to, effective verbal and non-verbal communication. Appreciate diverse perspectives in a range of collaborative contexts, and demonstrate negotiation skills to improve ways of working and outputs.

AUSTRALIAN CURRICULUM MAP

GENERAL CAPABILITIES	YEAR 3&4 STUDENTS	YEAR 5&6 STUDENTS	YEAR 7&8 STUDENTS
ETHICAL UNDERSTANDING	Explain how emotions can affect behaviour and decision-making in different situations. Describe decision-making processes with reference to ethical perspective and values.	Describe how ethical perspectives or approaches to ethical issues may vary in different situations.	Consider how values and beliefs influence approaches to ethical issues, and analyse how these affect outcomes.
NUMERACY	Students develop numeracy across all years at developmentally appropriate stages dependent on the individual student, across the following elements and sub-elements: **Number sense and algebra** • Number and place value • Counting processes • Additive strategies • Multiplicative strategies • Interpreting fractions **Statistics and probability** • Understanding chance • Interpreting and representing data		