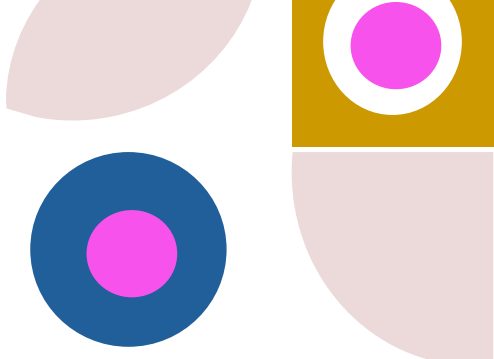




2026

↘ F-10 V9 AUSTRALIAN
CURRICULUM

**FINANCIAL
CAPABILITY
THROUGH
MATHEMATICS**

AN EVIDENCE-
INFORMED
CURRICULUM GUIDE
FOR AUSTRALIAN
SCHOOLS



Copyright and publication information

Financial Capability Through Mathematics
An Evidence-Informed Curriculum Guide for Australian Schools

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Acknowledgements

This guide draws upon research from developmental psychology, consumer socialisation, financial capability and mathematics education to support the development of financial understanding across the school years. It has been developed to assist educators in identifying authentic opportunities to integrate financial contexts within the Australian Curriculum: Mathematics.

The author acknowledges the researchers, educators and curriculum authorities whose work has informed the evidence base underpinning this guide, including the Australian Curriculum, Assessment and Reporting Authority (ACARA), the School Curriculum and Standards Authority (Western Australia), and the broader international research community.

About the author

Tracey West, PhD, is a financial literacy educator, researcher and author with expertise in financial capability, household finance and mathematics education. As the founder of Marshmallow Money Australia, she develops evidence-informed resources that help educators, families and young people build the knowledge, skills and confidence needed to make informed financial decisions throughout life.



Every day, young Australians make financial decisions, whether they realise it or not. They choose how to spend birthday money, decide whether to save for something they want, compare prices online, or watch adults make decisions about household finances. As they grow older, these decisions become increasingly complex, influencing their education, employment, health and long-term wellbeing.

Schools have an important role to play in preparing students for these decisions. Mathematics provides a natural and authentic context for developing financial capability because it equips students with the knowledge and reasoning needed to interpret information, solve problems, evaluate alternatives and make informed choices. When financial contexts are thoughtfully integrated into mathematics learning, students can see the relevance of mathematical concepts while developing practical skills they will use throughout their lives.

Despite the recognised importance of financial capability, many teachers report that they have limited access to curriculum-aligned resources that demonstrate how financial contexts can be incorporated into mathematics teaching. This guide has been developed to address that need by mapping authentic financial learning opportunities to the Australian Curriculum: Mathematics (Version 9.0), with additional links to the Western Australian Curriculum: Financial Mathematics.

The curriculum mapping presented in this guide is underpinned by an evidence-informed synthesis of research from developmental psychology, consumer socialisation and financial capability. It recognises that financial understanding develops progressively throughout childhood and adolescence and that learning experiences should be aligned with students' cognitive development and mathematical knowledge. Rather than treating financial concepts as an additional topic, this guide demonstrates how they can be explored through meaningful mathematical investigations that remain faithful to the intent of the curriculum.

Importantly, this guide does not seek to make every mathematics lesson about money. Instead, it identifies authentic opportunities where financial contexts enrich mathematical learning while remaining faithful to the intent of the curriculum. Financial capability is viewed not simply as knowledge about money, but as the ability to apply mathematical reasoning, critical thinking and informed judgement to everyday financial decisions.

For each year level from Foundation to Year 10, the guide identifies curriculum descriptors that naturally lend themselves to financial contexts, provides practical teaching ideas and classroom activities, and recommends relevant Marshmallow Money resources to support learning. The intention is to provide teachers with a practical, evidence-informed reference that complements their professional judgement and curriculum planning.

It is my hope that this guide will support educators in helping young people develop the confidence, knowledge and mathematical understanding needed to make informed financial decisions throughout their lives.

Tracey West, PhD
Founder, Marshmallow Money Australia
2026



Why financial capability matters

Financial capability is increasingly recognised as an essential life skill. Every day, people make decisions about earning, spending, saving, borrowing, investing and protecting their money. These decisions influence not only financial wellbeing, but also educational opportunities, health, housing, relationships and overall quality of life.

Although many financial decisions are made in adulthood, the knowledge, attitudes and behaviours that underpin financial capability begin developing much earlier. Young people form habits and beliefs about money through their experiences at home, school and in the wider community. Schools therefore play an important role in helping students develop the confidence and judgement needed to navigate an increasingly complex financial world.

Financial capability extends beyond understanding financial products or performing calculations. It involves applying knowledge, reasoning critically, evaluating information, managing risk and making informed decisions that reflect personal goals and circumstances. These capabilities are strengthened when students encounter authentic financial situations that require mathematical thinking, problem-solving and reflection.

Research consistently shows that financial capability is associated with improved financial wellbeing, greater confidence in managing money and better long-term financial outcomes. While financial education alone cannot overcome every social or economic challenge, it provides young people with valuable tools that support lifelong decision-making.



Financial capability through mathematics

Financial capability is not a separate area of learning that sits alongside mathematics. Rather, it is developed through the mathematical knowledge, skills and reasoning that students use to make informed decisions in everyday life.

Every financial decision involves mathematics. Whether comparing prices at the supermarket, calculating a discount, planning a budget, interpreting a payslip, estimating the cost of a purchase or evaluating the long-term growth of an investment, individuals rely on mathematical thinking to understand information, weigh alternatives and make informed choices.

The Australian Curriculum reflects this close relationship. Across the primary and secondary years, students develop number sense, proportional reasoning, measurement, algebra, statistics and mathematical modelling through authentic problem-solving. These same capabilities underpin financial literacy. As students progress through school, they move from recognising coins and notes to interpreting percentages, comparing financial products, analysing data and modelling long-term financial decisions.

Teaching mathematics through financial contexts also enhances learning. Authentic situations provide a meaningful purpose for mathematical concepts that might otherwise seem abstract or disconnected from students' lives. Rather than asking students to solve calculations in isolation, financial contexts encourage them to explain their reasoning, evaluate alternatives, justify decisions and communicate their thinking.

Importantly, financial capability is not about memorising financial facts or teaching students how to invest, borrow or manage complex financial products. It is about developing the habits of mathematical thinking that support sound judgement. Students learn to ask questions, estimate, compare options, interpret evidence, recognise risk and evaluate consequences. These are capabilities that extend well beyond money and contribute to confident decision-making throughout life.



The development of financial understanding

Financial capability develops gradually throughout childhood and adolescence. Like literacy and numeracy, children's understanding of money becomes increasingly sophisticated as their cognitive, mathematical and social skills mature. Research from developmental psychology, consumer socialisation, economic psychology and financial capability consistently demonstrates that young people progress through identifiable stages as they learn to recognise money, understand value, make decisions and navigate increasingly complex financial concepts.

While several researchers have proposed developmental models within their own fields of study, there is currently no single, universally accepted framework describing the progression of financial learning from early childhood through to late adolescence. The developmental progression presented below is an evidence-informed synthesis of the research literature, drawing on seminal work by Berti and Bombi (1981), John (1999), Webley and Bonn (2000), together with more recent research on financial capability and socioeconomic cognition. It is intended as a practical framework for educators, illustrating how financial understanding typically develops throughout the school years.

Developmental progression of financial understanding

Approximate age	Developmental stage	Typical financial understanding
3–4 years	Awareness	Recognises money as an object used to buy things and participates in pretend play involving money.
4–5 years	Early exchange	Understands that money is exchanged for goods and services but has limited understanding of value.
5–7 years	Value recognition	Recognises that different coins and notes have different values and begins counting money and comparing amounts.
7–9 years	Practical transactions	Understands simple purchases, saving goals, change and basic budgeting.
9–11 years	Financial reasoning	Begins understanding trade-offs, delayed gratification, banks and simple financial planning.
11–13 years	Systems thinking	Develops an understanding of income, taxation, interest, borrowing and the broader financial system.
13–15 years	Financial independence	Applies financial knowledge to increasingly realistic situations involving digital payments, consumer rights and financial decision-making.
15–18 years	Financial capability	Evaluates financial products and makes informed decisions about work, saving, investing, credit, insurance and long-term financial planning.

This framework provides a practical lens for understanding how financial capability evolves throughout childhood and adolescence. It also reinforces the importance of introducing financial concepts progressively, ensuring that learning experiences are aligned with students' cognitive development and mathematical understanding. The Australian Mathematics Curriculum supports this progression by providing opportunities for students to apply mathematical knowledge in increasingly authentic financial contexts as they move from Foundation to Year 10.

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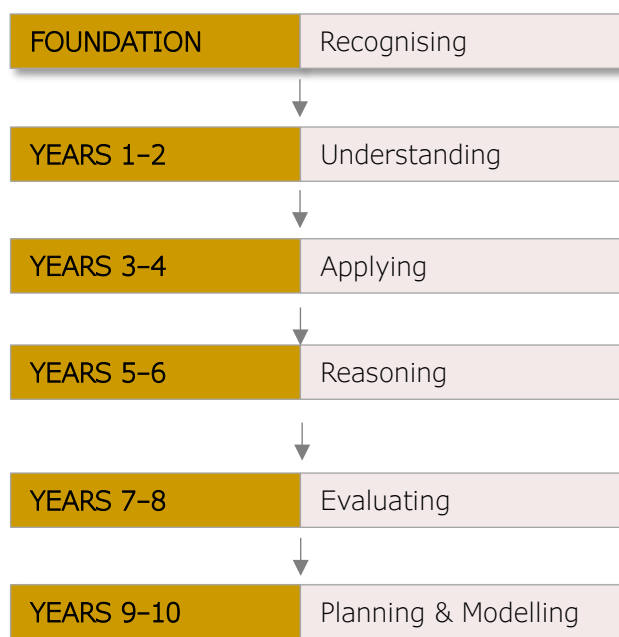
Financial capability across the Australian Mathematics Curriculum

The evidence-informed developmental progression presented in the previous section describes how financial understanding typically develops throughout childhood and adolescence.

The Australian Mathematics Curriculum provides a complementary pathway by progressively introducing the mathematical knowledge, skills and reasoning that underpin financial capability.

Together, these two perspectives provide a coherent roadmap for financial learning. While the developmental framework explains how students' understanding typically evolves over time, the curriculum identifies the mathematical concepts and skills that support this progression. The table below highlights the key financial learning milestones from Foundation to Year 10, demonstrating how mathematical learning becomes increasingly connected to authentic financial situations.

Year level	Curriculum milestone	Learning progression
Foundation	Mathematical foundations for future financial learning.	Foundations
Year 1	Connecting mathematics with familiar money experiences.	Early application
Year 2	Applying mathematics to simple financial situations.	Practical application
Year 3	Money becomes an explicit curriculum focus.	Money concepts
Year 4	Decimal notation and budgeting.	Financial representation
Year 5	Fractions, decimals and percentages in financial contexts.	Financial reasoning
Year 6	Multi-step financial problem-solving.	Financial problem-solving
Year 7	Analysing financial situations mathematically.	Financial analysis
Year 8	Evaluating payment methods and consumer choices.	Consumer decision-making
Year 9	Income, taxation and simple interest.	Personal finance
Year 10	Compound interest, superannuation and long-term planning.	Financial capability





The Marshmallow Money Australia Philosophy

Marshmallow Money Australia was created from a simple belief: financial capability is one of the most important life skills young people can develop. Every day, people make decisions about earning, spending, saving, borrowing, investing and planning for the future. Helping students develop the confidence and capability to make informed decisions begins long before they enter adulthood. Through authentic mathematical learning experiences, Marshmallow Money supports educators to connect classroom learning with the financial situations students will encounter throughout their lives.

The Marshmallow Money Principles

Marshmallow Money Australia is built on six principles that guide the design of every resource:



Mathematics is a life skill

Mathematics extends far beyond the classroom. Whether comparing prices, planning a budget, calculating discounts, understanding interest or evaluating financial choices, mathematics underpins many everyday decisions. Marshmallow Money demonstrates how mathematical knowledge can be applied in practical ways that prepare students for life beyond school.



Authentic learning

Students learn mathematics most effectively when they understand its purpose. Authentic financial contexts provide meaningful opportunities to apply mathematical concepts to real-world situations, helping students connect classroom learning with everyday life. Rather than learning mathematics as a collection of isolated procedures, students learn to use mathematics to solve problems, evaluate options and make informed decisions.



Financial capability, not just financial literacy

Understanding financial concepts is important, but knowledge alone is not enough. Marshmallow Money focuses on developing financial capability; the combination of knowledge, skills, behaviours and confidence that enables young people to apply what they know in real-life situations. Our resources encourage students to think critically, make informed choices and develop positive financial habits that support lifelong wellbeing.



Behaviour influences financial decisions

Financial decisions are not based on mathematics alone. They are also shaped by goals, habits, emotions, social influences and personal values. Drawing on insights from behavioural economics and psychology, Marshmallow Money encourages students to reflect on why people make financial decisions and how thoughtful planning can lead to better outcomes.



Evidence-informed teaching

Our resources are informed by contemporary research in mathematics education, financial capability and learning science. We believe effective financial education combines authentic contexts with rich mathematical thinking, discussion, reasoning and reflection. The accompanying Research Insight Library provides teachers with practical, evidence-informed summaries that connect research with classroom practice.



Learning extends beyond the classroom

Young people develop financial capability through experiences at home, at school and in their communities. Our resources encourage students to discuss financial ideas with their families, apply their learning in everyday situations and recognise the relevance of mathematics in the world around them. By strengthening these connections, learning becomes more meaningful, engaging and enduring.



How Marshmallow Money Australia supports teaching financial mathematics

The Marshmallow Money resources have been developed to help teachers connect mathematics learning with authentic financial situations. Rather than introducing additional curriculum content, the resources provide meaningful contexts through which students can apply the mathematical knowledge, skills and reasoning described in the Australian Curriculum: Mathematics.

Each year level in this guide includes a **Marshmallow Money Connections** section that identifies the most relevant Marshmallow Money resources for the curriculum being taught. These recommendations provide teachers with practical suggestions for incorporating authentic financial contexts into mathematics lessons and include specific page references, worksheet recommendations and classroom connections aligned to the curriculum.

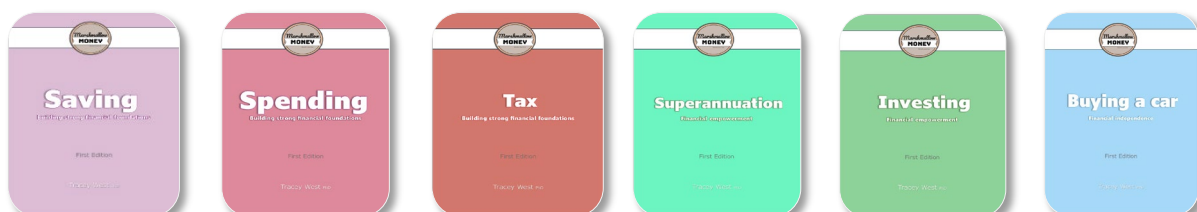
The recommendations draw on the full Marshmallow Money collection, including the student books:

- Saving
- Spending
- Tax
- Superannuation
- Investing
- Buying a Car

They are complemented by **Educator Support Packs**, which include worksheets, quizzes, crosswords and wordfinders designed to reinforce mathematical understanding, develop financial reasoning and strengthen financial capability through engaging classroom activities.

Although the current Marshmallow Money student resources are primarily designed for upper primary and secondary students, this guide maps the Foundation to Year 10 Mathematics curriculum. Financial capability develops progressively over many years, beginning with the mathematical foundations established in the early primary years. Concepts such as counting, comparing, recognising patterns and solving problems provide the basis for the increasingly sophisticated financial reasoning developed throughout the later years of schooling.

By connecting mathematics with authentic financial contexts across all year levels, Marshmallow Money supports teachers in developing not only mathematical proficiency but also the confidence, judgement and financial capability students need to make informed financial decisions throughout their lives.





Marshmallow Money curriculum alignment summary

This section provides an overview of how the Marshmallow Money resources support the development of financial capability and mathematical understanding across Foundation to Year 10.

Matrix 1: Year level alignment

Resource	F-2	3-4	5-6	7	8	9	10
Saving	•	••	•••	••	••	••	••
Spending	•	••	•••	•••	•••	••	•
Tax			•	•••	••	•••	••
Superannuation				•	••	•••	•••
Investing					•	••	•••
Buying a Car				••	•••	•••	•••

Matrix 2: Mathematical concepts alignment

Mathematical Concept	Saving	Spending	Tax	Super	Investing	Buying a Car
Money concepts	•••	•				
Saving goals	•••	•				
Budgeting	••	•••	•			•
Consumer decision-making	••	•••	•	•	•	•••
Percentages	•	••	•••	••	•••	••
GST		•	•••			
Income and payslips			•••	•		
Interest	•••			••	•	•
Compound growth	••			•••	•••	
Inflation	•••	•		•	••	
Risk and return				••	•••	
Superannuation			•	•••	•	
Borrowing	•					•••
Depreciation						•••
Insurance						•
Financial modelling	•	•	•	•••	•••	••

Legend:

- Introduced
- Developed
- Strong alignment



How to use this guide

This guide has been developed to help teachers integrate authentic financial contexts into mathematics teaching using the Australian Mathematics Curriculum (Version 9.0). Whether you are planning a single lesson, a unit of work or a whole-school approach to financial capability, the guide provides curriculum-aligned teaching ideas, classroom activities, assessment suggestions and evidence-informed strategies to support high-quality mathematics learning.

How the guide is organised

The guide is organised by year level from Foundation to Year 10. Each year level begins with an overview, highlighting:

- the relevant Australian Curriculum content descriptors
- the key mathematical concepts
- authentic financial contexts

Detailed planning pages then follow for each Australian Curriculum v.9 descriptor. Each curriculum mapping includes the following features:

Section	Purpose
Teaching focus	Summarises the intent of the curriculum descriptor and the key mathematical ideas.
What students are learning	Explains the mathematical knowledge, skills and understandings being developed.
Why this matters	Connects the mathematics to authentic financial situations and everyday decision-making.
Common misconceptions	Highlights misunderstandings that may arise during learning.
Real-world connections	Demonstrates where students encounter these concepts beyond the classroom.
Professional practice	Provides evidence-informed teaching strategies to support effective mathematics instruction.
Classroom activities	Offers practical learning experiences that encourage reasoning, discussion and problem-solving.
Key vocabulary	Identifies important mathematical and financial terminology.
Assessment ideas	Suggests ways students can demonstrate their understanding.
Differentiation	Suggests ways to support or extend students learning.

Western Australian curriculum

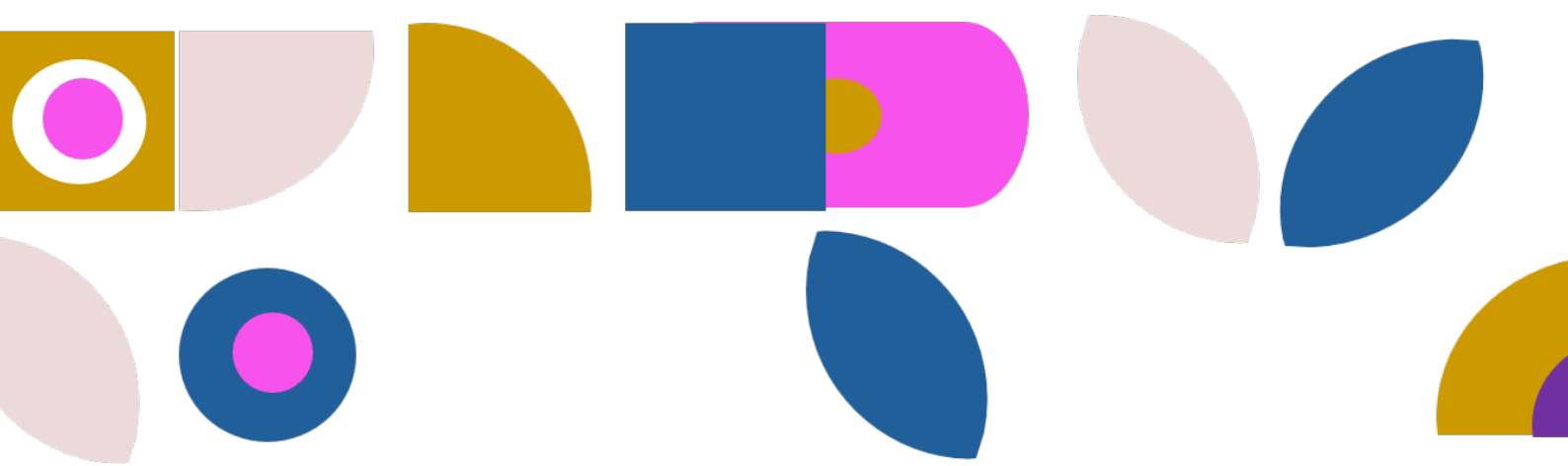
At the end of each year level, the guide includes the relevant Western Australian Financial Mathematics content descriptors, accompanied by brief explainers that summarise the intent of each descriptor. These additions support teachers in Western Australia while also providing additional financial learning contexts that may be useful for educators in other jurisdictions.

Flexible for your classroom

This guide is intended to support professional judgement rather than prescribe a particular teaching sequence. Teachers are encouraged to adapt the suggested learning experiences to suit their students, school context and curriculum planning while maintaining alignment with the Australian Curriculum and local requirements.

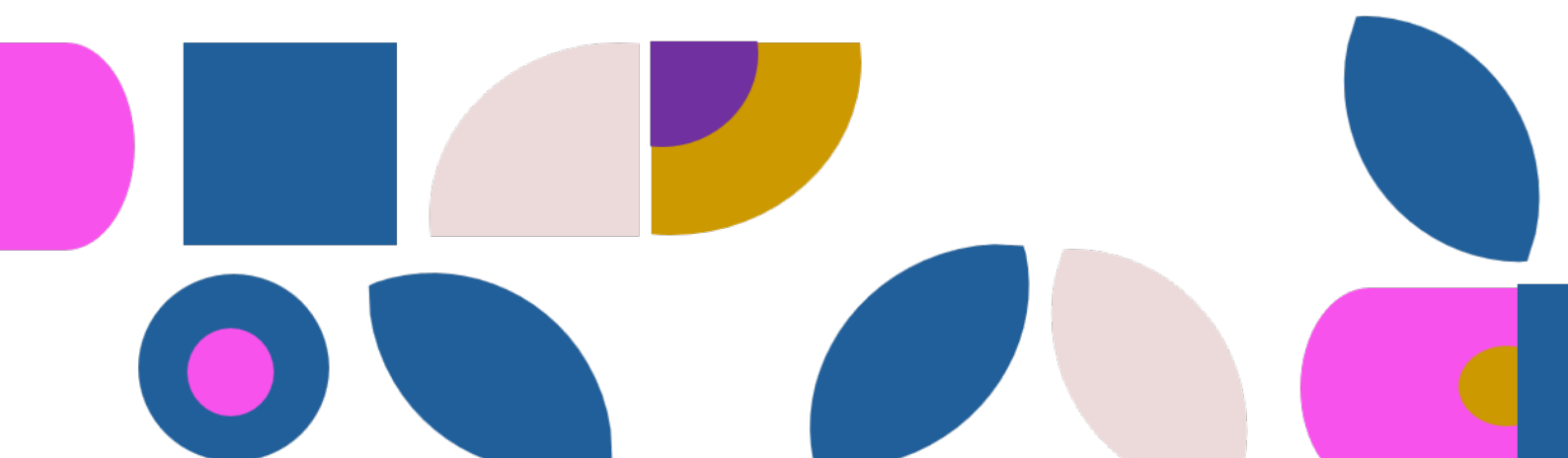
Evidence-informed throughout

Throughout the guide, curriculum advice is informed by contemporary research in mathematics education, financial capability and learning science. Rather than presenting financial contexts as an "add-on" to mathematics, the guide demonstrates how authentic financial situations can deepen mathematical understanding while helping students develop the confidence and judgement needed to make informed financial decisions.



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Foundation Year

The Foundation Mathematics curriculum introduces the essential mathematical concepts that underpin later financial learning. While students are not expected to explore complex financial concepts, they begin developing the number sense, reasoning and problem-solving skills that support future understanding of money, value and decision-making.

Through counting, comparing, representing quantities, solving simple addition and subtraction problems, and collecting and organising data, students build confidence with mathematical ideas that will later be applied to authentic financial situations. Everyday experiences such as sharing, exchanging, comparing quantities and making simple choices provide meaningful contexts for developing these foundational skills.

Curriculum milestone

Students begin developing the mathematical foundations that underpin future financial capability. Through counting, comparing, representing quantities and organising information, they build the number sense and reasoning skills needed for later financial learning.

Foundation Year Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9MFN01	Recognising, representing and ordering numbers to at least 20.	Counting and comparing money amounts, recognising more and less, and building number sense for future money concepts.
AC9MFN05	Representing practical situations involving quantifying, equal sharing, adding to and taking away from collections.	Using simple buying, selling, saving and sharing scenarios to develop early addition and subtraction skills.
AC9MFST01	Collecting, sorting and comparing categorical data.	Investigating simple financial preferences and choices through class surveys and organising the results.

Looking ahead

In Year 1, these foundational skills are extended as students work with larger numbers, develop greater confidence with addition and subtraction, and begin applying their mathematical understanding to increasingly authentic money contexts. Everyday experiences such as recognising Australian coins, calculating simple amounts and making purchasing decisions help students strengthen both their mathematical knowledge and their developing financial capability.

Although financial literacy in the early years is centred on play, exploration and familiar experiences, these first mathematical concepts provide the building blocks for the more sophisticated financial learning that follows throughout primary and secondary school. By developing confidence with numbers and problem-solving from the very beginning, students are well prepared to become informed and capable financial decision-makers in the years ahead.



AC9MFN01

Name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals

Teaching focus

Students develop early number sense by naming, representing and ordering numbers to at least 20. Through hands-on activities and familiar contexts, they learn to recognise quantities, compare amounts and connect numerals with real-world experiences, including simple money concepts.

What students are learning

Students count, represent and order numbers using a variety of physical materials, pictures and numerals. They compare collections, identify which groups have more or less, and build confidence recognising and representing quantities. Everyday money experiences, such as counting coins during pretend play or recognising different amounts, provide meaningful opportunities to apply these foundational number skills.

Why this matters

Understanding numbers is the foundation of financial capability. Before children can save, spend or make choices about money, they need to recognise quantities, compare amounts and understand that numbers represent value. These early mathematical experiences provide the building blocks for future financial learning.

Common misconceptions

- Confusing the size of an object with the number of objects.
- Believing that a larger coin is always worth more than a smaller coin.
- Counting the same object more than once or skipping objects when counting.
- Confusing numerals with the quantities they represent.

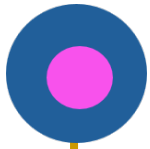
Real-world connections

Young children encounter numbers and money in everyday situations, such as shopping with family, saving coins in a money box or choosing between different items. Recognising and comparing quantities helps them begin to understand the role of money in everyday life.

Professional practice

Provide frequent opportunities for students to explore numbers using concrete materials, role play and everyday contexts. Simple money experiences should focus on recognising and counting quantities rather than calculating values. Encourage mathematical language through discussion, questioning and collaborative play.

Note: The F-2 Mathematics curriculum is undergoing iterative review in 2026. The content descriptors may change. It is expected that this guide will be revised and republished in 2027 to reflect the revisions.



Classroom Implementation



Classroom activities

- Count collections of play coins, counters or tokens and match each collection to the correct numeral.
- Order groups of objects or coins from the smallest to the largest quantity and explain the reasoning.
- Set up a pretend shop where students count the number of coins needed to "buy" classroom items.
- Compare two collections of objects or coins and identify which has more, less or the same number.
- Read a picture book involving shopping or money and discuss how numbers are used to count, compare and exchange items.

Building mathematical and financial language

- number
- numeral
- count
- quantity
- compare
- order
- more
- less
- equal
- coin
- money
- value

Assessment opportunities

- Count collections accurately to at least 20.
- Match quantities to the correct numerals.
- Order numbers from smallest to largest.
- Compare collections using mathematical language such as *more*, *less* and *equal*.
- Recognise that different collections can be compared by quantity.
- Apply counting skills during simple money-based role-play activities.

Differentiation

Support

- Use concrete materials such as counters, play coins, number cards and ten frames to model quantities.
- Encourage one-to-one correspondence by moving each object as it is counted.

Extension

- Challenge students to represent the same quantity using different combinations of objects or coins.
- Ask students to explain and justify how they know one collection has more, less or the same number as another.



AC9MFN05

Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies

Teaching focus

Students represent practical situations involving addition, subtraction and quantification using physical and virtual materials. Through familiar everyday contexts, including simple money experiences, they develop counting and subitising strategies to solve problems and explain their mathematical thinking.

What students are learning

Students represent and solve practical addition and subtraction situations using concrete materials, digital tools and visual representations. They use counting and subitising strategies to determine quantities, combine collections and identify how quantities change. Everyday money contexts, such as pretend shopping and exchanging coins, provide meaningful opportunities to apply these foundational mathematical skills.

Why this matters

Understanding how quantities increase, decrease and combine is an important foundation for financial capability. Everyday experiences such as buying an item, receiving change or deciding whether there are enough coins to make a purchase help children connect mathematics with real-life situations. These early experiences support later learning about saving, spending and making financial decisions.

Common misconceptions

- Counting the same object more than once or missing objects when counting.
- Relying on counting every object rather than recognising small quantities through subitising.
- Assuming that having more coins always means having more money.
- Confusing the number of objects with the value they represent.

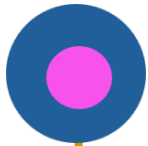
Real-world connections

Children regularly use addition and subtraction when playing shop, saving coins, sharing collections or making simple choices about purchases. These familiar experiences help them recognise that mathematics is an important part of everyday life and forms the basis of future financial understanding.

Professional practice

Provide frequent opportunities for students to represent mathematical situations using concrete materials, role-play and digital manipulatives. Encourage students to explain their strategies and recognise when subitising is more efficient than counting. Money contexts should be used to strengthen number concepts through authentic, age-appropriate experiences rather than formal financial calculations.

Note: The F-2 Mathematics curriculum is undergoing iterative review in 2026. The content descriptors may change. It is expected that this guide will be revised and republished in 2027 to reflect the revisions.



Classroom Implementation



Classroom activities

- Create a classroom shop where students combine groups of coins or tokens to "buy" familiar items.
- Act out simple shopping stories by adding to or taking away collections of play coins, counters or objects.
- Use dot cards, ten frames or coin patterns to encourage students to subitise small quantities before counting.
- Give students a small collection of play coins and ask whether they have enough to buy an item with a given price.
- Use interactive digital manipulatives to model simple addition and subtraction situations involving money and everyday objects.

Building mathematical and financial language

- add
- subtract
- count
- subitise
- quantity
- total
- more
- less
- enough
- coin
- money
- exchange

Assessment opportunities

- Represent simple addition and subtraction situations using concrete or virtual materials.
- Use counting and subitising strategies to determine quantities.
- Combine and separate collections accurately to solve practical problems.
- Determine whether there is enough money to make a simple purchase.
- Explain how quantities change when objects are added or taken away.
- Use appropriate mathematical and financial vocabulary when describing solutions.

Differentiation

Support

- Provide concrete materials such as play coins, counters and ten frames to model each problem.
- Begin with small quantities that can be subitised before progressing to larger collections that require counting.

Extension

- Challenge students to solve the same problem using more than one strategy, such as subitising, counting on or using a ten frame.
- Ask students to create and explain their own shopping story involving addition or subtraction using play money.



AC9MFST01

Collect, sort and compare data represented by objects and images in response to given investigative questions that relate to familiar situations

Teaching focus

Students collect, sort and compare data represented by objects and images to answer given investigative questions. Through familiar, hands-on experiences, they develop early data literacy by organising information, identifying similarities and differences, and communicating simple observations.

What students are learning

Students respond to given investigative questions by collecting, sorting and comparing data represented by objects and images. They organise information into categories, compare groups and discuss their observations using appropriate mathematical language. Familiar contexts, including simple consumer choices and classroom preferences, provide meaningful opportunities to develop these foundational data skills.

Why this matters

Making informed choices often begins with collecting and comparing information. While Foundation students are not making complex financial decisions, they can begin to recognise that information can be organised to answer questions and compare different options. These early experiences lay the foundations for interpreting information and making evidence-based decisions in later years.

Common misconceptions

- Sorting objects or images into incorrect categories.
- Miscounting the number of objects or pictures in each group.
- Assuming everyone will make the same choice.
- Drawing conclusions without considering all of the collected information.

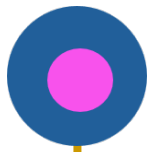
Real-world connections

Children encounter data whenever they make choices or compare options, such as selecting a snack, choosing a game or deciding what to buy with a classroom token. Representing these choices using objects and images helps them recognise that mathematics can be used to answer questions and compare information.

Professional practice

Use familiar contexts and concrete materials to support students' understanding of data. Encourage students to discuss how objects and images can represent information and guide them in comparing groups using mathematical language. Consumer contexts should remain simple, meaningful and connected to students' everyday experiences.

Note: The F-2 Mathematics curriculum is undergoing iterative review in 2026. The content descriptors may change. It is expected that this guide will be revised and republished in 2027 to reflect the revisions.



Classroom implementation



Classroom activities

- Conduct a class survey about what students would choose to do with one classroom token (save it, spend it or share it) and represent the results using objects or picture cards.
- Sort picture cards into needs and wants, then compare the number of items in each category.
- Investigate favourite classroom rewards or inexpensive items and display the results using objects, pictures or a simple pictograph.
- Ask students to choose an item they would like to save for and represent the class choices using pictures, discussing which options are the most and least popular.
- Create a "shopping choices" display where students vote for one item they would buy with a set number of tokens and compare the results as a class.

Building mathematical and financial language

- data
- collect
- sort
- compare
- category
- question
- investigate
- more
- less
- most
- least
- choice

Assessment opportunities

- Collect and sort data represented by objects and images.
- Organise information into appropriate categories.
- Compare groups using mathematical language such as *more*, *less*, *most* and *least*.
- Respond to investigative questions using the collected data.
- Explain simple observations based on the information collected.
- Represent data accurately using objects, images or picture cards.

Differentiation

Support

- Provide pre-sorted picture cards or objects and guide students in classifying them into two clear categories.
- Model the language used to compare groups and encourage students to describe what they notice using sentence starters.

Extension

- Encourage students to suggest their own investigative question and collect data from a small group of classmates.
- Challenge students to explain why one category has more or fewer responses and identify patterns or trends in the data.

WA Financial Mathematics Curriculum

Explore making purchases using coins, notes and debit cards

Students explore how money is used to purchase goods and services through everyday play-based experiences. They recognise Australian coins and notes, become familiar with debit cards as another way to pay, and participate in simple buying and selling activities using real or play money. These experiences help students understand that money can be exchanged for goods and services while developing early number sense and financial awareness.



Marshmallow Money Connections

The Marshmallow Money series is designed primarily for students in Years 5–10. While there are currently no Foundation-specific student books or worksheets, the ideas introduced in the WA content descriptor provide important foundations for the financial capability developed throughout the series.

Teachers may wish to introduce simple classroom discussions about:

- recognising Australian coins and notes
- understanding that money is exchanged for goods and services
- identifying different ways people pay, including cash and debit cards
- participating in play-based shopping and role-play activities.

These experiences establish the early concepts that are explored in greater depth in **Saving** and **Spending** in the upper primary years.

Year 1

In Year 1, students build on the mathematical foundations established in Foundation by developing greater confidence with number, operations and data. They begin applying these skills in familiar everyday contexts, including simple money experiences that help connect mathematics with the world around them.

Students strengthen their understanding of counting, addition and subtraction, comparison and representation while solving practical problems using concrete materials and visual models. Familiar situations such as recognising Australian coins, comparing prices, making simple purchases and collecting information about preferences provide meaningful opportunities for students to apply mathematical thinking in age-appropriate financial contexts.

Although financial learning at this stage remains play-based and exploratory, students are beginning to recognise that mathematics supports everyday choices involving money. These experiences continue to build the foundations of financial capability, preparing students for increasingly sophisticated financial learning throughout the primary and secondary years.

Curriculum milestone

Students begin connecting mathematics with familiar money experiences. They use counting, addition, subtraction, measurement and data to explore simple financial situations such as recognising coins, comparing prices and making everyday choices.

Year 1 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M1N01	Recognising, representing and ordering numbers to at least 120.	Recognising and comparing amounts of money, counting collections of coins and understanding that different amounts have different purchasing power.
AC9M1N04	Adding and subtracting numbers within 20 using a variety of calculation strategies.	Solving simple money problems, combining amounts, making purchases and calculating how much more is needed to save for a goal.
AC9M1M01	Comparing and ordering objects and events using measurement attributes.	Comparing products and discussing value by considering which item offers more, lasts longer or better meets a need.
AC9M1ST01	Acquiring and recording categorical data using a variety of representations.	Collecting and comparing information about everyday consumer choices and preferences to answer simple questions.

Looking ahead

In Year 2, students build on these foundations by working more directly with Australian money. They develop greater confidence in recognising the value of coins and notes, solving simple money problems, and applying addition and subtraction strategies in increasingly authentic financial contexts. As their mathematical understanding grows, students also continue to develop their ability to compare options, interpret information and explain their reasoning. By connecting mathematics to everyday experiences, students are gradually building the knowledge, skills and confidence needed to make informed financial decisions. These experiences establish the mathematical and financial foundations for the increasingly sophisticated learning students will encounter throughout the primary and secondary years.



AC9M1N01

Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts

Teaching focus

Students recognise, represent and order numbers to at least 120 using a variety of representations, including physical and virtual materials, numerals, number lines and charts. They build confidence with counting, sequencing and comparing numbers in meaningful everyday contexts.

What students are learning

Students develop their understanding of numbers by recognising, representing and ordering quantities to at least 120. They use concrete materials, visual representations and number sequences to compare quantities, identify greater and smaller numbers, and explain their mathematical thinking. These foundational number skills can be applied in familiar financial contexts, such as counting collections of coins, comparing money amounts and recognising that different quantities represent different purchasing power.

Why this matters

Strong number sense is an essential foundation for financial capability. Before students can calculate costs or manage money, they need to confidently recognise, compare and order numbers. Everyday experiences such as counting coins, identifying prices and understanding that larger amounts allow more purchasing choices help students connect mathematics with the world around them.

Common misconceptions

- Believing that the size of a numeral determines its value rather than its place in the counting sequence.
- Confusing the number of coins with the value of the coins.
- Reversing the order of numbers when comparing larger quantities.
- Assuming that more coins always represent more money.

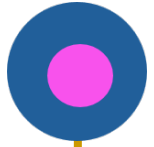
Real-world connections

Students use number skills whenever they count pocket money, compare prices, save towards a goal or decide whether they have enough money to buy something. These everyday experiences help them understand that numbers are used to make sense of the financial world.

Professional practice

Provide regular opportunities for students to use concrete materials alongside visual representations to develop number sense. Financial contexts should remain simple and authentic, focusing on recognising, counting and comparing amounts rather than formal money calculations. Encourage discussion about both the number of coins and their value, helping students recognise that these are not always the same.

Note: The F-2 Mathematics curriculum is undergoing iterative review in 2026. The content descriptors may change. It is expected that this guide will be revised and republished in 2027 to reflect the revisions.



Classroom implementation



Classroom activities

- Count collections of Australian coins or classroom tokens and compare which collection has more, fewer or the same number of items.
- Order price cards for familiar items from the least expensive to the most expensive using whole-dollar amounts.
- Match different collections of play coins to simple price cards and discuss whether each collection represents enough money.
- Use number lines or hundreds charts to compare money amounts and identify which amount is greater or smaller.
- Create simple savings journeys by counting forwards in ones, twos, fives or tens towards a savings goal.

Building mathematical and financial language

- number
- numeral
- count
- represent
- order
- compare
- greater than
- less than
- equal
- amount
- coin
- price

Assessment opportunities

- Recognise, represent and order numbers to at least 120.
- Compare quantities using appropriate mathematical language.
- Count collections of objects, coins or tokens accurately.
- Order simple money amounts from least to greatest.
- Determine whether one amount is greater than, less than or equal to another.
- Explain the strategies used to compare numbers and quantities.

Differentiation

Support

- Use concrete materials such as play coins, counters, number lines and hundreds charts to model number relationships.
- Begin with smaller collections before extending students to larger numbers and money amounts.

Extension

- Challenge students to represent the same money amount using different combinations of coins.
- Encourage students to estimate, then verify, which of two collections has the greater value and explain their reasoning.



AC9M1N04

Add and subtract numbers within 20 using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies

Teaching focus

Students develop efficient addition and subtraction strategies to solve problems involving numbers within 20. They use physical and virtual materials, part-part-whole knowledge and a range of calculation strategies to build confidence and fluency in everyday contexts.

What students are learning

Students learn to add and subtract numbers within 20 using a variety of strategies, including counting on, counting back, partitioning and using part-part-whole relationships. They apply these strategies to solve practical problems and explain their mathematical thinking. Familiar financial situations, such as combining amounts of money, making simple purchases and calculating how much more is needed to reach a savings goal, provide meaningful opportunities to apply these skills.

Why this matters

Addition and subtraction are essential mathematical skills for everyday financial decision-making. Young learners use these skills when saving money, working out the total cost of two items, determining how much money remains after a purchase or calculating how much more they need to achieve a savings goal. These experiences help students see that mathematics supports thoughtful financial choices.

Common misconceptions

- Confusing whether a situation requires addition or subtraction.
- Counting the same object or amount more than once.
- Forgetting to subtract from the correct starting amount.
- Assuming that spending money always means having no money left.

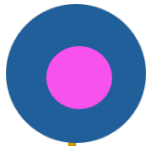
Real-world connections

Students use addition and subtraction when combining money, buying items, checking how much money remains after a purchase and saving towards something they would like to buy. These everyday situations demonstrate how mathematics helps people make informed financial decisions.

Professional practice

Provide students with regular opportunities to solve meaningful problems using concrete materials before moving to more abstract representations. Financial contexts should remain practical and familiar, allowing students to explore how addition and subtraction support everyday decisions involving saving and spending. Encourage students to explain their strategies and compare different ways of reaching the same solution.

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Classroom implementation



Classroom activities

- Use play money to combine two amounts and calculate the total cost of a simple purchase.
- Create shopping challenges where students determine how much money remains after buying an item with a given amount.
- Explore savings goals by calculating how much more money is needed to reach a target amount.
- Solve classroom token or reward point problems that involve adding to or taking away from a collection.
- Use story cards featuring everyday financial situations, such as saving, spending or sharing money, and ask students to choose and explain the appropriate calculation strategy.

Building mathematical and financial language

- add
- subtract
- total
- difference
- altogether
- more
- less
- equal
- purchase
- price
- save
- spend

Assessment opportunities

- Add and subtract numbers within 20 using a variety of calculation strategies.
- Select an appropriate operation to solve a practical problem.
- Solve simple financial problems involving saving, spending or combining amounts.
- Represent solutions using physical materials, drawings or number sentences.
- Explain the strategy used to reach a solution.
- Check whether an answer is reasonable.

Differentiation

Support

- Use concrete materials such as play money, counters, ten frames and part-part-whole diagrams to model addition and subtraction.
- Encourage students to act out story problems before recording their solutions.

Extension

- Challenge students to solve the same problem using two different calculation strategies and compare their efficiency.
- Ask students to create their own money story problem involving addition or subtraction and explain how they solved it.



AC9M1M01

Compare directly and indirectly and order objects and events using attributes of length, mass, capacity and duration, communicating reasoning.

Teaching focus

Students compare directly and indirectly, and order objects and events using the attributes of length, mass, capacity and duration. They develop their ability to explain and justify their comparisons using appropriate mathematical language.

What students are learning

Students compare and order objects and events using attributes such as length, mass, capacity and duration. They learn to make direct comparisons by placing objects together, as well as indirect comparisons using a third object or reference point. Throughout these investigations, students communicate their reasoning and explain how they reached their conclusions. These skills can be applied in familiar everyday situations, including comparing products and considering which option best meets a particular need.

Why this matters

Comparing options is an important part of everyday decision-making. Before making informed financial choices, students need to understand that products can be compared using different attributes, such as how much they hold, how heavy they are or how long they last. These early experiences help students recognise that making choices involves considering more than one characteristic.

Common misconceptions

- Assuming that a taller object always holds more.
- Believing that a larger object is always heavier.
- Comparing objects using different attributes at the same time.
- Providing an answer without explaining the reasoning behind the comparison.

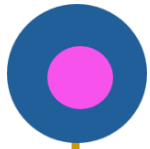
Real-world connections

People compare products and everyday items before making choices. For example, they may choose a larger drink bottle for a long day out, a lighter school bag for comfort or a larger container when shopping for a family. Learning to compare objects using different attributes helps students understand how mathematics supports everyday decisions.

Professional practice

Provide students with opportunities to make both direct and indirect comparisons using familiar objects and real-life contexts. Encourage students to explain their thinking using mathematical language and recognise that different attributes may lead to different decisions. Financial contexts should remain practical and focus on comparing everyday items rather than calculating costs.

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Classroom implementation



Classroom activities

- Compare different drink bottles or lunch containers by capacity and discuss which would be most suitable for different situations.
- Use a balance scale to compare the mass of grocery items and explain which is heavier or lighter.
- Order a collection of containers from the smallest to the largest capacity using direct and indirect comparisons.
- Compare the duration of familiar activities, such as walking to school, reading a book or playing a game, and order them from shortest to longest.
- Investigate two similar everyday products (for example, reusable shopping bags, water bottles or lunchboxes) and compare them using one attribute at a time before explaining which would best meet a particular need.

Building mathematical and financial language

- compare
- order
- length
- mass
- capacity
- duration
- longer
- shorter
- heavier
- lighter
- suitable
- value

Assessment opportunities

- Compare objects directly and indirectly using length, mass, capacity or duration.
- Order objects or events according to a selected attribute.
- Select an appropriate attribute for making a comparison.
- Explain the reasoning behind comparisons using mathematical language.
- Apply comparison skills in familiar everyday situations.
- Justify which object or product is most suitable for a given purpose.

Differentiation

Support

- Provide pairs of familiar objects that can be directly compared using one attribute at a time.
- Use visual prompts and sentence starters to support students in describing and explaining comparisons.

Extension

- Challenge students to compare the same two objects using more than one attribute and discuss how the results differ.
- Ask students to justify which product they would choose for a particular purpose, using evidence from their comparisons.



AC9M1ST01

Acquire and record data for categorical variables in various ways including using digital tools, objects, images, drawings, lists, tally marks and symbols.

Teaching focus

Students acquire and record data for categorical variables using a variety of representations, including digital tools, objects, images, drawings, lists, tally marks and symbols. They develop confidence in organising information and using data to answer questions about familiar situations.

What students are learning

Students collect, organise and record data for categorical variables using a range of representations. They learn to identify categories, record responses accurately and communicate information using objects, drawings, tally marks, symbols, lists and digital tools. Familiar investigations involving everyday choices provide meaningful opportunities to develop these foundational data skills.

Why this matters

Collecting and organising information helps students make sense of the world around them. In everyday financial situations, people often compare options, consider preferences and gather information before making decisions. Learning to record and interpret simple data helps students recognise that evidence can support thoughtful choices.

Common misconceptions

- Recording responses in the wrong category.
- Miscounting tally marks or symbols.
- Assuming that personal preferences represent everyone's choices.
- Confusing the number of responses with the category itself.

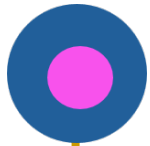
Real-world connections

People collect information every day to help make decisions, from finding out which products are most popular to comparing preferences and planning purchases. Learning to organise and represent data helps students understand how information can be used to answer questions and support everyday decision-making.

Professional practice

Provide students with opportunities to investigate questions that are meaningful and relevant to their everyday experiences. Encourage the use of a variety of representations, including digital tools where appropriate, and promote discussion about how data can be used to answer questions and compare different outcomes. Financial contexts should focus on simple consumer choices and preferences rather than right or wrong answers.

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Classroom implementation



Classroom activities

- Survey classmates about what they would like to save for and record the results using tally marks, symbols or pictures.
- Conduct a class investigation into favourite healthy snacks, books or classroom rewards and organise the results into categories.
- Ask students whether they would choose to save, spend or share a classroom token and display the results using a pictograph or tally chart.
- Use a simple digital tool to collect class responses about everyday consumer choices, such as reusable drink bottles or lunchbox items, and compare the results.
- Create a "class shop" where students vote for one item they would choose to buy with a set number of tokens, then record and discuss the data.

Building mathematical and financial language

- data
- category
- collect
- record
- survey
- tally
- symbol
- list
- compare
- most
- least
- choice

Assessment opportunities

- Collect and record data for categorical variables.
- Organise data accurately into categories.
- Represent data using objects, drawings, tally marks, symbols, lists or digital tools.
- Compare categories using mathematical language such as *most* and *least*.
- Answer questions using the collected data.
- Describe observations and draw simple conclusions from the information collected.

Differentiation

Support

- Provide prepared categories and visual prompts to help students sort and record information accurately.
- Use shared class investigations before asking students to collect and record data independently.

Extension

- Encourage students to design their own simple survey question and collect data from a small group of classmates.
- Challenge students to explain patterns in the data and justify their conclusions using evidence from their results.

WA Financial Mathematics Curriculum

Explore different payment formats and identify Australian coins and notes, according to their value. Students recognise Australian coins and notes, identify their relative values and explore different ways people pay for goods and services, including cash and electronic payments. Through familiar, hands-on activities, they begin to understand that money has different values and that purchases can be made using a variety of payment methods.



Marshmallow Money Connections

The Marshmallow Money series is designed primarily for students in Years 5–10. While there are currently no Year 1 student books or worksheets, this content introduces important concepts that underpin later financial learning.

Teachers may wish to extend classroom learning through discussions about:

- recognising Australian coins and notes and their relative values
- exploring different ways people pay, including cash, debit cards and digital payments
- matching coins to simple prices during classroom role-play
- discussing why people need money to purchase goods and services.

These early experiences provide the foundation for the more sophisticated financial concepts explored throughout the Marshmallow Money series, particularly in **Saving** and **Spending**.

Year 2

In Year 2, students continue to build their mathematical understanding by developing greater confidence with number, operations, measurement and statistics. They apply these skills in increasingly authentic contexts, including recognising Australian money, solving simple money problems and making informed choices.

Students strengthen their understanding of place value, addition, subtraction, multiplication and division while using mathematical reasoning to solve practical problems. They also develop their ability to compare, measure and organise information, building the skills needed to interpret and use data in familiar contexts.

Financial contexts become more explicit in Year 2 as students apply mathematical thinking to familiar situations involving money, simple transactions, saving and spending. These experiences help students understand that mathematics is an essential tool for making informed financial decisions.

Curriculum milestone

Students apply mathematical thinking to increasingly authentic financial situations. They use place value, calculation strategies and data to solve simple problems involving saving, spending, sharing and comparing money amounts.

Year 2 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M2N01	Recognising, representing and ordering numbers to at least 1000.	Students apply place value and number knowledge to recognise, compare and order larger money amounts in everyday financial situations.
AC9M2N04	Adding and subtracting one- and two-digit numbers using a range of strategies.	Students solve simple financial problems involving saving, spending and calculating the total cost of purchases or the change remaining after a transaction.
AC9M2N05	Multiplying and dividing by using repeated addition, equal grouping and sharing.	Students explore financial situations involving equal groups, sharing money, grouping money and purchasing multiple items.
AC9M2ST01	Acquiring, recording and representing data for categorical and discrete numerical variables.	Students collect and organise information about everyday consumer choices and preferences, using data to answer questions and compare results.

Looking ahead

In Year 3, students extend their understanding of number, operations, measurement and statistics by applying increasingly efficient strategies to solve more complex problems. Financial contexts become richer as students work with larger money amounts, interpret data, explore fractions and solve multi-step problems involving everyday financial decisions. The mathematical foundations developed in Year 2 prepare students to solve increasingly complex financial problems and make informed decisions in authentic real-world contexts.



AC9M2N01

Recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines.

Teaching focus

Students recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines. They develop a deeper understanding of place value and apply number knowledge to compare and interpret larger quantities in meaningful everyday contexts.

What students are learning

Students extend their understanding of number by recognising, representing and ordering numbers to at least 1000. They use place value knowledge to compare quantities, identify greater and smaller numbers, and represent numbers in different ways using concrete materials, numerals and number lines. These skills support students' understanding of larger money amounts and other real-world numerical information.

Why this matters

As students encounter larger money amounts, strong place value knowledge becomes increasingly important. Understanding that \$245 is greater than \$154, or recognising how savings can grow over time, relies on confidently comparing and interpreting numbers. These foundational number skills support informed financial decision-making throughout life.

Common misconceptions

- Confusing the value of digits in different place value positions.
- Comparing numbers based on the first digit only.
- Assuming that a longer numeral always represents a larger amount.
- Misreading or misordering larger money amounts.

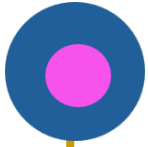
Real-world connections

Students compare larger numbers when reading prices, checking savings balances, estimating costs and interpreting information in everyday life. Developing strong place value understanding helps them make sense of financial information as the amounts they encounter become larger.

Professional practice

Use concrete materials, number lines and visual representations to strengthen students' understanding of place value. Encourage students to explain how they compare numbers and justify their reasoning. Financial contexts should remain familiar and meaningful, focusing on recognising and comparing money amounts rather than complex calculations.

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Classroom implementation



Classroom activities

- Order price cards for everyday items from the least expensive to the most expensive using whole-dollar amounts.
- Compare savings balances and discuss which amount is greater, smaller or equal using place value reasoning.
- Use play money or money cards to represent different money amounts and compare their values.
- Place money amounts on a number line and explain how place value helps determine their order.
- Create simple savings goals and track progress by ordering amounts from the starting balance to the target amount.

Building mathematical and financial language

- place value
- hundreds
- tens
- ones
- represent
- compare
- order
- greater than
- less than
- equal
- amount
- savings

Assessment opportunities

- Recognise, represent and order numbers to at least 1000.
- Compare numbers using place value knowledge.
- Represent larger money amounts using numerals and concrete materials.
- Order prices or savings amounts from least to greatest.
- Explain how place value supports comparisons between numbers.
- Justify the strategies used to compare and order numbers.

Differentiation

Support

- Use base-ten blocks, place value charts, number lines and money cards to model larger numbers.
- Begin with numbers within 100 before extending students to numbers up to 1000.

Extension

- Challenge students to represent the same money amount in different ways using place value and different combinations of notes.
- Encourage students to estimate the order of several money amounts before checking their answers using a number line or place value chart.



AC9M2N04

Add and subtract one- and two-digit numbers, representing problems using number sentences, and solve using part-part-whole reasoning and a variety of calculation strategies.

Teaching focus

Students use a range of calculation strategies to add and subtract one- and two-digit numbers. They represent problems using number sentences, apply part-part-whole reasoning and explain their mathematical thinking when solving practical problems.

What students are learning

Students develop fluency in adding and subtracting one- and two-digit numbers using a variety of mental and written strategies. They represent mathematical situations with number sentences, use part-part-whole reasoning to solve problems and explain how they reached their solutions. These skills are applied in familiar financial contexts such as calculating the total cost of purchases, determining change and working towards savings goals.

Why this matters

Addition and subtraction are fundamental skills for everyday financial decision-making. Students use these skills when adding the cost of items, calculating how much money remains after a purchase or working out how much more they need to save to reach a goal. Developing confidence with these calculations helps students make informed financial decisions in everyday life.

Common misconceptions

- Selecting the wrong operation to solve a problem.
- Forgetting that subtraction can be used to calculate change or determine what remains.
- Making errors when representing situations as number sentences.
- Assuming there is only one correct calculation strategy.

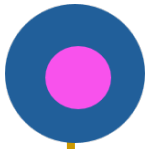
Real-world connections

Students use addition and subtraction whenever they buy items, receive change, save money or compare the cost of different purchases. These everyday situations demonstrate how mathematics supports confident financial decision-making.

Professional practice

Provide students with opportunities to solve meaningful financial problems using concrete materials, visual representations and mental strategies. Encourage students to represent situations with number sentences and explain their reasoning. Discussions should focus on the different strategies students use and why they are effective.

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Classroom implementation



Classroom activities

- Calculate the total cost of two or three everyday items and represent the solution using a number sentence.
- Use play money to determine how much change remains after purchasing an item and explain the calculation strategy used.
- Set a class savings goal and calculate how much more money is needed as new amounts are added.
- Solve financial story problems involving saving, spending or sharing money, then write the corresponding number sentence.
- Compare different calculation strategies for the same money problem, such as counting on, partitioning or using part-part-whole reasoning, and discuss which strategy is most efficient.

Building mathematical and financial language

- add
- subtract
- number sentence
- total
- difference
- part-part-whole
- strategy
- purchase
- change
- save
- spend
- amount

Assessment opportunities

- Add and subtract one- and two-digit numbers using a range of calculation strategies.
- Represent practical problems using appropriate number sentences.
- Solve financial problems involving saving, spending or change.
- Select and explain an appropriate calculation strategy.
- Check whether solutions are reasonable.
- Communicate mathematical thinking using appropriate mathematical language.

Differentiation

Support

- Use play money, counters, number lines and part-part-whole diagrams to model financial situations.
- Encourage students to act out shopping and saving scenarios before recording a number sentence.

Extension

- Challenge students to solve the same financial problem using two different calculation strategies and compare their efficiency.
- Ask students to create their own money story problem, represent it with a number sentence and explain how they solved it.



AC9M2N05

Multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies.

Teaching focus

Students develop multiplication and division strategies by using repeated addition, equal grouping, arrays and partitioning. They build confidence in selecting and applying efficient calculation strategies to solve mathematical problems.

What students are learning

Students multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays and partitioning. They explore different ways to represent and solve multiplication and division problems, developing flexibility in their mathematical thinking and selecting strategies that best suit the task. These skills can be applied in familiar financial contexts, such as calculating the total cost of several identical items, grouping coins of the same value and sharing money equally.

Why this matters

Multiplication and division provide efficient ways to solve everyday financial problems. Students use these skills when buying multiple identical items, grouping money into equal values or sharing money fairly. Developing a range of calculation strategies helps students solve problems accurately and recognise that there are often several effective ways to reach the same solution.

Common misconceptions

- Confusing multiplication with repeated counting rather than recognising equal groups.
- Believing that there is only one correct calculation strategy.
- Counting individual objects instead of recognising groups.
- Assuming that sharing fairly means giving everyone the same number of coins rather than the same value.

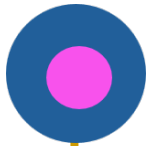
Real-world connections

Students use multiplication and division when buying several identical items, grouping coins of the same value or sharing money fairly. These situations help students understand how efficient calculation strategies support everyday financial decisions.

Professional practice

Provide opportunities for students to explore multiplication and division using concrete materials before moving to more abstract strategies. Encourage students to compare different calculation methods, including repeated addition, arrays and partitioning, and discuss why one strategy may be more efficient than another. Financial contexts should remain practical and age-appropriate, reinforcing the connection between mathematics and everyday money situations.

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Classroom implementation

Classroom activities

- Calculate the total cost of buying several identical items using repeated addition, arrays or equal groups.
- Group collections of play coins into equal values and determine the total amount in each group.
- Share a collection of play money equally between two or more people and explain the strategy used.
- Use arrays to represent equal groups of coins, tokens or classroom rewards and connect the model to multiplication.
- Explore different ways to solve the same financial problem using repeated addition, equal grouping or partitioning, and compare the strategies.

Building mathematical and financial language

- multiply
- divide
- repeated addition
- equal groups
- array
- partition
- share
- total
- group
- value
- coins
- strategy

Assessment opportunities

- Multiply and divide by one-digit numbers using a variety of calculation strategies.
- Represent multiplication and division using repeated addition, equal groups, arrays or partitioning.
- Solve practical financial problems involving equal groups, sharing or multiple purchases.
- Select and explain an appropriate calculation strategy.
- Recognise that the same problem can be solved using different methods.
- Communicate mathematical thinking using appropriate mathematical language.

Differentiation

Support

- Use concrete materials such as play coins, counters and arrays to model equal groups before introducing symbolic representations.
- Begin with small equal groups and simple sharing situations before increasing the number of groups or items.

Extension

- Challenge students to solve the same financial problem using two different strategies and compare the efficiency of each.
- Ask students to create their own multiplication or division story problem involving equal sharing or multiple purchases and explain how they solved it.



AC9M2ST01

Acquire data for categorical variables through surveys, observation, experiment and using digital tools; sort data into relevant categories and display data using lists and tables.

Teaching focus

Students collect categorical data through surveys, observation, experiments and digital tools. They sort data into meaningful categories and organise it using lists and tables to answer simple questions.

What students are learning

Students investigate questions by gathering data from surveys, observations and simple experiments. They sort information into relevant categories and display the results using lists and tables. Through familiar financial contexts, students learn how data can be collected and organised to better understand spending choices, saving habits and consumer preferences.

Why this matters

Collecting and organising data helps students make sense of information and recognise patterns. In everyday financial situations, people use data to compare preferences, identify trends and make informed decisions. Learning to collect and organise information prepares students to think critically about money and everyday choices.

Common misconceptions

- Placing data into more than one category when categories should be mutually exclusive.
- Recording responses inconsistently or omitting data.
- Believing that the largest category is always the "best" choice.
- Confusing the process of collecting data with interpreting the results.

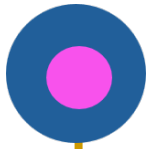
Real-world connections

People collect and organise data to understand customer preferences, spending habits and consumer behaviour. Students experience these ideas by collecting simple financial data from their classmates and organising it into lists and tables.

Professional practice

Provide students with opportunities to investigate questions that are meaningful and relevant to their everyday experiences. Encourage discussion about choosing appropriate categories before collecting data and checking that all responses have been recorded accurately. Financial contexts should remain familiar and focus on simple choices that students can relate to.

Note: The F-2 Mathematics curriculum is undergoing iterative review in 2026. The content descriptors may change. It is expected that this guide will be revised and republished in 2027 to reflect the revisions.



Classroom implementation

Classroom activities

- Survey classmates about what they would do with birthday money (save, spend, donate or share) and record the results in a table.
- Investigate different ways students can earn money at home, such as completing chores or helping family members, and organise the results into categories.
- Sort pictures of everyday purchases into needs and wants, then record the results using a list or table.
- Conduct a class survey about what students would choose to buy with a small amount of money and compare the results.
- Use a simple digital survey tool to collect, sort and display class responses about everyday financial choices.

Building mathematical and financial language

- data
- survey
- observation
- category
- sort
- record
- list
- table
- compare
- results
- needs
- wants

Assessment opportunities

- Collect categorical data through surveys, observations or simple investigations.
- Sort data into appropriate categories.
- Display data accurately using lists and tables.
- Answer questions using the collected data.
- Draw simple conclusions from the organised data.
- Explain patterns or trends using evidence from the data.

Differentiation

Support

- Provide prepared categories or partially completed tables to help students organise information accurately.
- Model how to record responses consistently using lists and tables before students work independently.

Extension

- Encourage students to develop their own survey question, collect data from classmates and organise the results.
- Challenge students to compare two sets of data and explain similarities, differences or emerging patterns using evidence from their tables.

WA Financial Mathematics Curriculum

Explore and describe the relationship between dollars (\$) and cents (c) and their value in the contexts of spending, saving and donating.

Students develop an understanding of the relationship between dollars and cents while exploring how money is used in familiar situations involving spending, saving and donating. Through practical activities, they compare money amounts, recognise equivalent values and begin making simple financial decisions using Australian currency



Marshmallow Money Connections

The Marshmallow Money series is designed primarily for students in Years 5–10. While there are currently no Year 2 student books or worksheets, this content builds the essential foundations for later financial learning.

Teachers may wish to extend classroom learning through discussions about:

- the relationship between dollars and cents
- recognising that money can be spent, saved or donated
- comparing money amounts and making simple purchasing choices
- discussing personal saving goals and reasons why people choose to save or give money to others.

These experiences establish the financial concepts explored in greater depth throughout the Marshmallow Money series, particularly in **Saving** and **Spending**.

Year 3

In Year 3, students begin to explore money as an explicit focus within the Australian Curriculum: Mathematics. They recognise the relationships between Australian dollars and cents, represent money values in different ways, and apply mathematical reasoning to solve practical financial problems involving purchases, change and simple decision-making.

Students continue to strengthen their understanding of number and operations while applying these skills in increasingly authentic financial contexts. They estimate costs, compare prices, calculate totals and change, and use mathematical modelling to solve everyday problems involving money. These experiences help students understand that mathematics is an essential tool for making informed financial decisions.

By connecting classroom learning with familiar financial situations, Year 3 builds students' confidence in using mathematics to interpret, compare and manage money. These experiences strengthen financial capability while laying the foundation for the more sophisticated financial concepts explored throughout the upper primary and secondary years.

Curriculum milestone

Year 3 is the first-year level in the Australian Curriculum: Mathematics where money is introduced as an explicit curriculum focus. Students move beyond using money as a familiar context and begin developing mathematical understanding directly related to Australian currency and financial problem-solving

Year 3 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M3M06	Recognising relationships between dollars and cents and represent money values in different ways	Australian money, equivalent values, making purchases and calculating change.
AC9M3N06	Using mathematical modelling to solve practical problems, including financial contexts	Shopping, budgeting, comparing prices and making informed financial decisions.

Looking ahead

In Year 4, students extend their understanding of money by representing amounts using decimal notation and applying mathematical reasoning to more sophisticated financial situations. They continue to develop problem-solving skills through investigations involving budgeting, financial planning and real-world decision-making, building the confidence and capability needed to manage money effectively in everyday life.



AC9M3M06

Recognise the relationships between dollars and cents and represent money values in different ways.

Teaching focus

Students develop an understanding that money can be partitioned and recombined in multiple ways, applying place value and flexible thinking to represent equivalent values and solve simple financial problems.

What students are learning

Students develop an understanding of the relationship between dollars and cents and learn that the same amount of money can be represented in many different ways using Australian coins and notes. They apply place value knowledge to represent, compare and calculate money amounts while developing flexible strategies for solving everyday financial problems. Through authentic money investigations, students build confidence in recognising equivalent money values, making purchases and calculating change.

Why this matters

Money is one of the first ways children experience mathematics beyond the classroom. Whether purchasing lunch at the school canteen, saving for a special item or helping with the weekly grocery shop, students use mathematical thinking to make sense of everyday financial situations. Developing confidence with money supports numeracy while laying the foundations for responsible financial decision-making throughout life.

Common misconceptions

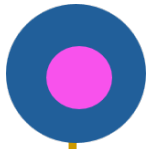
- Larger coins are always worth more than smaller coins.
- There is only one way to represent a money amount.
- The change received is the same as the cost of an item.
- Dollars and cents can be treated as separate whole numbers.
- There is no need to estimate whether an answer is reasonable.

Real-world connections

- Buying lunch at the school canteen.
- Comparing prices while grocery shopping.
- Saving for a toy, book or game.
- Shopping at a weekend market.
- Purchasing items for a class celebration or fundraiser.

Professional practice

Encourage students to explain and justify their thinking when representing money amounts in different ways. Asking questions such as *"Can you make this amount another way?"* or *"How do you know these two collections have the same value?"* promotes flexible thinking, strengthens place value understanding and develops mathematical reasoning. Use physical or virtual Australian coins and notes to provide hands-on learning experiences before moving to abstract calculations.



Classroom implementation

Classroom activities

- Represent the same money amount using different combinations of Australian coins and notes.
- Use play money to make purchases in a classroom shop and calculate totals and change.
- Compare the prices of everyday items using supermarket catalogues or online shopping brochures.
- Estimate the total cost of two or three items before calculating the exact amount.
- Solve simple shopping problems involving addition, subtraction and making change.
- Challenge students to find the fewest or greatest number of coins needed to represent a given amount.

Building mathematical and financial language

- money
- dollars
- cents
- value
- coins
- notes
- equivalent
- price
- cost
- total
- change
- estimate

Assessment opportunities

- Recognise and represent money amounts using different combinations of Australian coins and notes.
- Explain the relationship between dollars and cents.
- Compare and represent equivalent money values.
- Calculate the total cost of simple purchases and determine the correct change.
- Select efficient strategies to solve practical money problems.
- Justify mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Use physical Australian coins and notes or virtual money manipulatives to model equivalent money amounts.
- Begin with whole-dollar amounts before introducing combinations of dollars and cents.

Extension

- Challenge students to represent the same money amount using the fewest coins, the greatest number of coins, or multiple different combinations.
- Ask students to compare the cost of several items, estimate the total and explain whether they have enough money to make the purchase.



AC9M3N06

Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation.

Teaching focus

Students use mathematics to investigate and solve authentic problems by identifying relevant information, selecting appropriate strategies and interpreting their solutions in context. Through financial situations, students develop confidence in applying mathematical thinking to everyday decision-making.

What students are learning

Students apply their mathematical knowledge to solve authentic problems involving addition, subtraction, multiplication and simple financial situations. They learn to identify the mathematics needed to solve a problem, represent it using number sentences, choose appropriate calculation strategies and explain the reasonableness of their solutions. By working with realistic financial contexts, students begin to see mathematics as a practical tool for making decisions, solving everyday problems and communicating their thinking.

Why this matters

Mathematical modelling helps students move beyond performing calculations to understanding when and why mathematics is used. Everyday financial decisions (such as comparing prices, planning purchases, saving towards a goal or organising a class event) require students to interpret information, select efficient strategies and justify their decisions. Developing these skills builds confidence, mathematical reasoning and financial capability that students will continue to use throughout their lives.

Common misconceptions

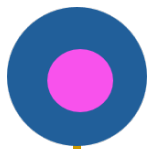
- There is only one correct strategy for solving a problem.
- The first calculation is always the correct one.
- Students should begin calculating before understanding the problem.
- The largest quantity or lowest price is automatically the best choice.
- An answer does not need to be interpreted in the context of the problem.

Real-world connections

- Planning purchases within a budget.
- Comparing prices in supermarket catalogues.
- Organising a class celebration or fundraiser.
- Choosing between different purchasing options.
- Saving towards a personal goal.
- Calculating the total cost of a family shopping list.

Professional practice

Encourage students to discuss their thinking before, during and after solving a problem. Ask questions such as *"What information is important?"*, *"Which strategy would work best?"* and *"Does your answer make sense in this situation?"* Supporting students to explain and justify their reasoning strengthens mathematical modelling and helps them recognise that many problems can be solved using different, equally valid strategies. Provide open-ended tasks that allow students to make decisions, compare approaches and communicate their reasoning rather than simply applying a single procedure.



Classroom implementation

Classroom activities

- Plan a shopping trip using a set budget and determine which items can be purchased within the available money.
- Compare the prices of similar products and justify which option offers the best value for a given situation.
- Calculate the total cost of purchasing multiple items and determine the remaining budget.
- Design a simple class fundraising activity by estimating costs, predicting income and discussing how any money raised could be used.
- Create and solve money-based word problems using number sentences, diagrams or tables, then explain why the chosen strategy was appropriate.
- Use digital catalogues or supermarket websites to compare prices, estimate totals and evaluate different purchasing options.

Building mathematical and financial language

- budget
- cost
- price
- total
- value
- estimate
- strategy
- number sentence
- model
- compare
- justify
- solution

Assessment opportunities

- Identify the mathematics needed to solve a practical financial problem.
- Represent financial situations using number sentences, diagrams, tables or concrete materials.
- Select and apply appropriate calculation strategies.
- Interpret solutions in the context of the financial situation.
- Justify decisions using mathematical evidence and reasoning.
- Communicate mathematical thinking using appropriate mathematical and financial language.

Differentiation

Support

- Provide structured problem-solving templates that help students identify the important information, choose an operation and check whether their solution is reasonable.
- Use concrete materials, visual models or digital tools to support students in representing and solving financial problems.

Extension

- Challenge students to compare two or more possible solutions to the same financial problem and justify which provides the best outcome.
- Ask students to design their own real-world financial investigation, collect relevant information and present their solution with supporting mathematical reasoning.

WA Financial Mathematics Curriculum

Investigate financial transactions, recognising equivalent values and change.

Students investigate everyday financial transactions by recognising equivalent money values, calculating totals and determining change. They apply their understanding of Australian currency to compare prices, make purchases and solve simple money problems, strengthening both mathematical reasoning and financial confidence.



Marshmallow Money Connections

Although **Saving** is written for older students, many of its concepts can be adapted for Year 3 to introduce financial thinking through authentic classroom discussions.

Student book

- **Saving** – selected pages exploring where money comes from (pp. 10-17), why people save (p. 18), setting simple savings goals (pp. 19-24), and making thoughtful spending decisions (pp. 22-23).

Suggested classroom connections

- Compare the cost of items and discuss how saving helps people achieve a goal.
- Use classroom shopping activities to calculate totals, recognise equivalent money values and determine change.
- Discuss different choices people make with money, including spending, saving and donating.
- Introduce the idea that planning purchases can help people make informed financial decisions.

Year 4

In Year 4, students extend their mathematical understanding by developing efficient calculation strategies, using estimation to check the reasonableness of their answers, and applying mathematical modelling to solve practical problems. Authentic financial contexts provide meaningful opportunities for students to apply these skills while making decisions about purchases, comparing prices, calculating totals and change, and evaluating value for money.

As students investigate authentic financial situations, they strengthen their understanding of number and the four operations while developing confidence in selecting efficient strategies, estimating solutions and explaining their mathematical reasoning. Through discussion, problem-solving and decision-making, students recognise that mathematics is an essential tool for managing money and making informed financial choices.

Curriculum milestone

Students begin representing money using decimal notation, strengthening the connection between place value, decimals and financial mathematics. They apply mathematical reasoning to increasingly realistic financial situations involving budgeting, comparison and decision-making.

Year 4 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M4N06	Developing efficient calculation strategies for addition, subtraction, multiplication and division	Calculating totals, change, comparing prices, efficient calculations
AC9M4N07	Choosing and using estimation and rounding to check and explain the reasonableness of calculations, including financial transactions	Estimating shopping totals, checking receipts, verifying change
AC9M4N08	Using mathematical modelling to solve practical problems, including financial contexts	Budgeting, shopping, comparing value for money and financial decision-making.

Looking ahead

In Year 5, students apply financial mathematics in increasingly sophisticated contexts, including budgeting, comparing value for money and making informed financial decisions. Building on the strong number sense, reasoning and problem-solving skills developed in Year 4, students continue to expand their mathematical understanding while developing the financial capability needed for life beyond the classroom.



AC9M4N06

Develop efficient strategies for adding, subtracting, multiplying and dividing natural numbers without a calculator.

Teaching focus

Students develop efficient calculation strategies that enable them to solve practical problems accurately and confidently. Financial contexts provide meaningful opportunities to apply these strategies when calculating totals, comparing prices, determining change and making informed purchasing decisions.

What students are learning

Students develop and apply efficient mental and written strategies for addition, subtraction, multiplication and division. They learn to select appropriate strategies for different situations and explain why their chosen approach is effective.

Authentic financial situations encourage students to apply these strategies when calculating costs, comparing prices and solving everyday purchasing problems.

Why this matters

Accurate and efficient calculation is an essential life skill. Every day, people use mental and written calculations when shopping, budgeting, checking receipts and comparing prices. Developing flexible calculation strategies helps students become confident problem-solvers who can make informed financial decisions in everyday situations.

Common misconceptions

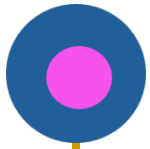
- There is only one correct strategy for solving a calculation.
- Mental strategies are less accurate than written methods.
- Multiplication is only used in times tables, not in everyday situations.
- Calculations do not need to be checked for accuracy.
- The cheapest item always represents the best value.

Real-world connections

- Grocery shopping.
- Buying multiple items.
- Comparing prices across different stores.
- Reading and checking receipts.
- Planning purchases within a budget.

Professional practice

Encourage students to share and compare different calculation strategies when solving the same problem. Discussing multiple approaches helps students develop flexibility, strengthens number sense and demonstrates that efficient mathematics is about selecting an appropriate strategy rather than following a single procedure. Use authentic financial scenarios to provide purpose for calculations and encourage students to explain why their answers make sense.



Classroom implementation



Classroom activities

- Calculate the total cost of several everyday items using different mental and written calculation strategies.
- Compare prices from supermarket catalogues or online stores and determine the most economical purchase for a given budget.
- Calculate the cost of buying multiple quantities of the same item using multiplication and efficient mental strategies.
- Investigate shopping receipts by checking totals and identifying any calculation errors.
- Solve practical financial problems using two different calculation strategies, then compare and justify which strategy is the most efficient.
- Plan a simple class purchase within a budget by calculating costs, comparing options and explaining the final decision.

Building mathematical and financial language

- calculate
- strategy
- total
- cost
- price
- quantity
- multiply
- divide
- estimate
- receipt
- compare
- value

Assessment opportunities

- Select efficient strategies for addition, subtraction, multiplication and division.
- Calculate totals, costs and change accurately in financial situations.
- Compare different calculation strategies and justify the strategy selected.
- Check the accuracy and reasonableness of solutions.
- Apply efficient calculation strategies to unfamiliar financial problems.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide number lines, multiplication charts or place value materials to support efficient calculation strategies.
- Encourage students to solve financial problems using concrete materials before moving to mental or written methods.

Extension

- Challenge students to solve the same financial problem using multiple strategies and evaluate which is the most efficient.
- Ask students to investigate different purchasing options, compare the total costs and justify which represents the best value for money.



AC9M4N07

Choose and use estimation and rounding to check and explain the reasonableness of calculations, including the results of financial transactions.

Teaching focus

Students develop confidence in using estimation and rounding to determine whether their calculations are reasonable. They learn that estimating is not a shortcut, but an important mathematical strategy that supports accurate calculations and informed financial decision-making in everyday situations.

What students are learning

Students use estimation and rounding to predict, check and explain the reasonableness of calculations. They apply these strategies to authentic financial situations, including estimating shopping totals, checking change and verifying the accuracy of receipts and other financial transactions. By comparing estimates with exact calculations, students develop number sense and learn to recognise when an answer is unlikely to be correct.

Why this matters

People estimate every day when making financial decisions. Before reaching the checkout, they estimate the total cost of their shopping, decide whether they have enough money to make a purchase and check whether the change they receive seems reasonable.

Developing strong estimation skills helps students become more confident consumers who can identify errors, make informed decisions and use mathematics effectively in everyday life.

Common misconceptions

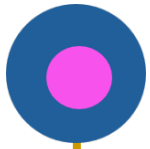
- Estimation means guessing.
- Estimates must be exactly the same as the final answer.
- Rounding always makes an answer less accurate.
- Exact calculations do not need to be checked.
- Estimation is only useful in mathematics lessons.

Real-world connections

- Estimating the cost of groceries before paying.
- Checking whether enough money is available for a purchase.
- Reading and checking shopping receipts.
- Estimating the cost of a class excursion or fundraiser.
- Comparing estimated and actual spending.

Professional practice

Model estimation as a routine part of problem-solving rather than an optional extra. Encourage students to make an estimate before calculating an exact answer and then explain whether their final solution is reasonable. Discuss how estimation supports decision-making in authentic financial situations and helps identify calculation errors.



Classroom implementation



Classroom activities

- Estimate the total cost of a shopping basket before calculating the exact amount.
- Round prices to the nearest dollar or five dollars to make quick estimates of shopping totals.
- Compare estimated totals with exact calculations and discuss why any differences occurred.
- Check shopping receipts to determine whether the total cost and change received are reasonable.
- Create shopping scenarios where students explain how estimation helps them decide whether they have enough money to make a purchase.
- Investigate situations where estimation is more useful than an exact calculation, such as planning a class event or estimating the cost of groceries.

Building mathematical and financial language

- estimate
- rounding
- reasonable
- exact
- total
- receipt
- transaction
- price
- cost
- change
- calculation
- strategy

Assessment opportunities

- Estimate the total cost of purchases using appropriate rounding strategies.
- Explain why an estimate is reasonable.
- Compare estimates with exact calculations.
- Use estimation to check the results of financial transactions.
- Identify when a calculated answer is unlikely to be correct.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Use number lines, rounded price cards and visual models to help students develop estimation strategies.
- Encourage students to round one price at a time before estimating the total cost of several items.

Extension

- Challenge students to compare different rounding strategies and discuss which produces the most useful estimate in a given financial situation.
- Ask students to investigate a shopping receipt, identify any unreasonable totals or change amounts, and explain how estimation helped them check the accuracy of the transaction.



AC9M4N08

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.

Teaching focus

Students use mathematical modelling to investigate authentic financial situations by identifying relevant information, selecting efficient calculation strategies and interpreting their solutions in context. They learn that mathematics is a practical tool for solving problems, making informed decisions and communicating their reasoning.

What students are learning

Students apply mathematical modelling to solve practical problems involving addition, subtraction, multiplication and division in everyday financial situations. They learn to interpret a problem, represent it using number sentences, choose appropriate calculation strategies and explain the reasonableness of their solutions. Through authentic financial investigations, students develop confidence in using mathematics to make informed decisions and justify their thinking.

Why this matters

Everyday financial decisions involve more than completing calculations. People compare prices, work within budgets, evaluate purchasing options and decide how to spend their money. Mathematical modelling helps students understand how mathematics supports these decisions by providing a structured way to investigate problems, evaluate options and communicate solutions. These experiences build both mathematical confidence and financial capability, preparing students to use mathematics effectively in everyday life.

Common misconceptions

- Every problem has only one correct solution strategy.
- The cheapest product always represents the best value.
- Calculations are more important than interpreting the solution.
- Number sentences are separate from real-life situations.
- Mathematical modelling is simply completing a calculation.

Real-world connections

- Planning a shopping trip within a budget.
- Comparing supermarket specials.
- Choosing between different purchasing options.
- Estimating the cost of a family outing.
- Organising a fundraising event or class activity.
- Deciding how to spend or save available money.

Professional practice

Use open-ended investigations that encourage students to make decisions, compare strategies and explain their reasoning. Provide opportunities for students to discuss alternative solutions and evaluate the advantages and limitations of different approaches. Authentic financial contexts help students recognise that mathematics is used to support decision-making, not simply to produce correct answers.



Classroom implementation



Classroom activities

- Plan a class celebration using a fixed budget and justify purchasing decisions based on available funds.
- Compare the prices of similar products and explain which option provides the best value for money.
- Create a shopping plan that stays within a nominated budget while meeting a set of requirements.
- Investigate supermarket catalogues or online stores to compare specials, calculate total costs and recommend the best purchasing option.
- Write and solve financial word problems using number sentences, diagrams or tables, then explain how the solution relates to the original situation.
- Explore multiple solution strategies for the same financial problem and justify which strategy is the most efficient and appropriate.

Building mathematical and financial language

- model
- budget
- strategy
- number sentence
- total
- cost
- value
- compare
- justify
- estimate
- solution
- transaction

Assessment opportunities

- Identify the mathematics required to solve a practical financial problem.
- Represent financial situations using number sentences, diagrams, tables or digital tools.
- Select and apply efficient calculation strategies.
- Interpret solutions in the context of the financial situation.
- Evaluate financial options and justify decisions using mathematical evidence.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide structured modelling templates that help students identify important information, choose an operation, represent the problem and check whether the solution is reasonable.
- Use visual models, concrete materials or digital tools to support students in planning and solving financial investigations.

Extension

- Challenge students to compare several purchasing options, considering both price and value for money, and justify their final recommendation.
- Ask students to design their own financial investigation, collect relevant information, model the situation mathematically and present their conclusions to the class.

WA Financial Mathematics Curriculum

Explore saving and spending, recognising that limited amounts of money are available.

Students explore how people make decisions about spending and saving when money is limited. They recognise that financial choices involve trade-offs and begin to understand the importance of planning, prioritising and making thoughtful decisions about how money is used.



Marshmallow Money Connections

Student book

- **Saving** – selected pages exploring where money comes from (pp. 10–17), using ATMs (page 17), why people save (p. 18), setting savings goals (pp. 19–24), and making thoughtful spending decisions (pp. 22–23).
- **Spending** – selected pages introducing needs and wants (pp. 10–11), making spending decisions (pp. 12–15), and recognising that every purchase involves a choice (p. 9).

Suggested classroom connections

- Discuss why people cannot buy everything they want and how priorities influence spending decisions.
- Compare different ways people might use the same amount of money by spending, saving or donating it.
- Explore the role of ATMs and where money comes from, including tap-and-go payments
- Use simple budgeting activities to demonstrate that money is limited and choices involve trade-offs.
- Encourage students to explain how setting a savings goal can influence spending decisions

Year 5

In Year 5, students apply increasingly sophisticated mathematical thinking to authentic financial situations. They explore percentages, develop efficient calculation strategies, use estimation to check the reasonableness of their answers and apply mathematical modelling to solve practical financial problems.

Through investigations involving shopping, budgeting, comparing prices and evaluating value for money, students strengthen their understanding of number, fractions, decimals and percentages while developing the reasoning skills needed to make informed financial decisions.

Curriculum milestone

Students extend their financial reasoning by applying fractions, decimals and percentages to money contexts. Financial decisions become more analytical as students compare options, interpret information and justify their reasoning.

Year 5 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M5N04	Recognising and using percentages	Discounts, sales, savings, comparing value for money
AC9M5N06	Developing and applying efficient multiplication strategies	Calculating shopping totals, budgeting and purchasing multiple items.
AC9M5N08	Using estimation to check the reasonableness of calculations, including financial contexts	Estimating shopping totals, checking receipts, verifying budgets
AC9M5N09	Using mathematical modelling to solve practical problems, including financial contexts	Budgeting, comparing purchasing options, planning purchases, financial decision-making

Looking ahead

In Year 6, students extend their financial understanding by applying mathematics to longer-term planning and more complex financial situations. They investigate budgets, compare financial options and solve increasingly sophisticated multi-step problems, strengthening the mathematical reasoning and financial capability needed for everyday decision-making.



AC9M5N04

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.

Teaching focus

Support students to develop an understanding of percentages as a way of representing parts of a whole and applying them in everyday situations. Students use percentages to compare values, interpret discounts and communicate financial information in meaningful contexts.

What students are learning

Students recognise percentages as representing fractions with a denominator of 100 and make connections between percentages, fractions and decimals. They calculate and interpret simple percentages and apply this understanding to solve practical problems involving discounts, savings and comparisons.

Why this matters

Percentages are used extensively in everyday financial decision-making. Whether interpreting a sale, comparing discounts, understanding interest rates or analysing data, students need to recognise what percentages represent and how they influence financial choices. Developing these skills enables students to become more confident and informed consumers.

Common misconceptions

Students may:

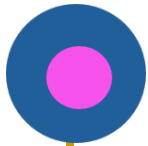
- believe that a larger percentage always represents the better purchase without considering the original price.
- confuse percentage discounts with the final selling price.
- have difficulty recognising equivalent representations as fractions, decimals and percentages.
- assume all sale prices provide genuine savings.

Real-world connections

Students encounter percentages whenever they shop, compare discounts, read advertisements, monitor savings progress or interpret information presented in the media. Understanding percentages helps them evaluate purchasing decisions and recognise value for money.

Professional practice

Use authentic examples from supermarket catalogues, online shopping websites and retail advertisements to demonstrate how percentages are used in everyday life. Encourage students to explain their reasoning, compare different solution strategies and justify which purchasing option provides the greatest value rather than simply calculating an answer.



Classroom implementation

Classroom activities

- Calculate the discount on items advertised as 10%, 25% and 50% off, then determine the sale price.
- Compare different sale offers to decide which provides the greatest saving and explain the reasoning.
- Investigate whether a larger percentage discount always represents the best value by comparing items with different original prices.
- Calculate the percentage of a savings goal that has already been achieved and estimate how much remains.
- Design a simple shop catalogue featuring discounted items, then exchange catalogues with a partner to calculate sale prices and savings.
- Analyse retail advertisements to identify percentage discounts and discuss whether the promotions represent genuine value for money.

Building mathematical and financial language

- percentage
- percent
- discount
- original price
- sale price
- savings
- value for money
- fraction
- decimal
- equivalent
- compare
- promotion

Assessment opportunities

- Recognise and calculate simple percentage discounts.
- Connect percentages with their equivalent fractions and decimals.
- Compare purchasing options using percentage information.
- Determine sale prices and savings accurately.
- Evaluate whether a promotional offer represents good value for money.
- Justify financial decisions using appropriate mathematical and financial language.

Differentiation

Support

- Use visual models such as hundred grids, fraction strips and decimal grids to demonstrate the relationships between fractions, decimals and percentages.
- Begin with familiar benchmark percentages such as 10%, 25%, 50% and 100% before exploring less familiar values.

Extension

- Challenge students to compare several sale offers involving different original prices and percentage discounts to determine which provides the greatest saving.
- Ask students to investigate real retail advertisements and evaluate whether the advertised discounts represent genuine value for money, supporting their conclusions with mathematical evidence.



AC9M5N06

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.

Teaching focus

Support students to select and apply efficient multiplication strategies to solve practical problems. Students build fluency with multiplication while developing confidence in choosing appropriate methods to calculate costs, compare prices and solve everyday financial problems.

What students are learning

Students apply multiplication strategies flexibly to solve problems involving larger numbers. They use mental computation, written methods and digital tools where appropriate, selecting efficient strategies to calculate totals, compare costs and justify their solutions.

Why this matters

Efficient multiplication is essential for everyday financial decision-making. Whether calculating the total cost of several items, comparing unit prices, planning a budget or estimating expenses, students need to choose strategies that are both accurate and efficient. Developing these skills supports confident and informed financial decisions.

Common misconceptions

Students may:

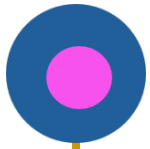
- rely on one calculation method even when a more efficient strategy is available.
- confuse multiplication with repeated addition in more complex situations.
- overlook the importance of estimating to check the reasonableness of an answer.
- assume the lowest price always represents the best value without considering quantity.

Real-world connections

Multiplication is used whenever people calculate shopping totals, compare prices, determine the cost of multiple items, prepare budgets or evaluate purchasing options. Efficient calculation strategies make everyday financial decisions quicker and more accurate.

Professional practice

Provide students with authentic financial investigations that encourage them to select their own calculation strategies rather than following a prescribed method. Encourage discussion about why one strategy may be more efficient than another and provide opportunities for students to explain and justify their mathematical thinking.



Classroom implementation



Classroom activities

- Calculate the total cost of shopping lists using efficient multiplication strategies.
- Compare the cost of buying individual items and multipacks to determine which provides the best value for money.
- Plan a class event using a fixed budget and calculate the total cost of food, equipment or supplies.
- Investigate unit prices for similar grocery items and explain which option is the most economical.
- Create shopping scenarios that require students to select and justify the most efficient multiplication strategy.
- Estimate the total cost of multiple purchases before calculating the exact amount and discuss whether the answer is reasonable.

Building mathematical and financial language

- multiply
- product
- factor
- strategy
- estimate
- total cost
- budget
- unit price
- economical
- value for money
- efficient
- quantity

Assessment opportunities

- Select efficient multiplication strategies to solve practical problems.
- Calculate the total cost of multiple purchases accurately.
- Compare purchasing options using multiplication and unit pricing.
- Check the reasonableness of solutions using estimation.
- Justify the calculation strategy selected.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide arrays, place value materials, multiplication charts or area models to support efficient multiplication strategies.
- Encourage students to estimate answers before calculating exact totals to strengthen number sense and confidence.

Extension

- Challenge students to compare several purchasing options using unit prices, quantities and total costs to determine the best value for money.
- Ask students to design a real-world shopping investigation that requires multiplication, estimation and financial reasoning, then present and justify their solution.



AC9M5N08

Check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context.

Teaching focus

Support students to develop estimation strategies that help them judge whether calculations and financial decisions are reasonable. Students learn to use estimation as an important mathematical tool for checking answers before accepting them as correct.

What students are learning

Students estimate quantities and calculations before and after solving problems to determine whether their answers are reasonable. They apply estimation in everyday situations, including shopping, budgeting and comparing costs, using mental computation and number sense to evaluate the accuracy of their results.

Why this matters

Estimation is an essential financial skill. People regularly estimate shopping totals, check receipts, compare prices and judge whether a financial calculation makes sense before making a purchase. Developing strong estimation skills helps students identify errors, make informed decisions and become more confident consumers.

Common misconceptions

Students may:

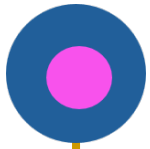
- believe estimation means guessing rather than using mathematical reasoning.
- think exact calculations are always necessary before making decisions.
- rely on calculators without considering whether an answer is reasonable.
- have difficulty recognising when an estimated answer is sufficiently accurate for the situation.

Real-world connections

People estimate costs when shopping, checking receipts, planning events, preparing budgets and deciding whether they have enough money to make a purchase. Estimation also helps identify calculation errors and avoid overspending.

Professional practice

Encourage students to estimate before calculating and again after obtaining an answer. Ask questions such as, *"Does this answer seem reasonable?"* and *"How do you know?"* to promote mathematical reasoning and develop students' confidence in evaluating their own work.



Classroom implementation



Classroom activities

- Estimate the total cost of a selection of supermarket items before calculating the exact amount.
- Compare estimated and actual shopping totals, then explain why any differences occurred.
- Identify deliberate errors in shopping receipts or financial calculations using estimation strategies.
- Plan a simple budget and use estimation to determine whether it is achievable before completing exact calculations.
- Investigate supermarket catalogues or online shopping websites by estimating totals before calculating the exact cost of selected items.
- Compare different estimation strategies and discuss which is the most appropriate for a particular financial situation.

Building mathematical and financial language

- estimate
- reasonable
- approximate
- exact
- total
- budget
- cost
- receipt
- round
- compare
- strategy
- transaction

Assessment opportunities

- Estimate totals using appropriate strategies for the context.
- Explain why an answer is or is not reasonable.
- Check financial calculations using estimation.
- Identify errors in financial calculations or receipts.
- Select appropriate estimation strategies for different financial situations.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Model estimation using rounded prices, number lines and visual representations before introducing more complex financial situations.
- Encourage students to estimate one calculation at a time before combining results to build confidence and accuracy.

Extension

- Challenge students to compare different estimation strategies for the same financial problem and justify which provides the most useful estimate.
- Ask students to investigate a shopping receipt or budget, identify any unreasonable calculations and explain how estimation supports informed financial decision-making.



AC9M5N09

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.

Teaching focus

Support students to use mathematical modelling to investigate, represent and solve practical problems involving financial situations. Students develop confidence in selecting appropriate mathematical strategies, interpreting information and making informed decisions based on their findings.

What students are learning

Students use mathematical modelling to solve authentic problems by identifying relevant information, selecting appropriate mathematical processes, interpreting results and evaluating the reasonableness of their solutions. They apply these skills to financial contexts such as budgeting, comparing prices and planning purchases.

Why this matters

Financial decisions often involve more than one calculation. People compare options, work within budgets, consider trade-offs and evaluate different solutions before deciding what to do. Mathematical modelling helps students apply mathematics to these real-life situations, developing both problem-solving skills and financial capability.

Common misconceptions

Students may:

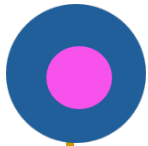
- believe there is only one correct solution to a financial problem.
- focus solely on price without considering value, quality or personal needs.
- overlook important information or constraints when planning a solution.
- accept their first answer without evaluating whether it is practical or reasonable.

Real-world connections

People use mathematical modelling when planning budgets, comparing products, organising events, choosing between purchasing options and making financial decisions. These situations require careful analysis, mathematical reasoning and informed judgement.

Professional practice

Present students with authentic, open-ended financial investigations that encourage discussion, collaboration and justification of different solutions. Emphasise that mathematical modelling involves making assumptions, evaluating alternatives and refining solutions rather than simply finding a single correct answer.



Classroom implementation

Classroom activities

- Plan a class celebration using a fixed budget by comparing prices, selecting items and justifying purchasing decisions.
- Compare similar products to determine which offers the best value for money, considering price, quantity and quality.
- Investigate several purchasing options for a shopping list and recommend the most suitable choice based on a given budget.
- Create a savings plan for a personal goal by estimating income, planned savings and the time required to reach the target.
- Solve an open-ended financial problem where more than one solution is possible, then compare and justify different approaches.
- Use digital catalogues, supermarket websites or online shopping tools to investigate prices, model financial decisions and communicate recommendations.

Building mathematical and financial language

- mathematical model
- budget
- constraint
- compare
- decision
- strategy
- estimate
- value for money
- justify
- evaluate
- recommendation
- evidence

Assessment opportunities

- Identify the relevant information needed to solve a practical financial problem.
- Select and apply appropriate mathematical strategies.
- Represent financial situations using number sentences, tables, diagrams or digital tools.
- Interpret solutions in the context of the financial situation.
- Evaluate alternative solutions using mathematical evidence.
- Justify financial decisions using appropriate mathematical and financial language.

Differentiation

Support

- Provide planning templates that guide students to identify the important information, choose appropriate operations, represent the problem and evaluate whether the solution is reasonable.
- Use visual organisers, tables or digital tools to support students in comparing financial options and recording their thinking.

Extension

- Challenge students to investigate several financial options with different constraints, evaluate the advantages and disadvantages of each, and recommend the best solution using mathematical evidence.
- Ask students to design and present their own financial investigation, explaining their assumptions, mathematical modelling process and final recommendation.

WA Financial Mathematics Curriculum

Identify features of budgets and create a simple budget, comparing prices where possible.

Students identify the features of a budget and develop simple budgets by estimating income and expenses, comparing prices and making informed spending decisions. They learn that budgeting helps people plan how money will be used to achieve financial goals.



Marshmallow Money Connections

Student books

- **Saving** – selected pages exploring why people save (p. 18), setting savings goals (pp. 19–24), and making informed decisions about spending and saving (pp. 22–23).
- **Spending** – selected pages exploring needs and wants (pp. 10–11), spending decisions (pp. 12–19), smart shopping (pp. 31–40), and budgeting (pp. 41–47).

Educator Support Pack

- **Saving** (teacher discretion for Year 5)
 - Worksheet 1 – explores why people save, opportunity cost, and the difference between spending and saving through real-life scenarios.
 - Worksheet 2 – applies saving concepts by setting goals, considering trade-offs and developing strategies to achieve a savings target.
 - Worksheet 3 – guides students to develop a personal savings goal and saving plan by estimating costs, tracking progress and identifying strategies for successful saving.
- **Spending** (teacher discretion for Year 5)
 - Worksheet 1 – students distinguish between needs and wants, explore influences on spending, and reflect on planned and impulse purchasing decisions.
 - Worksheet 2 – students analyse realistic spending scenarios, compare purchasing choices, consider opportunity cost, and justify informed financial decisions.
 - Worksheet 4 – students compare prices, calculate discounts, evaluate multi-buy offers, investigate unit pricing and consider the ongoing cost of subscriptions.

Suggested classroom connections

- Develop a simple budget for a personal savings goal or classroom event.
- Compare the prices of similar products and explain which represents the best value for money.
- Investigate shopping catalogues to identify genuine bargains and discuss whether discounted items should always be purchased.
- Use unit pricing to compare products of different sizes.
- Discuss how budgeting and thoughtful spending support short- and long-term financial goals.

Year 6

During Year 6, students apply mathematics to increasingly sophisticated financial situations. They work with percentages, rational numbers and mathematical modelling to solve practical problems involving budgeting, saving, spending and informed financial decision-making.

Students investigate authentic scenarios that require them to compare options, plan budgets, calculate discounts, evaluate value for money and justify their decisions using mathematical evidence. They develop confidence in selecting efficient calculation strategies, interpreting financial information, evaluating alternative solutions and communicating recommendations that are both mathematically accurate and financially realistic.

Curriculum milestone

Students solve increasingly complex financial problems involving budgets, discounts, percentages and multi-step financial calculations. They begin evaluating financial choices using mathematical evidence and logical reasoning.

Year 6 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M6N01	Integers in financial contexts	Credits, debits, account balances, profit and loss
AC9M6N07	Fractions, decimals and percentages of quantities	Discounts, GST, savings, comparing prices
AC9M6N08	Estimation and reasonableness in financial contexts	Budgets, receipts, checking calculations
AC9M6N09	Mathematical modelling in financial contexts	Budgeting, savings plans, earning money, purchasing decisions
AC9M6M03	Interpret timetables and itineraries to plan activities and journeys	Planning holidays or excursions, comparing transport options and managing travel costs within a budget.

Looking ahead

In Year 7, students begin applying mathematics to more complex personal finance situations using integers, percentages, ratios and data. They investigate authentic contexts that require critical thinking, financial reasoning and the evaluation of alternative solutions, preparing them for the increasingly sophisticated financial mathematics encountered throughout secondary school.

The mathematical knowledge and financial capability developed throughout the primary years provide a strong foundation for secondary school mathematics. Students are well prepared to investigate concepts such as interest, taxation, budgeting, investing and financial planning, applying mathematics with increasing independence, confidence and critical thinking.



AC9M6N01

Recognise situations, including financial contexts, that use integers; locate and represent integers on a number line and as coordinates on the Cartesian plane.

Teaching focus

Support students to understand that integers include positive numbers, negative numbers and zero, and that they are used to represent real-world situations involving gains, losses and changes in value. Students apply integers to authentic financial contexts such as account balances, credits, debits, profit and loss.

What students are learning

Students recognise, represent and compare positive and negative integers in practical situations. They interpret integers in financial contexts, using positive numbers to represent gains, deposits or profits and negative numbers to represent losses, withdrawals or debts. Students explain the meaning of integers and use them to solve simple real-world problems.

Why this matters

Integers are used in many everyday financial situations. Bank account balances, business profits and losses, loans and credit, and changes in investment values can all be represented using positive and negative numbers. Understanding integers helps students interpret financial information accurately and prepares them for more complex financial concepts they will encounter in secondary school and adult life.

Common misconceptions

Students may:

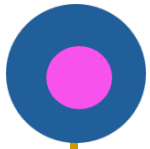
- assume negative numbers are always "bad" rather than understanding they describe a position or change.
- confuse the sign of an integer with the size of the value (for example, believing -20 is greater than -5).
- think a bank account balance can never be negative.
- confuse deposits and withdrawals when interpreting account transactions.

Real-world connections

Integers are used to represent bank balances, profits and losses, debts, credits, debits and changes in investment values. Understanding how positive and negative numbers work enables students to interpret financial information and make sense of situations where values increase or decrease.

Professional practice

Use authentic financial examples that are meaningful to students, such as bank statements, savings records or simple business scenarios. Encourage students to explain what positive and negative values represent in context, rather than focusing solely on calculation procedures. Emphasise that the meaning of an integer depends on the situation it represents.



Classroom implementation



Classroom activities

- Record a series of bank account transactions using positive and negative integers to represent deposits, withdrawals and refunds.
- Compare daily profit and loss figures for a small business and interpret what the positive and negative values represent.
- Track changes in the value of a fictional investment portfolio over several days using a number line to show gains and losses.
- Investigate how deposits, withdrawals, purchases and refunds affect an account balance by recording each transaction as a positive or negative number.
- Create real-world financial scenarios that use positive and negative integers, then exchange scenarios with a partner to interpret and solve.
- Analyse a sequence of account transactions to explain how the balance changes over time and identify the final account balance.

Building mathematical and financial language

- integer
- positive
- negative
- zero
- deposit
- withdrawal
- credit
- debit
- profit
- loss
- balance
- transaction

Assessment opportunities

- Identify situations where integers are used in financial contexts.
- Interpret positive and negative values in account balances and financial transactions.
- Represent gains, losses, credits and debits using appropriate integers.
- Explain how financial transactions affect an account balance.
- Solve practical problems involving changes in financial value using integers.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Use number lines, account balance diagrams and transaction cards to model how positive and negative integers represent financial changes.
- Begin with simple sequences of deposits and withdrawals before introducing multiple transactions and changing balances.

Extension

- Challenge students to analyse a sequence of financial transactions, predict the final account balance and justify their reasoning.
- Ask students to design a simple business or investment scenario involving profits, losses, credits and debits, then explain how integers are used to represent changes in financial position.



AC9M6N07

Solve problems that require finding a familiar fraction, decimal or percentage of a quantity, including percentage discounts, choosing efficient calculation strategies and using digital tools where appropriate.

Teaching focus

Support students to develop flexible strategies for finding fractions, decimals and percentages of quantities. Students apply these concepts to authentic financial situations, strengthening their understanding of proportional reasoning while solving practical problems involving discounts, savings and value for money.

What students are learning

Students calculate fractions, decimals and percentages of whole numbers and quantities using efficient mental, written and digital strategies where appropriate. They apply these skills to solve practical problems and explain the relationships between fractions, decimals and percentages in a variety of contexts.

Why this matters

Fractions, decimals and percentages are used every day in financial decision-making. Whether calculating discounts during a sale, understanding GST, comparing savings, interpreting interest rates or analysing financial information, students need to recognise how these representations describe the same quantity in different ways. Developing confidence with these concepts enables students to make informed financial decisions throughout their lives.

Common misconceptions

Students may:

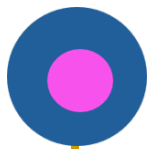
- believe percentages and decimals are unrelated concepts.
- calculate the percentage rather than the final sale price.
- assume the largest percentage discount always represents the best value without considering the original price.
- confuse GST with a discount or additional fee applied inconsistently.

Real-world connections

Fractions, decimals and percentages are used when shopping, reading catalogues, comparing discounts, understanding taxes, interpreting financial information and planning savings. These skills help people evaluate financial information accurately and make informed purchasing decisions.

Professional practice

Use authentic retail catalogues, online shopping websites, supermarket specials and receipts to demonstrate how fractions, decimals and percentages are used in everyday financial situations. Encourage students to compare different strategies, explain their reasoning and justify which purchasing option provides the best overall value rather than simply calculating an answer.



Classroom implementation

Classroom activities

- Calculate the final price of products after applying percentage discounts and compare the savings achieved.
- Compare different sale offers to determine which provides the best value for money, considering both the original price and the percentage discount.
- Investigate how GST contributes to the total purchase price by examining everyday shopping receipts and calculating the GST component.
- Explore savings goals by calculating fractions, decimals and percentages of a target amount and comparing progress over time.
- Match equivalent fractions, decimals and percentages to real-world financial situations, such as discounts, savings or taxes.
- Analyse retail advertisements or online shopping catalogues to evaluate promotional offers and justify which option provides the greatest overall value.

Building mathematical and financial language

- fraction
- decimal
- percentage
- equivalent
- discount
- GST
- original price
- sale price
- savings
- value for money
- compare
- strategy

Assessment opportunities

- Calculate familiar fractions, decimals and percentages of quantities accurately.
- Explain the relationships between equivalent fractions, decimals and percentages.
- Determine final prices after applying discounts or GST.
- Compare purchasing options using percentage calculations and proportional reasoning.
- Evaluate financial offers using mathematical evidence.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Use visual models such as fraction walls, hundred grids and decimal grids to demonstrate equivalent representations before applying them to financial situations.
- Begin with benchmark percentages such as 10%, 25%, 50% and 75% before introducing less familiar values.

Extension

- Challenge students to compare multiple retail offers involving discounts, GST and different original prices to determine the best overall value for money.
- Ask students to investigate a real shopping receipt or catalogue, explain how fractions, decimals and percentages are used, and justify purchasing recommendations using mathematical evidence.



AC9M6N08

Approximate numerical solutions to problems involving rational numbers and percentages, including financial contexts, using appropriate estimation strategies.

Teaching focus

Support students to use estimation as a practical strategy for approximating numerical solutions and checking the reasonableness of answers. Students apply estimation when working with rational numbers and percentages in authentic financial situations, developing confidence in judging whether calculations and financial decisions are realistic.

What students are learning

Students use estimation strategies to approximate solutions involving fractions, decimals and percentages before and after performing calculations. They apply these strategies to financial situations such as shopping, budgeting and comparing prices, recognising that estimation is an important tool for checking the accuracy and reasonableness of answers.

Why this matters

People use estimation every day when making financial decisions. Before purchasing an item, they estimate the total cost, judge whether they have enough money, compare prices and check whether discounts or calculations are reasonable. Strong estimation skills help students identify errors, avoid overspending and make informed financial decisions with confidence.

Common misconceptions

Students may:

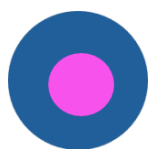
- think estimation is simply guessing rather than a mathematical strategy.
- believe exact calculations are always necessary before making a decision.
- rely solely on calculators without considering whether an answer is reasonable.
- underestimate the importance of estimation in everyday financial situations.

Real-world connections

People estimate shopping totals, compare prices, judge discounts, plan budgets and check receipts before making financial decisions. Estimation also helps identify calculation errors and supports more confident spending and saving decisions.

Professional practice

Encourage students to estimate before calculating and to revisit their estimate after obtaining an exact answer. Ask questions such as *"Does this answer seem reasonable?"*, *"What did you expect the answer to be?"* and *"How could estimation help you check your calculation?"* to develop mathematical reasoning and financial judgement.



Classroom implementation



Classroom activities

- Estimate the total cost of a shopping basket before calculating the exact amount using fractions, decimals or percentages where appropriate.
- Estimate the value of a percentage discount before calculating the precise saving and final sale price.
- Compare estimated and actual costs when planning an event or excursion within a fixed budget.
- Analyse supermarket catalogues or online advertisements to judge whether advertised discounts appear reasonable before completing exact calculations.
- Investigate financial calculations containing deliberate errors and explain how estimation helps identify the mistake.
- Compare different estimation strategies and discuss which is most appropriate for checking shopping totals, budgets or percentage calculations.

Building mathematical and financial language

- estimate
- approximate
- reasonable
- rational number
- percentage
- discount
- budget
- total cost
- round
- compare
- strategy
- calculation

Assessment opportunities

- Estimate solutions involving fractions, decimals and percentages.
- Explain why an estimated answer is reasonable.
- Use estimation to check financial calculations involving shopping, budgets or discounts.
- Identify errors in shopping totals, percentage calculations or budgets.
- Select appropriate estimation strategies for different financial situations.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Model estimation using rounded values, benchmark percentages and visual representations before introducing more complex financial calculations.
- Encourage students to estimate one part of a calculation at a time before combining estimates to judge the overall reasonableness of an answer.

Extension

- Challenge students to compare several estimation strategies for the same financial problem and justify which provides the most useful approximation.
- Ask students to investigate a real budget, shopping receipt or promotional advertisement, identify any unreasonable calculations or claims, and explain how estimation supports informed financial decision-making.



AC9M6N09

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.

Teaching focus

Support students to apply mathematical modelling to investigate, represent and solve authentic financial problems. Students use mathematical reasoning to plan, compare, evaluate and justify decisions, drawing on their understanding of number, percentages, estimation and efficient calculation strategies.

What students are learning

Students use mathematical modelling to solve practical problems by identifying relevant information, making assumptions, selecting appropriate mathematical strategies, interpreting results and evaluating the reasonableness of their solutions. They apply these processes to financial situations such as budgeting, planning savings goals, comparing purchasing options and making informed consumer decisions.

Why this matters

Real-life financial decisions rarely involve a single calculation. People often compare options, work within a budget, balance competing priorities and make decisions based on available information. Mathematical modelling helps students develop the confidence to analyse financial situations, evaluate alternatives and make well-reasoned decisions that reflect both mathematical understanding and practical judgement.

Common misconceptions

Students may:

- believe that financial problems have only one correct solution.
- focus solely on price without considering quality, needs or long-term value.
- overlook important information or constraints when developing a financial plan.
- accept the first solution without reviewing whether it is practical, realistic or achievable.

Real-world connections

Mathematical modelling is used whenever people plan a budget, save for a goal, compare products, organise events or make significant purchasing decisions. It enables individuals to evaluate alternatives, consider trade-offs and make informed financial choices based on evidence.

Professional practice

Provide students with authentic, open-ended financial investigations that encourage discussion, collaboration and justification of different solutions. Emphasise that mathematical modelling is an iterative process; students should make assumptions, test ideas, evaluate outcomes and refine their solutions as new information becomes available. Encourage multiple solution pathways and recognise that different decisions may be equally valid when supported by sound mathematical reasoning.



Classroom implementation



Classroom activities

- Create a savings plan to achieve a personal financial goal within a specified timeframe, explaining how the plan could be adjusted if circumstances change.
- Develop a budget for a class event by comparing costs, prioritising spending and justifying purchasing decisions within a fixed budget.
- Compare different purchasing options by considering price, quality, quantity and value for money, then recommend the most suitable option for a given scenario.
- Investigate how changing one variable, such as income, expenses or savings, affects the outcome of a financial plan and discuss the trade-offs involved.
- Solve an open-ended financial investigation where more than one solution is possible, then evaluate and justify the preferred approach using mathematical evidence.
- Use digital tools such as spreadsheets or online shopping websites to model financial scenarios, compare options and present recommendations.

Building mathematical and financial language

- mathematical model
- budget
- savings goal
- income
- expense
- constraint
- assumption
- strategy
- evaluate
- justify
- evidence
- recommendation

Assessment opportunities

- Identify the relevant information needed to solve a practical financial problem.
- Select and apply appropriate mathematical strategies.
- Develop and communicate a financial plan supported by mathematical evidence.
- Evaluate alternative solutions and explain the advantages and limitations of each.
- Justify financial decisions using clear mathematical reasoning.
- Communicate solutions using appropriate mathematical and financial language.

Differentiation

Support

- Provide structured planning templates that guide students to identify key information, make assumptions, select strategies and evaluate whether their solution is realistic.
- Use tables, graphic organisers or spreadsheets to help students organise information and compare financial options.

Extension

- Challenge students to investigate a complex financial scenario with multiple constraints, evaluate several possible solutions and recommend the most appropriate course of action using mathematical evidence.
- Ask students to design and present their own financial investigation, explaining their assumptions, modelling process, calculations and final recommendations to an audience.



AC9M6M03

Interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys.

Teaching focus

Support students to interpret and use timetables and itineraries to plan activities and journeys while considering time, cost and other practical constraints. Students apply mathematical reasoning to compare options, manage budgets and make informed decisions in authentic planning situations.

What students are learning

Students interpret timetables, schedules and itineraries to plan activities and travel. They calculate elapsed time, compare travel options, consider costs and use mathematical reasoning to develop practical plans that meet specific requirements and constraints.

Why this matters

Planning a journey or event often involves more than reading a timetable. People compare transport options, consider travel times, work within a budget and balance competing priorities such as convenience, cost and available time. These skills help students apply mathematics to real-life situations where thoughtful planning leads to better financial and practical decisions.

Common misconceptions

Students may:

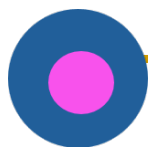
- focus only on the lowest cost without considering travel time or practicality.
- overlook important timetable details such as departure and arrival times.
- assume there is only one correct travel plan rather than recognising multiple valid solutions.
- fail to consider how changing one part of a plan can affect the overall itinerary or budget.

Real-world connections

People use timetables and itineraries when planning holidays, school excursions, sporting events and everyday travel. These situations require them to balance time, cost and personal priorities while making informed financial decisions.

Professional practice

Provide students with authentic planning tasks that require them to interpret real timetables, compare travel options and justify their decisions. Encourage discussion about the trade-offs involved in planning, recognising that the cheapest option is not always the best choice and that successful planning often requires balancing multiple factors.



Classroom implementation



Classroom activities

- Plan a day trip using public transport timetables while staying within a specified budget and meeting a set arrival time.
- Compare the cost, travel time and convenience of different transport options, then recommend the most suitable choice for a given scenario.
- Develop an itinerary for a family holiday by considering transport, accommodation, activities, travel times and overall costs.
- Plan a class excursion by calculating travel times, ticket prices and total expenses, ensuring the plan meets time and budget constraints.
- Investigate how changing one element of an itinerary, such as the departure time, transport type or accommodation, affects the overall schedule and budget.
- Use online timetables, maps or journey planners to compare travel options and justify recommendations using mathematical evidence.

Building mathematical and financial language

- timetable
- itinerary
- elapsed time
- schedule
- budget
- transport
- accommodation
- journey
- cost
- compare
- constraint
- recommendation

Assessment opportunities

- Interpret information accurately from timetables and itineraries.
- Plan activities or journeys that meet given time and budget constraints.
- Compare travel options using mathematical evidence.
- Evaluate trade-offs between cost, time and convenience.
- Justify planning decisions using appropriate mathematical reasoning.
- Communicate plans using appropriate mathematical and financial language.

Differentiation

Support

- Provide partially completed timetables, planning templates or budget tables to help students organise information and compare options.
- Use visual timelines, maps or journey planners to support students in calculating elapsed time and sequencing events.

Extension

- Challenge students to design a multi-day itinerary with a fixed budget, balancing transport, accommodation and activity costs while meeting specified constraints.
- Ask students to investigate several travel options, evaluate the advantages and disadvantages of each, and present a recommendation supported by mathematical evidence.

WA Financial Mathematics Curriculum

Create a plan for a savings goal, predict expenses and identify that saving money with a bank attracts interest.

Students create a plan to achieve a savings goal by estimating costs, predicting future expenses and identifying strategies to save regularly. They recognise that banks pay interest on savings, helping money grow over time, and begin to understand how planning ahead supports informed financial decision-making



Student books

- **Saving** – selected pages exploring why people save (p. 18), setting savings goals (pp. 19–24), simple and compound interest (pp. 25–36), and inflation (pp. 37–39).
- **Spending** – selected pages exploring spending influences (pp. 12–19), prices (pp. 20–30), smart shopping (pp. 31–40), budgeting (pp. 41–47), and comparing payment methods (pp. 48–57).

Educator Support Pack

Saving (teacher discretion for Year 6)

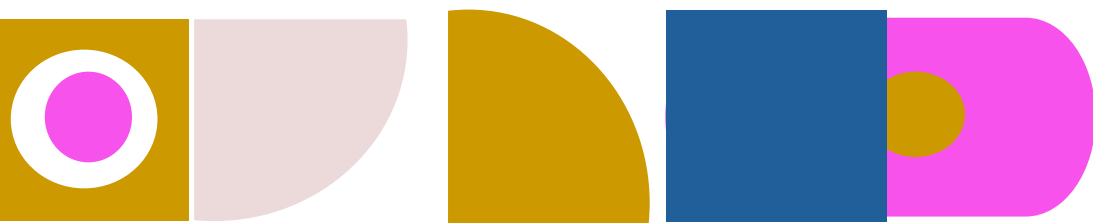
- **Worksheet 2** – students apply saving concepts by setting goals, considering trade-offs and developing strategies to achieve a savings target.
- **Worksheet 3** – students develop a personal savings goal and saving plan by estimating costs, tracking progress and identifying strategies for successful saving.
- **Worksheet 4** – students interpret bank statements, investigate bank fees, compare simple and compound interest, and explore the effect of inflation on savings.

Spending (teacher discretion for Year 6)

- **Worksheet 2** – students analyse realistic spending scenarios, compare purchasing choices, consider opportunity cost, and justify informed financial decisions.
- **Worksheet 4** – students compare prices, calculate discounts, evaluate multi-buy offers, investigate unit pricing, and consider the ongoing cost of subscriptions.

Suggested classroom connections

- Create a savings plan for a personal goal by estimating costs, predicting future expenses and setting a realistic timeframe.
- Compare savings accounts to investigate how interest helps money grow over time.
- Develop a simple budget that balances income, spending and saving for a future purchase.
- Compare the total cost of products by considering price, value for money and payment options.
- Investigate how different spending decisions affect progress towards a savings goal.



Excursion Connection: Following the journey of money at the Royal Australian Mint

Each year, around **65,000 Year 6 students** visit the Royal Australian Mint to explore Australia's coins, banknotes and the role of currency in society. The *Saving* book complements this experience by helping students understand the complete journey of money - from its origins and production through to saving, banking and everyday use. Together, the excursion and classroom learning provide a rich introduction to Australia's monetary system and the role money plays in everyday life.

Before the visit: Where does money come from?

Use the *Saving* book to introduce:

- **The characteristics and functions of money** (pp. 9–10).
- **The evolution of money in Australia**, including a historical timeline (pp. 11–13).
- **First Nations trade and exchange** before European settlement (pp. 13–14).
- **How Australia's banknotes are printed and coins are minted** (pp. 14–15).

After the visit: Following the journey of money

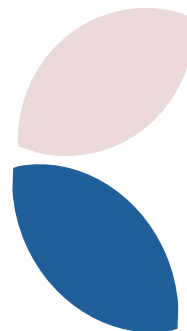
Extend students' understanding by exploring how money moves through the Australian economy:

- **Why people save** and how savings goals influence financial decisions (pp. 18–24).
- **How savings grow**, including simple and compound interest (pp. 25–29).
- **Ways to save**, comparing different saving strategies (pp. 30–31).
- **Do we still need cash?** (p. 32), encouraging discussion about cash, cards and digital payments.
- **The role of banks, credit unions and building societies** in distributing, storing and managing money after it leaves the Royal Australian Mint, including how money reaches ATMs, businesses and consumers (pp. 33–38).
- **Keeping our money safe**, including protecting money, bank accounts and personal financial information (pp. 39–41).

Bringing the learning together

Encourage students to map the journey of money by asking questions such as:

- Where does Australia's money come from?
- How does money travel from the Royal Australian Mint to people and businesses?
- What role do banks, credit unions and building societies play?
- How do people save, spend and protect their money?
- How is the way we use money changing in a digital world?



Year 7

Year 7 marks an important transition as students begin applying mathematics to increasingly complex financial situations. They apply rational numbers, percentages, ratios and mathematical modelling to investigate authentic financial problems, interpret financial information and make informed decisions based on mathematical evidence.

Students explore contexts such as budgeting, discounts, wages, taxes, consumer choices and financial planning. They compare options, evaluate value for money, interpret gains and losses, and justify their decisions using appropriate mathematical reasoning. Through these experiences, students develop the confidence to analyse financial information critically, evaluate alternative solutions and recognise how mathematics supports informed financial decision-making.

Curriculum milestone

Students transition from learning about money to using mathematics to analyse financial situations. Financial investigations become more sophisticated, drawing on proportional reasoning, percentages, ratios and data analysis.

Year 7 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M7N07	Integers	Credits, debits, profit and loss, account balances
AC9M7N06	Rational numbers, fractions, decimals and percentages	Discounts, GST, wages, comparing prices
AC9M7N08	Ratios	Unit pricing, fuel consumption, exchange rates, value for money
AC9M7N09	Mathematical modelling in financial contexts	Budgeting, financial planning, consumer decision-making
AC9M7M06	Mathematical modelling using ratios	Travel planning, event budgeting, comparing costs, time and alternative options

Looking ahead

In Year 8, students continue to extend their mathematical reasoning by applying proportional reasoning, algebra and mathematical modelling to increasingly complex financial situations. They compare financial options, interpret quantitative information and evaluate alternative solutions, strengthening the knowledge, skills and confidence needed to make informed financial decisions in everyday life and preparing them for the more advanced personal finance concepts explored in the later secondary years.



AC9M7N06

Use the 4 operations with positive rational numbers including fractions, decimals and percentages to solve problems using efficient calculation strategies.

Teaching focus

Students apply the four operations with fractions, decimals and percentages to solve authentic financial problems. They calculate discounts, compare prices, estimate taxes, interpret wages and commissions, and use mathematical reasoning to evaluate financial choices in everyday situations.

What students are learning

Students develop fluency in calculating with positive rational numbers while applying their skills to practical financial contexts. They solve problems involving percentages, decimals and fractions to compare value for money, calculate discounts, determine tax amounts, interpret payslips, and make informed purchasing decisions. Students also justify their solutions and select efficient strategies for solving multi-step financial problems.

Why this matters

Fractions, decimals and percentages underpin many everyday financial decisions. Whether comparing prices, calculating discounts, understanding taxes, interpreting wages or evaluating savings, students rely on these mathematical concepts to make informed choices. Developing confidence with rational numbers helps students become more capable consumers and prepares them for increasingly sophisticated financial decisions in later schooling and adult life.

Common misconceptions

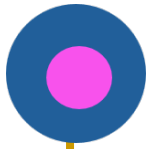
- Assuming multiple percentage changes can be added rather than calculated sequentially.
- Confusing percentage discounts with the final purchase price.
- Believing a larger percentage discount always represents the better value without considering the original price.
- Misinterpreting decimals and percentages as different quantities rather than equivalent representations.
- Forgetting to include GST or other costs when comparing prices.

Real-world connections

Students use fractions, decimals and percentages whenever they compare prices, calculate discounts, understand taxes, interpret payslips, evaluate savings, or make purchasing decisions. These skills support informed financial decision-making across a wide range of everyday situations.

Professional practice

Use authentic financial materials such as shopping catalogues, supermarket advertisements, online retail pricing, payslips and invoices to create meaningful learning experiences. Encourage students to compare multiple solution strategies, estimate answers before calculating, and justify which financial option represents the best value based on mathematical evidence.



Classroom implementation



Classroom activities

- Calculate discounts during a retail sale and compare the final prices of different products to determine the best value for money.
- Determine the GST component of everyday purchases and explain how it contributes to the total price.
- Compare unit prices for similar grocery or household products to identify the most economical option.
- Calculate wages for different numbers of hours worked, including simple overtime or penalty rate scenarios where appropriate.
- Develop a savings plan by calculating weekly or monthly contributions needed to achieve a financial goal within a specified timeframe.
- Compare mobile phone plans, streaming subscriptions or other everyday services by analysing costs, inclusions and overall value.

Building mathematical and financial language

- fraction
- decimal
- percentage
- discount
- GST
- wage
- income
- unit price
- value for money
- estimate
- financial plan
- comparison

Assessment opportunities

- Solve multi-step financial problems involving fractions, decimals and percentages.
- Calculate discounts, GST and wages accurately.
- Compare products or services using mathematical evidence.
- Select efficient calculation strategies and explain why they are appropriate.
- Evaluate financial options to determine value for money.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide worked examples, visual models and structured problem-solving templates to support multi-step financial calculations.
- Encourage students to estimate answers before calculating exact values and use digital tools to verify their solutions.

Extension

- Challenge students to compare several financial options involving discounts, GST, wages or service plans and recommend the best choice using mathematical evidence.
- Ask students to investigate a real consumer scenario, such as planning a purchase or comparing subscription plans, and present a written recommendation supported by accurate calculations and financial reasoning.



AC9M7N07

Compare, order and solve problems involving addition and subtraction of integers.

Teaching focus

Students use integers to represent and solve problems involving gains and losses, credits and debits, and changes in financial position. They compare, order and calculate with positive and negative numbers in authentic financial contexts, developing an understanding of how integers are used to record and communicate financial information.

What students are learning

Students learn to interpret and perform calculations involving positive and negative integers to solve practical financial problems. They investigate how deposits and withdrawals affect bank balances, calculate profits and losses in business scenarios, and analyse changes in financial position. These experiences strengthen students' understanding of integers while demonstrating their importance in everyday financial decision-making.

Why this matters

Integers are widely used in financial contexts to represent money moving in and out of accounts, business profits and losses, investment gains and declines, and changes in personal wealth. Developing confidence with positive and negative numbers enables students to interpret financial information accurately and make informed decisions based on numerical evidence.

Common misconceptions

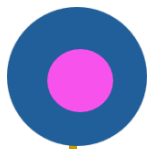
- Assuming negative numbers always represent debt rather than any decrease or reduction.
- Confusing deposits with withdrawals when calculating account balances.
- Believing a financial loss means money has physically disappeared rather than representing a reduction in value or income.
- Forgetting that the order of operations affects calculations involving positive and negative numbers.

Real-world connections

Students encounter integers whenever they check a bank balance, review transaction histories, monitor profits and losses, or follow changes in investment values. Understanding positive and negative numbers helps them interpret financial information accurately and make sense of how money changes over time.

Professional practice

Provide students with authentic financial records such as bank statements, transaction histories, investment summaries or business accounts. Encourage students to explain the meaning of positive and negative values within each context, rather than simply performing calculations. Classroom discussions should emphasise that integers communicate changes in financial position and support informed decision-making.



Classroom implementation



Classroom activities

- Record a series of deposits, withdrawals and refunds to calculate the balance of a bank account after multiple transactions.
- Investigate business scenarios involving profits, losses, income and expenses to determine overall financial performance.
- Analyse changes in the value of savings or a fictional investment portfolio over time, representing gains and losses with positive and negative integers.
- Track income and expenses over a week or month to determine whether a budget finishes with a surplus or deficit.
- Compare the financial position of two individuals or businesses using account balances, profits and losses, then justify which has the stronger financial position.
- Create and solve real-world financial scenarios involving integer calculations, then explain how positive and negative values represent changes in financial position.

Building mathematical and financial language

- positive
- negative
- credit
- debit
- deposit
- withdrawal
- balance
- profit
- loss
- surplus
- deficit

Assessment opportunities

- Compare, order and calculate with positive and negative integers in financial contexts.
- Interpret account balances, credits, debits, profits and losses accurately.
- Solve multi-step financial problems involving integer calculations.
- Explain how financial transactions affect overall financial position.
- Justify solutions using mathematical evidence and reasoning.
- Communicate mathematical thinking using appropriate mathematical and financial language.

Differentiation

Support

- Use number lines, transaction records and balance tables to model the effect of positive and negative integers in financial situations.
- Begin with simple sequences of financial transactions before progressing to multi-step problems involving several credits and debits.

Extension

- Challenge students to analyse a series of financial transactions, identify patterns in changing balances and explain how different decisions affect the final financial position.
- Ask students to investigate a small business or household budget scenario involving income, expenses, profits and losses, then present recommendations supported by mathematical evidence.



AC9M7N08

Recognise, represent and solve problems involving ratios.

Teaching focus

Students use ratios to compare quantities and solve practical problems in financial contexts. They apply proportional reasoning to evaluate value for money, compare products and services, interpret rates, and make informed consumer decisions based on mathematical evidence.

What students are learning

Students develop an understanding of ratios as a way of comparing two or more quantities. They apply ratio reasoning to investigate authentic financial situations, such as comparing unit prices, analysing fuel consumption, interpreting exchange rates, evaluating mobile phone plans, and selecting products or services that offer the best value. Through these experiences, students strengthen their proportional reasoning while learning to justify financial decisions using mathematics.

Why this matters

Ratio reasoning is central to many everyday financial decisions. Consumers regularly compare prices, quantities, service plans and rates to determine value for money. Developing confidence with ratios enables students to evaluate options critically, avoid misleading comparisons, and make informed purchasing decisions based on evidence rather than assumptions.

Common misconceptions

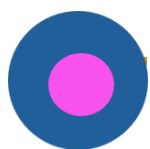
- Assuming the cheapest item always represents the best value.
- Comparing prices without considering differences in quantity or size.
- Confusing ratios with fractions or percentages without recognising their different purposes.
- Believing that buying in bulk always saves money, regardless of need or product price.

Real-world connections

Students use ratios whenever they compare supermarket prices, choose mobile phone plans, evaluate fuel efficiency, interpret exchange rates or assess product value. Understanding ratios helps them make informed consumer choices and recognise how mathematics supports everyday financial decision-making.

Professional practice

Provide students with authentic pricing information from supermarkets, online retailers, telecommunications providers and travel websites. Encourage students to justify their conclusions using ratio reasoning and discuss how businesses present pricing information to influence consumer choices. Highlight that the lowest price is not always the best value.



Classroom implementation



Classroom activities

- Compare unit prices to determine which supermarket product offers the best value for money.
- Investigate fuel consumption (litres per 100 kilometres) to compare the running costs of different vehicles.
- Compare mobile phone or subscription plans by analysing monthly costs, inclusions and overall value.
- Use exchange rates to estimate the cost of purchases when travelling overseas and compare the value of different currencies.
- Analyse bulk-buy offers to determine whether purchasing larger quantities always represents better value for money.
- Design a consumer comparison guide that evaluates two or more products or services using ratio reasoning and mathematical evidence.

Building mathematical and financial language

- ratio
- rate
- unit price
- value for money
- equivalent ratio
- fuel consumption
- exchange rate
- compare
- quantity
- proportion
- subscription
- recommendation

Assessment opportunities

- Compare products using unit pricing and ratio reasoning.
- Evaluate products or services using proportional reasoning.
- Interpret exchange rates, fuel consumption or other rates in practical contexts.
- Solve problems involving equivalent ratios.
- Recommend the best value option using mathematical evidence.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Use tables, ratio diagrams and worked examples to help students compare quantities and identify equivalent ratios before applying them to financial situations.
- Begin with familiar comparisons, such as supermarket unit prices, before introducing more complex contexts such as exchange rates or fuel consumption.

Extension

- Challenge students to investigate several consumer products or service plans with different pricing structures and recommend the best option using ratio reasoning and supporting calculations.
- Ask students to design a consumer advice guide that compares real products or services, explains the mathematical evidence and justifies recommendations for different consumer needs.



AC9M7N09

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.

Teaching focus

Students apply mathematical modelling to investigate authentic financial situations involving rational numbers and percentages. They identify relevant information, make assumptions, perform calculations, interpret results and evaluate solutions to support informed financial decision-making.

What students are learning

Students develop the ability to use mathematics to solve realistic financial problems. They create and evaluate budgets, compare purchasing options, investigate savings goals, analyse the impact of discounts and taxes, and justify financial decisions using mathematical evidence. Students also reflect on the assumptions and limitations of their models, recognising that financial decisions often involve multiple factors beyond simple calculations.

Why this matters

Real-world financial decisions rarely involve a single calculation. People must gather information, compare alternatives, estimate costs, evaluate risks and make decisions based on evidence. Mathematical modelling helps students develop these higher-order thinking skills, preparing them to manage increasingly complex financial situations with confidence and sound judgement.

Common misconceptions

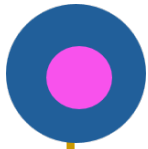
- Believing every financial problem has one correct answer.
- Ignoring assumptions or constraints when developing a mathematical model.
- Focusing only on the lowest cost rather than considering overall value or long-term outcomes.
- Accepting calculated answers without evaluating whether they are reasonable in the given context.

Real-world connections

People use mathematical modelling to plan budgets, compare financial products, estimate costs, evaluate purchases and make informed financial decisions every day. Developing these skills helps students approach financial challenges systematically, weigh alternatives and justify their decisions using evidence.

Professional practice

Present students with open-ended financial investigations that encourage multiple solution pathways. Provide authentic contexts requiring students to collect information, make assumptions, test different approaches and evaluate the strengths and limitations of their models. Encourage students to explain not only how they solved a problem, but also why they selected their approach and how different assumptions could influence the outcome.



Classroom implementation



Classroom activities

- Develop a personal budget based on a realistic income, planned expenses and a savings goal, then explain how the budget could be adjusted if circumstances change.
- Compare the total cost of purchasing a product using different pricing or payment options, then recommend the most suitable option using mathematical evidence.
- Investigate how regular savings contribute towards a short-term or long-term financial goal by modelling different contribution amounts and timeframes.
- Plan the costs associated with a school event or family outing, balancing budget constraints, priorities and trade-offs to produce a realistic financial plan.
- Evaluate alternative financial decisions involving spending, saving or budgeting, then justify which option provides the best overall outcome for the given situation.
- Use spreadsheets or other digital tools to model financial scenarios, compare assumptions and communicate recommendations supported by mathematical reasoning.

Building mathematical and financial language

- mathematical model
- budget
- assumption
- constraint
- estimate
- variable
- rational number
- percentage
- trade-off
- evaluate
- evidence
- recommendation

Assessment opportunities

- Develop and evaluate a budget for a realistic financial scenario.
- Create a mathematical model to investigate a consumer or financial decision.
- Compare financial options and justify recommendations using mathematical evidence.
- Identify assumptions, constraints and limitations within a mathematical model.
- Evaluate how changes to variables affect financial outcomes.
- Communicate mathematical reasoning using appropriate representations, mathematical language and financial evidence.

Differentiation

Support

- Provide structured modelling templates that guide students to identify relevant information, make assumptions, select strategies and evaluate whether their solution is realistic.
- Use spreadsheets, tables or graphic organisers to help students compare financial options and organise calculations before interpreting results.

Extension

- Challenge students to investigate a complex financial scenario with multiple variables and constraints, evaluate several possible solutions and recommend the most appropriate course of action using mathematical evidence.
- Ask students to design and present their own financial investigation, explaining their assumptions, modelling process, calculations and recommendations while reflecting on the strengths and limitations of their model.



AC9M7M06

Use mathematical modelling to solve practical problems involving ratios; formulate problems, interpret and communicate solutions in terms of the situation, justifying choices made about the representation.

Teaching focus

Students use ratios and mathematical modelling to investigate practical situations involving cost, time and value. They compare alternatives, interpret proportional relationships, and justify decisions using mathematical evidence in authentic financial contexts.

What students are learning

Students apply ratio reasoning to model and solve practical problems that involve comparing costs, quantities and rates. They investigate situations such as planning journeys, estimating travel costs, comparing transport options, selecting service plans and evaluating purchasing decisions. Through these experiences, students learn to identify relevant information, make reasonable assumptions and justify their decisions using mathematical evidence.

Why this matters

Many everyday financial decisions require people to compare options that involve both money and time. Whether choosing the most economical way to travel, selecting a mobile phone plan or comparing transport costs, mathematical modelling helps students evaluate alternatives and make informed decisions that balance cost, convenience and value.

Common misconceptions

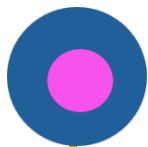
- Assuming the lowest-cost option is always the best choice without considering time, quality or other factors.
- Ignoring important assumptions or constraints when developing a mathematical model.
- Comparing options using only one measure rather than considering multiple factors.
- Believing mathematical models always produce a single "correct" solution rather than supporting informed decision-making.

Real-world connections

People regularly use mathematical modelling to compare transport options, plan journeys, choose service providers and evaluate the ongoing costs of major purchases. Understanding how to compare alternatives using ratios helps students make balanced financial decisions based on evidence, rather than assumptions or advertising.

Professional practice

Provide students with authentic scenarios that require them to balance cost, time and practicality. Encourage students to justify their recommendations using mathematical evidence and to recognise that different assumptions may lead to different, but equally reasonable, solutions. Emphasise that mathematical modelling supports decision-making rather than simply producing numerical answers.



Classroom implementation



Classroom activities

- Compare the cost, travel time and convenience of different transport options for the same journey, then recommend the most suitable choice.
- Investigate the ongoing costs of owning a car, including fuel, registration, insurance and maintenance, and compare these with public transport alternatives.
- Compare mobile phone or internet plans by analysing monthly costs, inclusions and expected usage to determine the best value for different users.
- Plan a class excursion by comparing transport options, travel times and total costs while meeting a specified budget and timetable.
- Evaluate different purchasing or travel scenarios involving multiple constraints and recommend the option that provides the best overall value.
- Use spreadsheets, online journey planners or mapping tools to model alternative scenarios and present recommendations supported by mathematical evidence.

Building mathematical and financial language

- ratio
- rate
- mathematical model
- cost
- budget
- compare
- estimate
- assumption
- constraint
- trade-off
- efficiency
- recommendation

Assessment opportunities

- Develop a mathematical model to compare practical financial options.
- Apply ratio reasoning to evaluate transport, travel or purchasing decisions.
- Explain the assumptions and constraints within a mathematical model.
- Recommend the most appropriate option using mathematical evidence.
- Evaluate how changes to one or more variables influence the outcome.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide planning templates, comparison tables and worked examples to help students organise information, identify constraints and compare alternative options.
- Use visual representations, maps or digital journey planners to support students in modelling practical situations involving cost, time and distance.

Extension

- Challenge students to investigate a complex travel or consumer scenario with multiple constraints, compare several possible solutions and recommend the most appropriate option using mathematical evidence.
- Ask students to design and present their own modelling investigation involving ratios, evaluate the strengths and limitations of their model, and reflect on how different assumptions affect the final recommendation.

WA Financial Mathematics Curriculum

Identify features of transactional statements and verify transactions. Explain reasons for checking and keeping financial records.

Students examine financial records such as bank statements, transaction histories and receipts to identify deposits, withdrawals, purchases, fees and balances. They learn how to verify transactions, recognise errors and understand why accurate financial records are important for budgeting, managing money and protecting against fraud.



Marshmallow Money Connections

Books

- **Spending** – selected pages exploring What's in a Price? (pp. 20–30), smart shopping and unit pricing (pp. 31–40), budgeting (pp. 41–47), and payment methods (pp. 48–57).
- **Saving** – selected pages exploring simple and compound interest (pp. 25–36), inflation (pp. 37–39), and banks, credit unions and building societies (pp. 33–38).
- **Tax** – selected pages exploring Australia's tax system (pp. 20–33), GST (pp. 28–31), starting work, payslips, gross and net income, PAYG withholding and tax file numbers (pp. 34–45), and keeping tax records and lodging a tax return (pp. 46–55).
- **Buying a Car** – selected pages exploring the costs of getting a licence (pp. 7–11), choosing the right car by comparing alternatives (pp. 20–31), depreciation and appreciation, and the ongoing costs of car ownership (pp. 32–46), and paying for a car and evaluating different payment options (pp. 47–58).

Worksheets

Tax (teacher discretion for Year 7)

- **Worksheet 1** – students explore why governments collect tax, how tax funds public goods and services, and the role tax plays in Australian society through scenarios and discussion.
- **Worksheet 2** – students investigate Australia's tax system by identifying different types of taxes, including GST and PAYG withholding, distinguishing between direct and indirect taxes, and interpreting everyday tax examples.

Buying a Car

- **Worksheet 1** – students investigate assets, appreciation and depreciation, and identify the ongoing costs of owning a vehicle to understand the true cost of car ownership.
- **Worksheet 2** – students compare vehicle options by evaluating purchase prices, depreciation, ongoing ownership costs and value for money, using ratios, percentages and financial reasoning to justify their decisions.
- **Worksheet 3 (optional)** – students reflect on their transport needs, anticipated ownership costs and financial priorities to evaluate when purchasing a car is an appropriate financial decision.

Suggested classroom connections

- Compare supermarket products using unit pricing to determine the best value for money.
- Calculate GST and percentage discounts to compare the total cost of everyday purchases.
- Examine a bank statement or transaction history and identify deposits, withdrawals, fees and balances.
- Match receipts and invoices to transactions on a bank statement to verify account records.
- Discuss why individuals keep financial records and how they support budgeting, tax obligations, consumer rights and identifying fraudulent transactions.
- Compare the depreciation of different vehicles by calculating changes in value over time and discuss how depreciation influences the total cost of ownership.

Year 8

In Year 8, students extend their financial mathematical thinking by applying increasingly sophisticated mathematical concepts to authentic financial situations. They apply rational numbers, percentages, ratios, rates, algebra and mathematical modelling to investigate financial problems, analyse data and justify informed decisions based on mathematical evidence.

Students explore contexts such as budgeting, earning and managing income, comparing financial products and services, interpreting financial information, analysing consumer data, and evaluating the ongoing costs of purchases and financial commitments. They develop an understanding of how mathematical relationships can be used to predict outcomes, compare alternatives, evaluate ongoing financial commitments and support effective financial planning.

Curriculum milestone

Students begin critically evaluating financial products, payment methods and ongoing financial commitments. Mathematics supports comparisons of value, fees, interest and consumer choices, helping students become more informed financial decision-makers.

Year 8 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M8N04	Use the four operations with integers and rational numbers to solve problems	Budgets, discounts, GST, wages, profit and loss, household expenses
AC9M8N05	Use mathematical modelling to solve practical problems involving rational numbers and percentages, including financial contexts	Budgeting, savings goals, consumer decision-making, comparing financial products and services
AC9M8A03	Use mathematical modelling to solve applied problems involving linear relations, including financial contexts	Earnings, savings plans, subscriptions, mobile phone plans, cost comparisons
AC9M8M05	Recognise and use rates to solve problems involving comparison of two related quantities	Fuel consumption, electricity usage, mobile phone plans, running costs and unit pricing.
AC9M8M07	Use mathematical modelling to solve practical problems involving ratios and rates, including financial contexts	Travel planning, budgeting, comparing transport options, evaluating ongoing costs
AC9M8ST01	Investigate techniques for collecting data and explain the practicalities and implications of obtaining data	Consumer surveys, market research, financial data, investment information, interpreting financial reports

Looking ahead

In Year 9, students continue to extend their mathematical reasoning by applying algebra, measurement, statistics and mathematical modelling to increasingly complex financial situations. They investigate financial decisions involving income, borrowing, consumer choices and long-term planning, strengthening the knowledge, skills and confidence needed to evaluate financial information and make informed decisions in everyday life.



AC9M8N04

Use the 4 operations with integers and with rational numbers, choosing and using efficient strategies and digital tools where appropriate.

Teaching focus

Students apply the four operations with integers and rational numbers to solve authentic financial problems, selecting efficient calculation strategies and appropriate digital tools where suitable. They perform multi-step calculations involving positive and negative numbers, fractions and decimals to analyse financial situations, compare alternatives and make informed financial decisions.

What students are learning

Students develop fluency in choosing efficient methods to solve practical financial problems. They investigate scenarios involving budgets, wages, discounts, taxes, profit and loss, and household expenses, selecting mental, written or digital strategies appropriate to the task. Through these experiences, students strengthen both their computational fluency and their ability to interpret financial information accurately.

Why this matters

Effective financial decision-making relies on accurate and efficient calculations. Whether preparing a budget, calculating wages, comparing prices, understanding taxes or evaluating the affordability of a purchase, people regularly choose between mental estimation, written calculations and digital tools. Developing these skills enables students to solve financial problems confidently and efficiently in everyday life.

Common misconceptions

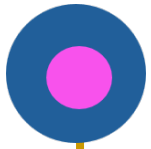
- Assuming a calculator is always the most efficient strategy.
- Completing calculations accurately but overlooking additional costs such as GST, delivery or service fees.
- Confusing income with profit by failing to account for expenses.
- Focusing on obtaining an answer without considering whether it is reasonable in the financial context.

Real-world connections

People use a combination of mental estimation, written calculations and digital tools to manage their finances every day. Whether checking a bank balance, comparing prices, preparing a budget or calculating wages, choosing an efficient strategy helps people make informed financial decisions quickly and accurately.

Professional practice

Provide students with authentic financial documents such as catalogues, payslips, invoices, receipts and budgets. Encourage students to explain why they selected a particular calculation strategy and discuss the advantages of mental methods, written algorithms and digital tools in different financial situations. Reinforce the importance of estimating answers before using technology to verify calculations.



Classroom implementation



Classroom activities

- Prepare a realistic weekly or monthly budget using income and expense information, then evaluate whether the budget is achievable.
- Compare prices from different retailers, including discounts, delivery fees and additional charges, to determine the total cost of a purchase.
- Calculate wages for casual employment using different hourly rates and hours worked, then compare earnings across different work patterns.
- Analyse a simple business scenario involving income, expenses and profit or loss to determine the overall financial outcome.
- Decide when mental calculation, written working, a spreadsheet or a calculator is the most efficient strategy for solving a financial problem, explaining the reasons for the choice.
- Investigate everyday financial scenarios that require several calculations and justify the most efficient solution strategy.

Building mathematical and financial language

- integer
- rational number
- budget
- income
- expense
- discount
- GST
- wage
- profit
- loss
- estimate
- digital tool

Assessment opportunities

- Select appropriate calculation strategies for a range of financial problems.
- Solve multi-step problems involving integers and rational numbers.
- Prepare and evaluate realistic budgets.
- Calculate wages, discounts and other financial amounts accurately.
- Justify the choice of mental, written or digital calculation strategies.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide scaffolded financial scenarios with worked examples, planning templates and partially completed calculations to support multi-step problem-solving.
- Encourage students to estimate answers before calculating and compare the efficiency of different solution strategies.

Extension

- Challenge students to investigate a complex financial scenario involving several income sources, expenses and pricing options, selecting the most efficient calculation methods and justifying their choices.
- Ask students to use spreadsheets or other digital tools to model a realistic financial situation, compare alternative strategies and present recommendations supported by mathematical evidence.



AC9M8N05

Use mathematical modelling to solve practical problems involving rational numbers and percentages, including financial contexts; formulate problems, choosing efficient calculation strategies and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, reviewing the appropriateness of the model.

Teaching focus

Students use mathematical modelling to investigate authentic financial situations involving rational numbers and percentages. They gather relevant information, make assumptions, perform calculations, interpret results and evaluate solutions to support informed financial decision-making.

What students are learning

Students apply mathematical modelling to solve increasingly complex financial problems. They investigate budgets, savings goals, discounts, everyday costs, wages and consumer decisions by identifying key variables, selecting appropriate mathematical strategies and evaluating the outcomes of different financial choices. Students also recognise that financial models are based on assumptions and that different approaches may lead to different, but equally valid, solutions.

Why this matters

Many financial decisions involve more than simply completing a calculation. People compare alternatives, estimate future costs, evaluate risks and consider trade-offs before deciding how to spend or save their money. Mathematical modelling helps students approach these situations systematically, using evidence and reasoning to make informed financial decisions.

Common misconceptions

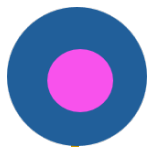
- Assuming every financial problem has one correct answer.
- Ignoring important assumptions or constraints when developing a mathematical model.
- Focusing only on the lowest purchase price rather than considering the total cost or long-term value.
- Accepting calculated results without evaluating whether they are reasonable in the given context.

Real-world connections

Mathematical modelling is used whenever people prepare budgets, compare financial products, evaluate purchases, estimate future costs or work towards savings goals. These skills help students understand how mathematics supports thoughtful financial planning and informed decision-making.

Professional practice

Provide students with open-ended financial investigations that encourage multiple solution pathways. Use authentic financial contexts that require students to identify relevant information, make assumptions, justify their choices and evaluate the strengths and limitations of their mathematical models. Encourage students to communicate both their mathematical reasoning and the financial implications of their conclusions.



Classroom implementation



Classroom activities

- Develop a savings plan to achieve a financial goal within a realistic timeframe, then review how changes to income, expenses or savings rates affect the outcome.
- Compare the total cost of purchasing a product using different pricing or payment options, recommending the most suitable choice using mathematical evidence.
- Investigate how discounts, taxes, fees and additional costs influence the final purchase price and evaluate whether the original financial model remains appropriate.
- Create and evaluate a personal budget based on realistic income and expense scenarios, identifying assumptions and suggesting improvements.
- Compare financial products or services by analysing overall costs, benefits and trade-offs, then justify the preferred option.
- Use spreadsheets or other digital tools to model financial scenarios, test different assumptions and evaluate how changes influence the final recommendation.

Building mathematical and financial language

- mathematical model
- rational number
- percentage
- budget
- savings goal
- variable
- assumption
- constraint
- estimate
- trade-off
- evaluate
- financial decision

Assessment opportunities

- Develop and evaluate mathematical models for authentic financial situations.
- Compare financial options using rational numbers and percentages.
- Justify financial decisions using mathematical evidence.
- Identify assumptions, variables and constraints within a mathematical model.
- Review the appropriateness of a mathematical model and suggest improvements.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide structured modelling templates that help students identify relevant information, make assumptions, perform calculations and review the effectiveness of their model.
- Use spreadsheets, planning tables or graphic organisers to support students in organising financial information and comparing alternative solutions.

Extension

- Challenge students to investigate a complex financial scenario involving multiple variables, evaluate several possible models and recommend the most appropriate solution using mathematical evidence.
- Ask students to refine an existing mathematical model by changing assumptions, testing alternative strategies and reflecting on how these changes influence the financial outcome.



AC9M8A03

Use mathematical modelling to solve applied problems involving linear relations, including financial contexts; formulate problems with linear functions, choosing a representation; interpret and communicate solutions in terms of the situation, reviewing the appropriateness of the model.

Teaching focus

Students use linear relations to model and solve authentic financial problems. They identify relationships between variables, represent these relationships using tables, graphs and equations, and interpret the results to make informed financial decisions.

What students are learning

Students investigate situations where one quantity changes at a constant rate in relation to another. They model financial scenarios such as earnings based on hours worked, regular savings contributions, subscription costs, mobile phone plans and transport fares. By representing these situations mathematically, students develop an understanding of how algebra can be used to predict outcomes, compare alternatives and support financial planning.

Why this matters

Many everyday financial situations follow predictable patterns that can be represented using linear relationships. Understanding these relationships helps students estimate future costs, compare financial products, predict savings growth and evaluate the long-term impact of financial decisions. Developing these skills prepares students to use mathematics confidently when planning and managing their finances.

Common misconceptions

- Assuming every financial relationship is linear.
- Confusing fixed costs with variable costs.
- Interpreting the graph without considering what the variables represent.
- Assuming the option with the lowest starting cost is always the least expensive over time.

Real-world connections

Linear relationships help people compare subscription services, calculate earnings, plan savings, estimate transport costs and understand how regular financial commitments accumulate over time. Recognising these patterns enables students to predict future costs, compare alternatives and make informed financial decisions based on mathematical evidence rather than assumptions.

Professional practice

Use authentic financial scenarios that naturally produce linear relationships. Encourage students to represent the same situation using tables, graphs, equations and written explanations, and discuss the advantages of each representation. Classroom discussions should focus on interpreting the meaning of gradients, intercepts and variables within the financial context rather than treating algebra as an abstract procedure.



Classroom implementation



Classroom activities

- Model weekly earnings using different hourly pay rates and hours worked, then compare employment scenarios.
- Create a graph showing how regular weekly savings contribute towards a financial goal and predict when the target will be reached.
- Compare mobile phone, streaming or internet subscription plans by modelling fixed fees and usage charges using tables, graphs and equations.
- Investigate transport options such as taxi fares or ride-share services by modelling fixed charges and distance-based rates.
- Compare the ongoing costs of different ownership or service options, such as transport or subscription plans, using linear models to identify when one option becomes more economical than another.
- Use spreadsheets or graphing software to model financial situations, test different assumptions and interpret how changing variables affects the outcome.

Building mathematical and financial language

- variable
- equation
- graph
- constant rate
- fixed cost
- variable cost
- subscription
- earnings
- savings
- financial model
- predict

Assessment opportunities

- Create mathematical models for authentic financial situations involving linear relationships.
- Represent financial information using tables, graphs and equations.
- Interpret linear models to explain financial outcomes and predict future values.
- Compare financial options using mathematical evidence.
- Evaluate the suitability of a linear model for a given financial situation.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide scaffolded tables, graphs and partially completed equations to help students identify relationships between variables before developing their own models.
- Use familiar financial contexts, such as wages and savings plans, to build confidence in interpreting linear relationships before introducing more complex scenarios.

Extension

- Challenge students to investigate financial situations involving several linear models, compare where the graphs intersect and determine which option provides the best value under different conditions.
- Ask students to design and present their own financial modelling investigation, explaining the assumptions, representations, calculations and limitations of their model while justifying their recommendations using mathematical evidence.



AC9M8M05

Recognise and use rates to solve problems involving the comparison of 2 related quantities of different units of measure.

Teaching focus

Students use rates to compare two related quantities and solve practical problems in authentic financial contexts. They interpret, calculate and compare rates to evaluate value for money, estimate ongoing costs and make informed financial decisions.

What students are learning

Students develop an understanding of rates as comparisons between two different quantities. They apply this understanding to investigate financial situations involving unit pricing, fuel consumption, electricity usage, wages, mobile phone plans and other everyday financial decisions. Through these experiences, students learn to interpret rates, compare alternatives and justify their recommendations using mathematical evidence.

Why this matters

Rates are used in many everyday financial situations to compare costs, measure efficiency and evaluate value for money. Consumers regularly use rates to compare supermarket products, understand fuel efficiency, estimate electricity costs and evaluate service plans. Developing confidence with rates enables students to make informed financial decisions based on evidence rather than assumptions or advertising.

Common misconceptions

- Assuming the lowest purchase price always represents the best value.
- Comparing costs without considering the quantity or level of service provided.
- Confusing rates with ratios or percentages.
- Ignoring ongoing costs when evaluating financial options.

Real-world connections

Students encounter rates whenever they compare supermarket prices, evaluate fuel efficiency, interpret electricity bills, compare wages or choose mobile phone and internet plans. Understanding rates helps them recognise the true cost of products and services and supports more informed financial decision-making.

Professional practice

Provide students with authentic pricing information from supermarkets, utility providers, employers and service providers. Encourage students to explain the meaning of rates in context and justify which option provides the best overall value. Highlight that financial decisions often involve comparing ongoing costs as well as upfront prices.



Classroom implementation

Classroom activities

- Compare the fuel efficiency of different vehicles using litres per 100 kilometres and estimate annual fuel costs for different driving patterns.
- Investigate electricity plans by comparing usage charges, supply charges and estimated household consumption to determine the most suitable option.
- Compare supermarket products using unit pricing to identify the best value for money and explain when bulk buying may or may not be worthwhile.
- Compare casual employment opportunities using hourly rates, expected weekly hours and estimated weekly earnings.
- Analyse mobile phone or internet plans by comparing monthly fees, data allowances, excess charges and expected usage.
- Use authentic utility bills, supermarket catalogues or service plans to calculate and compare ongoing costs, then recommend the most suitable option for different consumer needs.

Building mathematical and financial language

- rate
- unit price
- fuel efficiency
- usage charge
- supply charge
- hourly rate
- cost per unit
- compare
- efficiency
- value for money
- ongoing cost
- estimate

Assessment opportunities

- Compare products or services using rates.
- Calculate and interpret unit prices, usage rates and hourly rates.
- Evaluate ongoing costs associated with different financial options.
- Recommend the best-value option using mathematical evidence.
- Explain how rates support informed financial decision-making.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide comparison tables, worked examples and visual organisers to help students interpret rates before solving multi-step financial problems.
- Begin with familiar contexts, such as supermarket unit pricing or hourly wages, before introducing more complex rates involving utilities or service plans.

Extension

- Challenge students to investigate a range of consumer products or services with different pricing structures and recommend the most suitable option for different users using mathematical evidence.
- Ask students to analyse authentic utility bills, transport costs or service plans, identify the key rates involved, evaluate alternative options and present recommendations supported by calculations and financial reasoning.



AC9M8M07

Use mathematical modelling to solve practical problems involving ratios and rates, including financial contexts; formulate problems; interpret and communicate solutions in terms of the situation, reviewing the appropriateness of the model.

Teaching focus

Students use mathematical modelling to investigate authentic financial situations involving ratios and rates. They gather relevant information, identify variables and constraints, make assumptions, evaluate alternatives and justify financial decisions using mathematical evidence.

What students are learning

Students apply ratios and rates to develop mathematical models for increasingly complex financial situations. They investigate scenarios such as comparing transport options, planning travel budgets, estimating the ongoing costs of vehicle ownership, evaluating utility plans and comparing service providers. Students learn that financial decisions often involve balancing multiple factors, including cost, time, convenience, efficiency and long-term value, and that different assumptions may lead to different recommendations.

Why this matters

Many significant financial decisions involve comparing options that differ in both cost and value. Mathematical modelling enables students to analyse realistic situations, weigh competing priorities and make informed decisions based on evidence. These skills prepare students to manage increasingly complex financial choices throughout their lives.

Common misconceptions

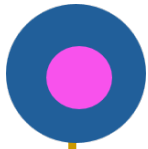
- Assuming the lowest-cost option is always the best choice.
- Ignoring important variables or assumptions when comparing alternatives.
- Comparing options using only one measure rather than considering multiple factors.
- Believing mathematical modelling always produces a single correct solution.

Real-world connections

People regularly use mathematical modelling to compare transport options, estimate the ongoing costs of major purchases, evaluate service providers and plan travel or household budgets. Understanding how ratios and rates interact helps students make balanced financial decisions based on evidence and realistic assumptions.

Professional practice

Provide students with open-ended investigations that require them to compare realistic financial options using ratios and rates. Encourage students to identify assumptions, justify their mathematical models and explain why different solutions may be appropriate depending on individual circumstances. Emphasise that effective financial decision-making involves evaluating evidence, not simply performing calculations.



Classroom implementation

Classroom activities

- Compare the total cost of travelling to school using different transport options, considering financial cost, travel time, convenience and environmental impact where appropriate.
- Investigate the annual cost of owning different vehicles by comparing fuel consumption, registration, insurance, servicing and maintenance using authentic data.
- Compare electricity, internet or mobile phone plans for households with different usage patterns, then recommend the most suitable option using mathematical evidence.
- Plan a class excursion by modelling transport costs, entry fees, travel times and budget constraints, then evaluate alternative itineraries.
- Evaluate several purchasing, transport or service options that involve different rates and ratios, identifying the trade-offs involved before recommending the preferred solution.
- Use spreadsheets or other digital tools to model alternative financial scenarios, test different assumptions and explain how changing variables influences the final recommendation.

Building mathematical and financial language

- mathematical model
- ratio
- rate
- variable
- assumption
- constraint
- budget
- ongoing cost
- efficiency
- trade-off
- recommendation

Assessment opportunities

- Develop mathematical models using ratios and rates to investigate authentic financial situations.
- Compare financial options using mathematical evidence.
- Identify and explain the assumptions and constraints within a mathematical model.
- Evaluate how changes to variables influence financial outcomes.
- Recommend the most appropriate solution and justify decisions using mathematical evidence.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide comparison tables, planning templates and worked examples to help students identify variables, compare rates and organise financial information before modelling solutions.
- Use familiar contexts, such as transport, mobile phone plans or supermarket pricing, before introducing more complex investigations involving multiple variables.

Extension

- Challenge students to investigate a complex financial scenario involving several rates, ratios and constraints, evaluate multiple solutions and recommend the most appropriate option using mathematical evidence.
- Ask students to design and present their own modelling investigation based on an authentic consumer or travel decision, explaining their assumptions, calculations, representations and recommendations while reflecting on the strengths and limitations of their model.



AC9M8ST01

Investigate techniques for data collection including census, sampling, experiment and observation, and explain the practicalities and implications of obtaining data through these techniques.

Teaching focus

Students investigate how financial data are collected and evaluate the strengths and limitations of different data collection techniques. They consider how census data, sampling, experiments and observations influence the reliability of information used to support financial decisions.

What students are learning

Students explore different methods of collecting data and examine how these methods affect the quality and reliability of financial information. They investigate examples such as consumer surveys, market research, product reviews, economic data and investment information, learning to question where data come from, whether they represent the wider population and how they should be interpreted when making financial decisions.

Why this matters

Every day, consumers are presented with financial information intended to influence their decisions. Consumer surveys, market research, product reviews, economic data, investment information and government statistics all rely on data. Understanding how data are collected enables students to critically evaluate the quality of this information, identify potential bias and make more informed financial decisions.

Common misconceptions

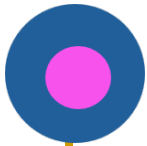
- Assuming information found online is always reliable.
- Believing a small sample always represents the wider population.
- Confusing popularity with accuracy or reliability.
- Accepting advertising claims without considering the evidence or source of the data.

Real-world connections

Consumers rely on data when comparing products, interpreting market trends, evaluating investment performance and understanding economic conditions. Developing data literacy enables students to question financial information, recognise potential bias and make informed decisions based on reliable evidence.

Professional practice

Provide students with opportunities to analyse authentic financial data from a range of trusted sources, including government agencies, consumer organisations and financial institutions. Encourage students to question where data originated, how they were collected and whether they are appropriate for the decisions being made. Discussions should emphasise that informed financial decisions depend not only on mathematical skills but also on the quality of the evidence available.



Classroom implementation



Classroom activities

- Compare the results of a class census with a sample survey and discuss how each influences the reliability of conclusions about consumer behaviour.
- Investigate online product reviews and evaluate whether the number, source and quality of reviews provide reliable evidence for purchasing decisions.
- Examine how market research influences advertising and consumer behaviour by comparing promotional claims with supporting data.
- Explore Australian Bureau of Statistics or other trusted public datasets on household spending, cost of living or consumer behaviour and discuss how these data can inform financial decisions.
- Compare financial claims presented in advertisements with the evidence used to support those claims, identifying potential bias or missing information.
- Design and conduct a survey on consumer preferences, evaluate the quality of the collected data and reflect on how different sampling methods may influence the results.

Building mathematical and financial language

- census
- sample
- population
- bias
- reliability
- validity
- observation
- survey
- market research
- consumer data
- evidence
- financial information

Assessment opportunities

- Compare different methods of collecting financial data.
- Evaluate the reliability of surveys, reviews and market research.
- Identify potential sources of bias in financial information.
- Explain how data quality influences financial decisions.
- Draw conclusions supported by appropriate evidence.
- Communicate findings using appropriate statistical, mathematical and financial language.

Differentiation

Support

- Provide structured data sets, comparison tables and guiding questions to help students identify sampling methods, recognise bias and evaluate the reliability of financial information.
- Begin with familiar examples, such as product reviews or class surveys, before investigating larger public datasets or market research.

Extension

- Challenge students to investigate an authentic consumer or financial claim using multiple data sources, evaluate the reliability of each source and present evidence-based conclusions.
- Ask students to design, conduct and critique their own financial or consumer survey, reflecting on sampling methods, potential bias, limitations and how the data could influence financial decision-making.

WA Financial Mathematics Curriculum

Identify the advantages and disadvantages of various forms of payment for goods and services and determine penalties, such as interest charged and fees, inherent in these payments.

Students investigate different ways to pay for goods and services, comparing the advantages and disadvantages of payment methods such as cash, debit cards, credit cards and digital payments. They recognise that some payment options involve fees or interest charges and learn how these additional costs influence financial decisions.

The logo features two stylized marshmallows, one yellow and one pink, positioned to the left of the text.

Marshmallow Money Connections

Student books

- **Spending** – selected pages exploring What's in a Price? (pp. 20–30), smart shopping, unit pricing and value for money (pp. 31–40), budgeting (pp. 41–47), and payment methods, including cash, debit cards, credit cards and Buy Now, Pay Later (pp. 48–57).
- **Saving** – selected pages exploring simple and compound interest (pp. 25–36), ways to save (pp. 30–31), banks, credit unions and building societies (pp. 33–38), and inflation and the changing value of money (pp. 37–39).
- **Tax** – selected pages exploring Australia's tax system (pp. 20–33), GST and how percentages influence purchase prices (pp. 28–31), and starting work, payslips, gross and net income, PAYG withholding and tax file numbers (pp. 34–45).
- **Buying a Car** – selected pages exploring choosing the right car (pp. 20–31), depreciation and appreciation, and the ongoing costs of vehicle ownership (pp. 32–46), paying for a car and comparing finance options (pp. 47–58), and consumer rights and responsibilities (pp. 59–66).

Educator Support Pack

Spending (teacher discretion for Year 8)

- **Worksheet 2** – students investigate spending choices, opportunity cost and consumer decision-making using authentic financial scenarios.
- **Worksheet 4** – students compare prices, calculate discounts, evaluate unit pricing and assess value for money when making purchasing decisions.

Saving (teacher discretion for Year 8)

- **Worksheet 3** – students develop a personal savings goal and saving plan by estimating costs and identifying strategies to achieve their goal.
- **Worksheet 4** – students investigate bank accounts, compare simple and compound interest, and explore the effect of inflation on savings.

Tax (teacher discretion for Year 8)

- **Worksheet 2** – students investigate Australia's tax system by identifying different types of taxes, including GST and PAYG withholding, distinguishing between direct and indirect taxes, and applying percentage-based tax concepts to everyday financial situations.
- **Worksheet 3** – students interpret payslips, explore tax file numbers, compare gross and net income, and investigate tax returns and deductions.

Buying a Car

- **Worksheet 1** – students investigate assets, appreciation and depreciation, and identify the ongoing costs of owning a vehicle.
- **Worksheet 2** – students compare vehicle options by evaluating purchase price, depreciation, ongoing ownership costs and value for money using ratios, percentages and financial reasoning.
- **Worksheet 4** – students calculate depreciation, annual ownership costs and total costs of ownership, applying rates, ratios and percentages to authentic financial situations.

Year 9

In Year 9, students use mathematics to investigate how financial decisions influence outcomes over time. They apply algebra, measurement, statistics and mathematical modelling to investigate financial situations, interpret data, evaluate evidence and justify informed decisions. Through increasingly sophisticated investigations, students develop a deeper understanding of how mathematics supports effective financial planning and informed decision-making.

Students explore contexts such as investing, borrowing, budgeting, insurance, consumer decision-making and long-term financial planning. They model financial change, compare alternative scenarios, investigate the impact of different assumptions and interpret financial data to make justified recommendations. These learning experiences encourage students to think critically about financial choices, recognising that effective financial decisions require balancing competing priorities, evaluating risks and considering both short- and long-term consequences.

Curriculum milestone

Students apply mathematics to authentic personal finance situations, investigating income, taxation, budgeting, borrowing and investing while using mathematical models to compare alternatives and justify financial decisions.

Year 9 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M9A05	Use mathematical modelling to solve applied problems involving change, including financial contexts	Budgeting, borrowing, investing, inflation, depreciation, long-term financial planning
AC9M9A06	Investigate the effect of changing parameters of functions	Loan repayments, savings plans, subscription pricing, income growth, break-even analysis
AC9M9M04	Calculate and interpret absolute, relative and percentage errors	Budget forecasting, estimating costs, pricing errors, financial planning, interpreting estimates
AC9M9ST02	Analyse and interpret data from investigations	Investment performance, inflation, consumer behaviour, household spending, economic trends

Looking ahead

In Year 10, students extend these skills by applying mathematics to increasingly sophisticated financial contexts, including borrowing, investing, budgeting and long-term financial planning. They use mathematical models to compare alternatives, evaluate financial risk, interpret statistical information and justify decisions using mathematical and statistical evidence. As financial situations become more complex, students develop the confidence to apply mathematical reasoning to real-world decisions they are likely to encounter as young adults.



AC9M9A05

Use mathematical modelling to solve applied problems involving change including financial contexts; formulate problems, choosing to use either linear or quadratic functions; interpret solutions in terms of the situation; evaluate the model and report methods and findings.

Teaching focus

Students use mathematical modelling to investigate how financial situations change over time. They formulate problems, select appropriate mathematical models, interpret solutions within authentic financial contexts, evaluate the effectiveness of their models and communicate their findings using mathematical reasoning.

What students are learning

Students apply mathematical modelling to analyse increasingly sophisticated financial situations involving change over time. They investigate scenarios such as savings plans, investment growth, borrowing, insurance costs and long-term financial planning by identifying variables, making assumptions and evaluating the impact of different financial decisions. Students recognise that mathematical models simplify complex real-world situations by making assumptions. They learn to evaluate the usefulness and limitations of their models and consider how changing assumptions can alter financial outcomes.

Why this matters

Many important financial decisions involve predicting how circumstances change over time. Saving for future goals, investing money, purchasing insurance, managing debt and planning major purchases all require people to analyse information, compare alternatives and consider long-term consequences. Mathematical modelling enables students to make informed financial decisions by testing different scenarios and evaluating the likely outcomes before committing to a course of action. These skills help students understand that effective financial planning is based on evidence, informed assumptions and ongoing review rather than certainty.

Common misconceptions

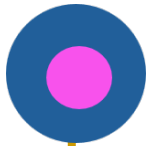
- Believing mathematical models always predict the future exactly.
- Assuming one financial solution is always the "best" without considering personal circumstances or assumptions.
- Ignoring variables that may significantly influence long-term financial outcomes.
- Focusing only on calculations rather than interpreting and evaluating the model within its financial context.

Real-world connections

Financial advisers, businesses, governments and consumers use mathematical models to forecast costs, compare investment opportunities, evaluate borrowing decisions and plan for future financial needs. Understanding how these models work helps students interpret financial information critically and appreciate both the power and limitations of mathematical predictions.

Professional practice

Provide students with open-ended investigations that require them to formulate questions, select appropriate mathematical models and evaluate alternative financial scenarios. Encourage students to explain the assumptions underpinning their models, justify the mathematical methods they selected and reflect on how changes to variables may influence their conclusions. Discussions should emphasise that mathematical modelling supports evidence-based decision-making rather than predicting a single correct future.



Classroom implementation



Classroom activities

- Develop and compare savings or investment plans designed to achieve a long-term financial goal, explaining how different assumptions influence the projected outcome.
- Model how different borrowing amounts, repayment periods or repayment strategies influence the total cost of a purchase.
- Compare insurance options by investigating premiums, excesses, levels of cover and potential claim scenarios to determine which policy best suits different needs.
- Investigate how changing variables such as income, expenses, inflation or investment returns influences a long-term financial plan.
- Develop a mathematical model comparing alternative pathways to achieve a financial goal, then evaluate the strengths, limitations and assumptions of the model.
- Use spreadsheets or graphing technology to model financial scenarios, test different assumptions and communicate evidence-based recommendations.

Building mathematical and financial language

- mathematical model
- variable
- linear function
- quadratic function
- financial plan
- investment
- borrowing
- insurance
- assumption
- constraint
- evaluate
- prediction

Assessment opportunities

- Develop mathematical models to investigate authentic financial situations involving change over time.
- Select and justify appropriate mathematical representations.
- Evaluate how changing assumptions influences financial outcomes.
- Interpret the strengths and limitations of mathematical models.
- Compare alternative financial scenarios using mathematical evidence.
- Communicate methods, findings and recommendations using appropriate mathematical and financial language.

Differentiation

Support

- Provide partially completed spreadsheets, modelling templates and worked examples to help students identify variables, make assumptions and interpret financial outcomes before creating their own models.
- Begin with simple linear financial situations before progressing to investigations involving multiple variables or non-linear relationships.

Extension

- Challenge students to compare several financial strategies using spreadsheet modelling, sensitivity analysis or graphing software, evaluating how changes in assumptions affect long-term outcomes.
- Ask students to design and present an authentic financial investigation that models a real-world decision, critically evaluates the strengths and limitations of the model and justifies recommendations using mathematical evidence.



AC9M9A06

Experiment with the effects of the variation of parameters on graphs of related functions, using digital tools, making connections between graphical and algebraic representations, and generalising emerging patterns.

Teaching focus

Students investigate how changing parameters influences mathematical models and apply this understanding to authentic financial situations. They use digital tools to explore how varying assumptions affects financial outcomes, interpret graphical representations and compare alternative financial scenarios.

What students are learning

Students investigate how changing parameters and variables influences financial models represented by graphs, tables and algebraic expressions. They explore how changes to assumptions affect mathematical relationships and financial outcomes. They investigate scenarios such as changes in income, savings contributions, loan repayments, subscription costs and investment returns, developing an understanding of how different assumptions influence financial outcomes. Through these investigations, students learn to interpret graphical information and use mathematical evidence to compare alternative financial strategies.

Why this matters

Financial plans are rarely fixed. Income changes, expenses increase, investment returns vary and financial goals evolve over time. Understanding how changes to key variables influence financial outcomes enables students to evaluate different scenarios, anticipate future consequences and make more informed financial decisions. These investigations help students recognise that financial decisions should be reviewed as circumstances change rather than treated as fixed plans.

Common misconceptions

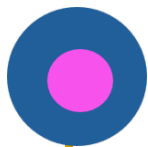
- Assuming that changing one variable has no effect on other parts of a financial model.
- Interpreting graphs without considering what each axis represents.
- Focusing only on numerical calculations rather than the overall pattern of change.
- Assuming mathematical models predict exact future outcomes rather than illustrating possible scenarios based on assumptions.

Real-world connections

Individuals, businesses and governments regularly use mathematical models to explore "what if" scenarios before making financial decisions. Changing savings amounts, adjusting budgets, comparing investment options and forecasting business income all involve investigating how changes in key variables influence future outcomes.

Professional practice

Encourage students to use graphing technology or spreadsheets to investigate how changing variables affects financial models. Focus discussions on interpreting graphs, explaining trends and evaluating the reasonableness of different scenarios. Emphasise that mathematical models are tools for exploring possibilities and supporting decision-making rather than providing certainty about future outcomes.



Classroom implementation



Classroom activities

- Investigate how increasing weekly savings contributions changes the time required to achieve a financial goal and explain the relationship graphically.
- Explore how changes in hourly wage rates, hours worked or overtime influence total earnings using tables, graphs and algebraic representations.
- Compare different subscription, streaming or mobile phone plans by modelling changes in usage and monthly costs for different consumers.
- Investigate how varying loan repayments influences the repayment period, total repayments and overall borrowing costs.
- Use graphing software or spreadsheets to adjust parameters within financial models and explain how changing assumptions influences financial outcomes.
- Conduct "what if?" investigations by changing one variable at a time, interpreting the resulting graphs and evaluating which financial strategy best meets a given objective.

Building mathematical and financial language

- parameter
- variable
- function
- graph
- linear relationship
- algebraic expression
- digital tool
- financial model
- savings
- income
- investment
- scenario

Assessment opportunities

- Investigate the effects of changing parameters within financial models.
- Interpret graphical and algebraic representations of financial situations.
- Compare alternative financial scenarios using digital technologies.
- Explain how changes in variables influence financial outcomes.
- Evaluate financial strategies using mathematical evidence.
- Communicate findings using appropriate mathematical and financial language.

Differentiation

Support

- Provide completed graphs, structured spreadsheets and guided investigations that allow students to vary one parameter at a time before exploring more complex models.
- Begin with familiar financial contexts, such as savings plans or hourly wages, before introducing investigations involving multiple interacting variables.

Extension

- Challenge students to investigate financial models involving several changing parameters, comparing the influence of each variable on long-term outcomes.
- Ask students to design and conduct their own "what if?" financial investigation using graphing technology or spreadsheets, present their findings and justify recommendations based on mathematical evidence.



AC9M9M04

Calculate and interpret absolute, relative and percentage errors in measurements, recognising that all measurements are estimates.

Teaching focus

Students calculate and interpret absolute, relative and percentage errors, applying these concepts to authentic financial situations. They evaluate the accuracy of financial estimates, compare predicted and actual costs, and recognise how small differences can influence financial decisions.

What students are learning

Students develop an understanding of how error and uncertainty affect real-world financial planning. They compare estimated and actual costs, calculate percentage differences and interpret the significance of these differences when preparing budgets, forecasting expenses and evaluating financial outcomes. Through these experiences, students learn that financial estimates should be monitored, reviewed and refined as new information becomes available, recognising that effective financial planning is an ongoing process rather than a one-off calculation.

Why this matters

Many financial decisions are based on estimates rather than exact values. People estimate the cost of holidays, renovations, vehicle ownership, insurance premiums and household budgets before committing to financial decisions. Understanding how to calculate and interpret errors helps students evaluate the reliability of financial estimates, plan more effectively and make informed decisions when circumstances change. Recognising uncertainty also helps students build contingency into financial plans and make more resilient financial decisions.

Common misconceptions

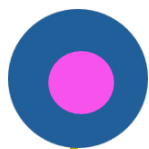
- Assuming estimates should exactly match the final cost.
- Confusing accuracy with precision.
- Believing a small absolute error is always insignificant without considering the size of the original value.
- Ignoring the impact that small percentage differences can have on large financial decisions.

Real-world connections

People compare estimated and actual costs whenever they prepare budgets, purchase a vehicle, renovate a home, organise events or manage business finances. Understanding financial error and uncertainty helps consumers plan realistically, adjust their expectations and make better-informed financial decisions when circumstances change.

Professional practice

Provide students with authentic financial scenarios that involve comparing estimated and actual costs. Encourage students to interpret the significance of absolute, relative and percentage errors within the financial context, rather than focusing solely on calculations. Classroom discussions should emphasise that good financial planning involves reviewing estimates, monitoring actual outcomes, analysing sources of error and adapting plans as new information becomes available.



Classroom implementation



Classroom activities

- Compare a planned budget with actual spending and calculate the absolute, relative and percentage error for each expense category.
- Investigate the estimated and actual annual costs of owning a car, including fuel, insurance, registration and maintenance, then analyse the reasons for any differences.
- Compare insurance quotes with the final amount paid after optional extras, discounts or policy changes, calculating the percentage difference between estimates and actual costs.
- Estimate the cost of organising a household project, school event or holiday, then investigate how unexpected expenses influence the final budget.
- Analyse financial forecasts from authentic scenarios and identify which assumptions contributed most to estimation errors.
- Develop a financial plan that includes a contingency allowance, then evaluate how this affects the impact of unexpected costs.

Building mathematical and financial language

- absolute error
- relative error
- percentage error
- estimate
- actual value
- accuracy
- precision
- budget
- forecast
- financial risk
- variance
- reliability

Assessment opportunities

- Calculate and interpret absolute, relative and percentage errors in financial contexts.
- Compare estimated and actual financial outcomes.
- Evaluate the accuracy and reliability of financial forecasts.
- Explain how estimation errors influence financial decision-making.
- Recommend strategies to reduce the impact of estimation errors.
- Communicate findings using appropriate mathematical and financial language.

Differentiation

Support

- Provide completed budgets, worked examples and structured comparison tables to help students identify estimated and actual values before calculating different measures of error.
- Begin with familiar budgeting scenarios before introducing investigations involving multiple variables or long-term financial planning.

Extension

- Challenge students to investigate authentic financial forecasts, compare projected and actual outcomes, analyse the causes of estimation errors and recommend improvements to the original model.
- Ask students to evaluate how contingency planning, sensitivity analysis or revised assumptions could improve the reliability of financial plans in complex real-world scenarios.



AC9M9ST02

Analyse how different sampling methods can affect the results of surveys and how choice of representation can be used to support a particular point of view.

Teaching focus

Students investigate how different sampling methods and data representations influence the conclusions that can be drawn from financial information. They evaluate the reliability of evidence, identify potential sources of bias and consider how statistical displays can be used to support particular viewpoints in financial contexts.

What students are learning

Students develop statistical reasoning by collecting, analysing and interpreting financial data from a variety of sources. They compare different sampling methods and investigate how choices about data collection and representation can influence the interpretation of financial information. They analyse trends in areas such as household spending, inflation, wages, savings, investment performance and consumer behaviour. Throughout these investigations, students learn to question the quality of data, recognise how graphs and displays can influence interpretation, and draw evidence-based conclusions that support informed financial decision-making.

Why this matters

Financial decisions are increasingly informed by data. Consumers compare prices, analyse product reviews, monitor investment performance and interpret economic information before making decisions. Developing the ability to evaluate data critically helps students distinguish reliable evidence from misleading information and make informed financial choices throughout their lives.

Common misconceptions

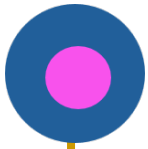
- Assuming that all published financial data is equally reliable.
- Confusing correlation with causation.
- Accepting graphs at face value without considering how scales or displays influence interpretation.
- Drawing conclusions without considering sample size, data quality or possible sources of bias.

Real-world connections

Governments, businesses, financial institutions and consumers use data to monitor economic conditions, forecast trends, evaluate investments and make financial decisions. Understanding how to interpret data critically enables students to make informed choices and recognise when financial claims are supported by credible evidence.

Professional practice

Use authentic datasets from reputable organisations to develop students' statistical reasoning and financial capability. Encourage students to compare multiple sources of information, question how data is collected and presented, and justify conclusions using evidence. Discussions should reinforce that effective financial decision-making depends on evaluating both the quality of the data and the strength of the conclusions drawn from it.



Classroom implementation



Classroom activities

- Compare the results of surveys collected using different sampling methods and discuss how the choice of sample influences conclusions about consumer behaviour.
- Analyse changes in household spending patterns using publicly available data and identify possible reasons for observed trends.
- Compare historical inflation and wage growth data to investigate changes in purchasing power over time and discuss how different graph scales influence interpretation.
- Evaluate graphs, advertisements or media reports presenting financial information, identifying examples of misleading representations, selective data or biased conclusions.
- Collect survey data about young people's spending or saving habits using different sampling approaches, compare the results and evaluate the reliability of each method.
- Investigate how the same financial data can be represented in different graphical forms and discuss how presentation influences interpretation and decision-making.

Building mathematical and financial language

- primary data
- secondary data
- sample
- sampling method
- population
- trend
- pattern
- correlation
- bias
- reliability
- representation
- evidence

Assessment opportunities

- Compare how different sampling methods influence financial data.
- Analyse financial data to identify patterns and trends.
- Evaluate the reliability and appropriateness of different data sources.
- Interpret graphs and statistical displays critically.
- Explain how different representations can influence conclusions.
- Communicate evidence-based findings using appropriate statistical and financial language.

Differentiation

Support

- Provide structured datasets, guided questions and examples of different graph types to help students identify patterns, compare samples and recognise bias before conducting independent investigations.
- Begin with familiar consumer surveys before progressing to larger economic or financial datasets.

Extension

- Challenge students to investigate a contemporary financial issue using multiple data sources, compare sampling methods and evaluate how different representations influence public understanding.
- Ask students to design and conduct a survey using an appropriate sampling strategy, analyse the results using multiple graphical representations and critically evaluate the reliability and limitations of their findings.

WA Financial Mathematics Curriculum

Explore, explain and perform calculations that relate to earning income. Identify the elements of an income statement/payslip, including employer superannuation contributions and income tax as a deduction from gross income.

Students investigate how people earn income and learn to interpret the information presented on a payslip. They identify key features such as gross income, income tax, employer superannuation contributions and net pay, and perform calculations to understand how deductions and contributions affect the amount received. These experiences help students develop the knowledge and confidence to interpret employment-related financial information and manage their personal finances.

Develop and use the simple interest formula to solve problems relating to saving and borrowing.

Students apply the simple interest formula to investigate how money grows when saved and how interest increases the cost of borrowing. They solve authentic financial problems involving savings accounts and loans, compare different scenarios, and use mathematical reasoning to make informed financial decisions.

Year 9 optional

Use authenticated websites to explore and compare different savings account options based on their characteristics (interest rates, fees, withdrawal policy).

Students use trusted financial websites to compare savings accounts, considering features such as interest rates, fees, withdrawal conditions and account accessibility. They evaluate how these characteristics influence the overall value of an account and justify recommendations using mathematical evidence and financial reasoning.

or

Compare price, quality, terms and conditions of goods and services, such as phone plans and digital subscriptions.

Students compare goods and services by evaluating price, quality, features and contractual terms, including mobile phone plans and digital subscriptions. They calculate ongoing costs, identify fees or restrictions, and use mathematical reasoning to determine which option provides the best overall value for different consumer needs.



Marshmallow Money Connections

Student books

- **Superannuation** – selected pages exploring how superannuation works (pp. 9–14), the power of compound growth (pp. 15–18), how money flows into super, including employer contributions and the Super Guarantee (pp. 19–28), where super is invested and investment options (pp. 29–33, 48–55), fees and insurance (pp. 34–38), starting your super journey (pp. 39–47), and planning for retirement (pp. 64–72).
- **Tax** – selected pages exploring Australia's tax system (pp. 20–33), GST (pp. 28–31), starting work, payslips, gross and net income, PAYG withholding, employer superannuation contributions and tax file numbers (pp. 34–45), and keeping tax records and lodging a tax return (pp. 46–55).
- **Buying a Car** – selected pages exploring depreciation and appreciation, the total cost of vehicle ownership (pp. 32–46), borrowing and paying for a car (pp. 47–58), and consumer rights and responsibilities (pp. 59–66).
- **Saving** – selected pages exploring simple and compound interest (pp. 25–36), banks, credit unions and building societies (pp. 33–38), and inflation and the changing value of money (pp. 37–39).

- **Spending** – selected pages exploring subscriptions and lock-in tactics (p. 33), choosing a mobile phone plan (p. 36), smart shopping and unit pricing (pp. 31–40), budgeting (pp. 41–47), and payment methods (pp. 48–57).

Educator Support Pack

Superannuation (teacher discretion for Year 9)

- **Worksheet 1** – introducing superannuation, employer contributions, the Super Guarantee, compound growth, fees and investment fundamentals.
- **Worksheet 2** – interpreting payslips, comparing super funds, evaluating fees, investment options and long-term financial decisions.
- **Worksheet 4** – calculating Super Guarantee contributions, contribution tax, percentage returns and compound growth using authentic financial scenarios.

Tax

- **Worksheet 2** – students investigate GST, PAYG withholding and percentage-based taxation.
- **Worksheet 3** – students interpret payslips, compare gross and net income, investigate tax file numbers and tax returns.
- **Worksheet 4** – students calculate income tax using progressive tax brackets and distinguish between marginal and average tax rates.

Buying a Car

- **Worksheet 2** – students compare vehicle options using purchase price, depreciation, ongoing costs and value for money.
- **Worksheet 4** – students calculate depreciation, annual ownership costs and total cost of ownership.
- **Worksheet 5** – students evaluate financial decisions using evidence, assumptions and consumer information.

Spending

- **Worksheet 4** – students calculate the costs of subscription services, compare payment options, model ongoing expenses, and evaluate the long-term financial impact of recurring payments using rates, percentages and financial reasoning.
- **Worksheet 5** – students evaluate consumer choices by analysing financial scenarios, weighing costs and benefits, identifying trade-offs, and justifying recommendations using mathematical and financial evidence.

Suggested classroom connections

- Compare savings accounts using **simple interest**, fees and account conditions.
- Investigate how changes in **interest rates** affect borrowing costs and savings growth.
- Interpret a payslip by identifying **gross income, PAYG withholding, employer superannuation contributions and net income**.
- Compare mobile phone or subscription plans by modelling ongoing costs under different usage scenarios and recommending the best-value option.
- Compare superannuation investment options by analysing risk, return and long-term growth, and discuss how investment choices influence retirement savings.
- Investigate the total cost of borrowing for a major purchase, like a car, by comparing repayment options and interest charges.
- Analyse the estimated and actual costs of owning a vehicle, calculating depreciation and percentage differences.
- Use spreadsheets to model long-term financial plans and investigate how changing assumptions influence outcomes.

Year 10

In Year 10, students apply mathematics to investigate complex financial situations involving growth, change and long-term decision-making. They use algebra, statistics and mathematical modelling to analyse relationships, evaluate financial scenarios and make evidence-based decisions in authentic contexts. Students develop increasingly sophisticated mathematical reasoning as they interpret patterns, evaluate uncertainty, predict future outcomes and justify evidence-based conclusions.

Students explore financial contexts such as investing, superannuation, borrowing, insurance and major consumer decisions. They investigate exponential growth and decay, analyse financial data, compare alternative strategies and use digital technologies to model how changing assumptions influence long-term financial outcomes and recognise that financial plans should be reviewed as circumstances change. These learning experiences encourage students to think critically about financial risk, opportunity and the impact of decisions made today on future financial wellbeing.

Curriculum milestone

Students apply mathematics to long-term financial planning by modelling growth, evaluating financial risk, comparing alternatives and making evidence-based decisions about investing, borrowing, taxation, insurance and superannuation.

Year 10 Content Descriptors

Australian Curriculum	Mathematical focus	Financial context
AC9M10A03	Exponential functions and equations	Investment growth, compound interest, inflation, loan balances
AC9M10A04	Mathematical modelling involving growth and decay	Compound interest, investing, superannuation, borrowing, long-term financial planning
AC9M10ST03	Analyse associations in bivariate data	Income and expenditure, wages and education, spending and saving, economic trends
AC9M10A05	Investigate functions using digital tools	Financial forecasting, comparing investment scenarios, budgeting models

Looking ahead

By the end of Year 10, students have developed the mathematical knowledge and financial understanding needed to navigate many of the financial decisions they will soon encounter as young adults. From interpreting payslips and taxation to comparing loans, evaluating investments, understanding superannuation and analysing financial data, they are increasingly able to apply mathematics in authentic real-world contexts.

As students transition to senior secondary education, employment, apprenticeships or further study, these capabilities become increasingly important. Financial decisions become more complex, involving greater independence, increased responsibility and longer-term planning. A strong understanding of financial mathematics equips students to evaluate opportunities critically, manage financial risks and make informed decisions throughout their lives.

Financial mathematics is not simply about performing calculations; it is about using mathematics to understand, compare and evaluate the financial choices that shape everyday life. By connecting mathematical concepts with authentic financial situations, students develop the confidence, judgement and problem-solving skills needed to become informed, capable and responsible decision-makers in an increasingly complex financial world.



AC9M10A03

Recognise the connection between algebraic and graphical representations of exponential relations and solve related exponential equations, using digital tools where appropriate.

Teaching focus

Students investigate exponential relationships by connecting algebraic rules, tables of values and graphical representations. They use digital tools to model authentic financial situations involving exponential growth, interpret graphs and solve exponential equations in real-world contexts.

What students are learning

Students recognise the characteristics of exponential relationships and explore how they are represented algebraically and graphically. They investigate financial situations such as compound interest, investment growth, inflation and superannuation, interpreting how repeated percentage changes produce exponential patterns over time. Students use graphing technology and digital tools to compare exponential models, solve related equations and evaluate how changes in growth rates, contributions and time influence long-term financial outcomes.

Why this matters

Many financial situations involve exponential rather than linear growth. Investments, superannuation balances and inflation all change through repeated percentage increases or decreases. Understanding the relationship between equations and graphs helps students interpret financial information, compare long-term financial scenarios and appreciate how small differences in growth rates can have a significant impact over time. These investigations help students appreciate why starting early can be just as important as investing larger amounts later in life.

Common misconceptions

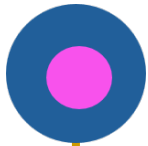
- Assuming exponential growth is the same as linear growth.
- Interpreting exponential graphs as increasing by a constant amount rather than a constant percentage.
- Believing small differences in growth rates have little impact over long time periods.
- Focusing only on equations without interpreting what the graph reveals about financial change.

Real-world connections

Banks, investment managers, superannuation funds and economists use exponential models to represent investment growth, inflation and long-term financial forecasts. Understanding these graphical and algebraic representations helps students interpret financial information and make informed long-term financial decisions.

Professional practice

Provide students with opportunities to investigate exponential relationships using graphing software and spreadsheets. Encourage students to move fluently between equations, tables and graphs, interpreting each representation within an authentic financial context. Discussions should focus on why exponential models are appropriate for situations involving repeated percentage change and how graphical representations help explain long-term financial change and support evidence-based financial decisions.



Classroom implementation

Classroom activities

- Use graphing software to compare simple and compound investment growth over different time periods and explain the differences.
- Investigate how changing investment return rates influences long-term growth and interpret the resulting exponential graphs.
- Model the effect of inflation on purchasing power over time using exponential relationships and discuss the implications for saving and investing.
- Compare superannuation balances under different contribution rates, investment returns and starting ages using spreadsheets or graphing software.
- Use digital tools to solve exponential equations arising from authentic financial situations, such as determining when a savings goal will be achieved or when an investment will double in value.
- Investigate "what if?" scenarios by varying investment returns, contribution amounts or time horizons and evaluating how each parameter influences long-term financial outcomes.

Building mathematical and financial language

- exponential relation
- exponential equation
- growth factor
- compound interest
- investment
- superannuation
- inflation
- graph
- function
- rate of return
- digital technology
- financial model

Assessment opportunities

- Connect algebraic and graphical representations of exponential relationships.
- Use digital tools to investigate and solve exponential equations.
- Interpret exponential graphs in authentic financial contexts.
- Evaluate how changes in growth rates, contributions or time influence financial outcomes.
- Compare long-term financial scenarios using mathematical evidence.
- Communicate mathematical reasoning using appropriate mathematical and financial language.

Differentiation

Support

- Provide partially completed tables, graphs and spreadsheet models that allow students to vary one parameter at a time before investigating more complex exponential relationships.
- Begin with familiar contexts, such as savings accounts or inflation, before progressing to compound interest and superannuation models.

Extension

- Challenge students to compare multiple investment strategies using spreadsheets, varying contribution amounts, rates of return and investment periods to evaluate long-term outcomes.
- Ask students to investigate authentic financial data, construct exponential models, evaluate the assumptions within those models and present evidence-based recommendations about long-term financial planning.



AC9M10A04

Use mathematical modelling to solve applied problems involving growth and decay, including financial contexts; formulate problems, choose appropriate models, interpret solutions in terms of the situation, evaluate the model and communicate methods and findings.

Teaching focus

Students use mathematical modelling to investigate real-world situations involving growth and decay, with a particular emphasis on financial contexts. They formulate problems, select appropriate mathematical models, interpret solutions, evaluate the effectiveness of their models and communicate evidence-based conclusions.

What students are learning

Students develop, test and refine mathematical models that represent financial situations involving growth and decay over time. They explore scenarios involving compound interest, investment growth, superannuation, borrowing and inflation, using mathematical reasoning to compare alternative strategies and predict future outcomes. Students evaluate the assumptions, strengths and limitations of their models and recognise that mathematical modelling supports evidence-based financial decision-making rather than predicting a single future outcome.

Why this matters

Many of life's most significant financial decisions involve growth and change over time. Investing regularly, building superannuation, borrowing to purchase a home and managing the effects of inflation all require an understanding of how financial outcomes accumulate over months and years. Mathematical modelling enables students to compare options, evaluate long-term consequences and make informed financial decisions based on evidence rather than assumptions. These experiences help students understand that today's financial decisions can have significant long-term consequences.

Common misconceptions

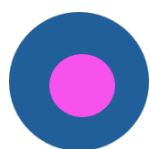
- Assuming financial growth is always constant or guaranteed.
- Believing mathematical models predict exact future outcomes rather than possible scenarios based on assumptions.
- Ignoring the impact of small changes that accumulate over long periods.
- Focusing on calculations without evaluating the assumptions and limitations of the model.

Real-world connections

Financial institutions, businesses, governments and individuals use mathematical models to forecast investment growth, estimate retirement savings, evaluate borrowing decisions and assess the long-term effects of inflation. Understanding these models enables students to interpret financial information critically and make informed decisions about their financial future.

Professional practice

Provide students with authentic financial investigations that require them to formulate mathematical models, test different assumptions and evaluate alternative financial strategies. Encourage students to use digital technologies to model long-term financial scenarios, justify the mathematical approaches they select and reflect on how changing variables influence financial outcomes. Emphasise that effective financial planning relies on interpreting mathematical evidence alongside personal goals, changing circumstances and uncertainty about future outcomes.



Classroom implementation

Classroom activities

- Model the long-term growth of regular investments using different contribution amounts, investment periods and rates of return, then evaluate how each variable influences the outcome.
- Compare superannuation balances under different contribution strategies, retirement ages and investment assumptions using spreadsheets or graphing software.
- Investigate how inflation influences the future purchasing power of savings and discuss strategies for maintaining long-term financial wellbeing.
- Compare alternative home loan scenarios by modelling changes in loan amounts, repayment periods and interest rates, evaluating both short-term affordability and long-term cost.
- Develop, test and refine a mathematical model for achieving a long-term financial goal such as purchasing a home, funding tertiary education or preparing for retirement.
- Conduct sensitivity analysis by changing one assumption at a time, evaluating how uncertainty influences financial outcomes and the robustness of different financial strategies.

Building mathematical and financial language

- mathematical model
- growth
- decay
- compound interest
- investment
- superannuation
- inflation
- rate of return
- financial forecast
- assumption
- variable

Assessment opportunities

- Develop mathematical models for authentic financial situations involving growth and decay.
- Select and justify appropriate mathematical representations.
- Interpret and evaluate financial models within real-world contexts.
- Analyse how changing assumptions influences financial outcomes.
- Compare alternative financial strategies using mathematical evidence.
- Communicate methods, findings and recommendations using appropriate mathematical and financial language.

Differentiation

Support

- Provide structured spreadsheet templates and guided modelling tasks that allow students to investigate one changing variable at a time before developing independent financial models.
- Begin with familiar contexts, such as savings plans or inflation, before progressing to more complex investigations involving borrowing, superannuation or investment growth.

Extension

- Challenge students to investigate authentic long-term financial scenarios involving multiple interacting variables, evaluate alternative modelling approaches and justify recommendations using mathematical evidence.
- Ask students to design, test and refine their own financial model using spreadsheets or graphing technology, critically evaluating assumptions, limitations and the sensitivity of the model to changing conditions.



AC9M10ST03

Construct scatterplots and comment on the association between the 2 numerical variables in terms of strength, direction and linearity.

Teaching focus

Students construct scatterplots using authentic datasets and interpret the association between two numerical variables. They describe relationships in terms of strength, direction and linearity while considering how data can support informed financial decision-making.

What students are learning

Students collect, organise and represent bivariate data using scatterplots. They investigate associations between two numerical variables, describing whether the relationship is positive or negative, strong or weak, and linear or non-linear. Using authentic financial datasets, students investigate how associations can support financial decision-making while recognising that correlation does not establish cause and effect.

Why this matters

Financial decisions are often informed by patterns in data. Governments, businesses and financial organisations examine relationships between variables such as income and spending, education and earnings, investment risk and return, or age and superannuation balances. Understanding how to interpret scatterplots enables students to evaluate financial information critically and recognise that observed relationships should be interpreted carefully. These skills help students become more critical consumers of financial information by distinguishing statistical evidence from unsupported claims.

Common misconceptions

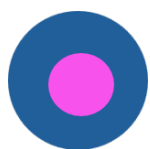
- Assuming every scatterplot shows a strong relationship.
- Believing that a relationship always indicates one variable causes the other.
- Ignoring outliers that may influence the overall pattern.
- Describing trends without considering the strength or linearity of the association.

Real-world connections

Financial analysts, economists and researchers regularly use scatterplots to investigate relationships between variables and identify trends in financial data. Consumers also encounter graphs when comparing investments, wages, property prices and economic indicators. Interpreting these visual representations helps students become more informed and critical users of financial information.

Professional practice

Use authentic financial datasets from sources such as the Australian Bureau of Statistics or the Reserve Bank of Australia to engage students in meaningful investigations. Encourage students to describe associations using appropriate statistical language and discuss possible explanations for observed patterns while recognising that scatterplots identify patterns and associations rather than demonstrating causal relationships.



Classroom implementation



Classroom activities

- Construct a scatterplot showing the association between years of education and average income using publicly available Australian data, then describe the strength, direction and linearity of the relationship.
- Investigate the association between age and superannuation balances using national statistics, discussing factors that may influence the observed pattern.
- Compare household income and weekly expenditure using authentic datasets and interpret the strength of the association.
- Construct scatterplots using historical investment data to investigate the association between risk and long-term returns, discussing why correlation does not necessarily imply causation.
- Analyse class survey data to investigate relationships between hours worked and weekly earnings, or hours worked and savings, identifying any outliers and considering their influence.
- Compare different financial datasets to determine which variables appear strongly associated and discuss possible explanations for the observed patterns.

Building mathematical and financial language

- scatterplot
- bivariate data
- positive association
- negative association
- strength
- direction
- linearity
- trend
- outlier
- variable

Assessment opportunities

- Construct accurate scatterplots from authentic financial datasets.
- Describe the strength, direction and linearity of associations.
- Identify outliers and explain their influence on interpretation.
- Distinguish between association and causation.
- Interpret statistical evidence within authentic financial contexts.
- Communicate conclusions using appropriate statistical and financial language.

Differentiation

Support

- Provide partially completed scatterplots, structured data tables and guiding questions to help students identify trends, describe associations and recognise outliers before conducting independent analyses.
- Begin with familiar datasets involving income, spending or savings before progressing to more complex economic or investment data.

Extension

- Challenge students to investigate authentic financial datasets from government or financial institutions, compare multiple scatterplots and evaluate the strength and limitations of the observed associations.
- Ask students to identify a contemporary financial question, source appropriate data, construct scatterplots using digital tools and present an evidence-based interpretation that clearly distinguishes association from causation.



AC9M10ST05

Plan and conduct statistical investigations of situations that involve bivariate data; evaluate and report findings with consideration of limitations of any inferences.

Teaching focus

Students plan and conduct statistical investigations using bivariate data to explore authentic financial questions. They collect, organise and analyse data, evaluate the strength of their findings, recognise the limitations of their conclusions, and communicate evidence-based recommendations.

What students are learning

Students plan, conduct and evaluate statistical investigations by posing questions, selecting or collecting appropriate bivariate data, analysing relationships between variables and interpreting their findings. They evaluate the reliability of their conclusions by considering factors such as sample size, data quality, outliers and potential sources of bias. Students communicate evidence-based findings using appropriate statistical language, visual representations and careful consideration of the limitations of their conclusions.

Why this matters

Many financial decisions are informed by evidence gathered from data. Governments, businesses and financial organisations use statistical investigations to understand spending patterns, investment behaviour, consumer confidence and broader economic trends. Learning how to evaluate evidence and recognise the limitations of statistical conclusions helps students become more informed consumers of financial information and more confident decision-makers. These capabilities help students distinguish high-quality evidence from unsupported claims when making financial decisions.

Common misconceptions

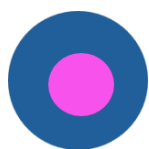
- Assuming that an observed association proves cause and effect.
- Generalising findings from a small or unrepresentative sample.
- Ignoring limitations in the data collection process.
- Believing statistical investigations always produce definitive answers.

Real-world connections

Banks, researchers, economists and government agencies conduct statistical investigations to understand financial behaviour, identify trends and evaluate policies. Consumers also rely on published surveys and research when making decisions about employment, investing, borrowing and spending. Understanding how investigations are designed and interpreted enables students to critically evaluate financial information.

Professional practice

Provide students with opportunities to investigate authentic financial questions using publicly available datasets or class-generated data. Encourage students to justify their investigation design, evaluate the quality of their evidence and reflect on the limitations of their conclusions. Emphasise that sound financial decisions depend on reliable evidence, transparent methods and thoughtful interpretation rather than assumptions or isolated statistics.



Classroom implementation

Classroom activities

- Plan and conduct an investigation into the relationship between hours worked and weekly income using class survey data, then evaluate the reliability of the conclusions.
- Investigate whether age is associated with superannuation balances using publicly available Australian datasets, discussing the limitations of the available evidence.
- Analyse the relationship between education and average earnings using Australian Bureau of Statistics data and evaluate the strength of any inferences that can be made.
- Critically evaluate financial claims reported in the media by investigating the underlying data, assessing sampling methods and discussing the limitations of the conclusions presented.
- Design and conduct an independent statistical investigation addressing an authentic financial question, then present evidence-based findings and recommendations supported by appropriate statistical analysis.

Building mathematical and financial language

- statistical investigation
- bivariate data
- variable
- scatterplot
- association
- sample
- population
- bias
- outlier
- limitation
- inference

Assessment opportunities

- Plan and conduct a statistical investigation using bivariate financial data.
- Collect, organise and analyse data appropriately.
- Interpret findings using appropriate statistical language and visual representations.
- Evaluate the limitations of the investigation and the strength of any inferences.
- Justify evidence-based conclusions and recommendations.
- Communicate findings clearly using appropriate mathematical, statistical and financial language.

Differentiation

Support

- Provide investigation templates, structured datasets and guiding questions to help students formulate research questions, organise data and interpret findings before conducting independent investigations.
- Begin with class-generated data before progressing to larger public financial datasets requiring more sophisticated analysis.

Extension

- Challenge students to design and conduct an independent investigation using authentic financial data from government or financial organisations, critically evaluating sampling methods, data quality, limitations and the validity of their conclusions.
- Ask students to investigate a contemporary financial issue, compare findings across multiple datasets and present a research-style report that justifies conclusions, acknowledges limitations and proposes directions for further investigation.

WA Financial Mathematics Curriculum

Explore, explain and calculate income tax, including the use of tax tables.

Students investigate how Australia's income tax system works by calculating tax payable using tax tables and interpreting authentic financial information. They explore how tax is calculated, compare gross and net income, and recognise the role of taxation in funding public goods and services while developing confidence in interpreting employment-related financial information.

Apply repeated simple interest to develop the compound interest formula and solve problems that relate to saving and borrowing.

Students investigate how repeated percentage growth leads to compound interest and use the compound interest formula to solve authentic financial problems involving saving, investing and borrowing. They compare simple and compound interest, model long-term financial outcomes, and recognise how time and interest rates influence financial decisions.

Year 10 optional

Use authenticated websites to investigate how changes to the principal, rate of return, voluntary contributions and time can affect superannuation balances

Students use trusted online calculators and superannuation tools to investigate how changing the starting balance, investment returns, voluntary contributions and investment timeframes influences long-term superannuation balances. They use mathematical modelling to compare scenarios and evaluate strategies for building retirement savings.

or

Compare characteristics of insurance, such as young driver car insurance or holiday insurance, and recognise that the cost is higher when the risk is higher.

Students compare insurance products by investigating how factors such as age, driving history, destination and level of cover influence premiums. They recognise that higher-risk situations generally attract higher insurance costs and apply mathematical reasoning to compare policies and evaluate value for money.



Marshmallow Money Connections

Student books

- **Superannuation** – selected pages exploring how superannuation works (pp. 9–14), the power of compound growth (pp. 15–18), how money flows into super, including employer contributions and the Super Guarantee (pp. 19–28), where super is invested and investment options (pp. 29–33, 48–55), fees and insurance (pp. 34–38), starting your super journey (pp. 39–47), and planning for retirement (pp. 64–72).
- **Investing** – selected pages exploring risk and return (pp. 12–15), asset classes and how different investments generate growth and income (pp. 16–75), diversification (pp. 76–80), and investing in the share market, including capital growth and dividend income (pp. 81–86).
- **Tax** – selected pages exploring Australia's tax system (pp. 20–33), GST (pp. 28–31), starting work, payslips, gross and net income, PAYG withholding, employer superannuation contributions and tax file numbers (pp. 34–45), and keeping tax records and lodging a tax return (pp. 46–55).
- **Buying a Car** – selected pages exploring depreciation and appreciation, the total cost of vehicle ownership (pp. 32–46), insurance costs (pp. 35–37), paying for a car and comparing borrowing options (pp. 47–58), consumer rights and responsibilities (pp. 59–66).

- **Saving** – selected pages exploring simple and compound interest (pp. 25–36), banks, credit unions and building societies (pp. 33–38), and inflation and the changing value of money (pp. 37–39).

Educator Support Pack

Investing

- **Worksheet 2** – students investigate risk and return, inflation, real returns, time horizon and investment decision-making through authentic financial scenarios.
- **Worksheet 4** – students calculate percentage returns, real returns, compound growth, capital gains, dividend income, dividend yield and total return, comparing investment performance using authentic financial data.
- **Worksheet 5** – students evaluate investment claims, identify financial risks and assumptions, investigate greenwashing and insider trading, and justify investment decisions using evidence and critical reasoning.

Superannuation

- **Worksheet 2** – students interpret payslips, compare super funds, evaluate fees, investment options and long-term financial decisions.
- **Worksheet 4** – students calculate Super Guarantee contributions, contribution tax, percentage returns and compound growth using authentic financial scenarios.
- **Worksheet 5** (teacher discretion) – students evaluate retirement planning scenarios, long-term financial trade-offs and the factors that influence retirement outcomes.

Tax

- **Worksheet 3** – students interpret payslips, compare gross and net income, investigate tax file numbers and tax returns.
- **Worksheet 4** – students calculate income tax using progressive tax brackets and distinguish between marginal and average tax rates.

Buying a Car

- **Worksheet 4** – students calculate depreciation, insurance, annual ownership costs and total cost of ownership using authentic financial scenarios.
- **Worksheet 5** – students evaluate financial decisions using evidence, assumptions and consumer information.

Suggested classroom connections

- Model compound interest and investment growth using spreadsheets, investigating how changes in interest rates, rates of return, contribution amounts and time affect long-term outcomes.
- Compare superannuation investment options by analysing risk, return, fees and long-term growth, and evaluate how different investment choices influence retirement savings.
- Calculate and compare total investment returns by considering capital growth, dividend income and inflation.
- Compare borrowing options for a major purchase, investigating how loan amount, interest rate and repayment period influence the total cost of borrowing.
- Investigate the total cost of owning a vehicle by modelling depreciation, insurance, registration, fuel and maintenance costs over time.
- Interpret financial data using scatterplots and authentic datasets to investigate relationships between variables such as age and superannuation balances, education and income, or risk and return.
- Evaluate financial claims using evidence, identifying assumptions, limitations and potential sources of bias before making recommendations.

