

## **ENTERPRISE CASE STUDY**

[YEAR 6 – ENGLISH](#)

[YEAR 6 – MATHEMATICS](#)

## New South Wales syllabus mapped to MoneySmart Teaching Primary unit – Innovation and enterprising behaviours: A case study

**Resource title:** Bulimba State School market day

**Year level:** 6

**Key learning areas:** English

### National Consumer and Financial Literacy Framework

#### **Dimension: Knowledge and understanding (Year 6)**

**Student learnings:** Describe how an individual can influence their income  
Analyse the value of a range of goods and services in relation to an identified need

#### **Dimension: Responsibility and enterprise (Year 6)**

**Student learnings:** Evaluate the value of a range of goods and services in a variety of 'real-life' situations  
Use a range of methods and tools to keep financial records in 'real-life' contexts  
Create simple budgets for a range of purposes and explain the benefits of saving for future needs and wants  
Order and justify reasons for spending preferences  
Identify key features used in advertising, marketing and social media to influence consumer decision-making

#### **Dimension Responsibility and enterprise (Year 6)**

**Student learning:** Explain there are ethical considerations to some consumer and financial decisions  
Apply consumer and financial knowledge and skills in relevant class and/or school activities such as student investigations, charity fundraising, product design and development, business ventures and special events exercise a range of enterprising behaviours through participation in relevant class and/or school activities

**Stage 1 Stage Statements:** This unit of work contributes to the following stage statements for Stage 1 (highlighted)

#### **ENGLISH**

By the end of Stage 3 students communicate effectively, using considered language to entertain, inform and persuade audiences for an increasing range of purposes. They work productively and independently in pairs or groups to deliver effective presentations using various skills and strategies. Students collaborate with others to share and evaluate ideas and opinions and to develop different points of view. They express well-developed and well-organised ideas about literary texts and respond constructively to different opinions. They demonstrate active listening behaviours in order to gather specific information and ideas, recognising and exploring how spoken and written language differs and how spoken language varies according to context. Students evaluate characteristic language features and organisational patterns of challenging spoken texts.

Students independently read and view an extensive range of complex texts and visual images using a comprehensive range of skills and strategies. They respond to themes and issues within texts, recognise point of view and justify interpretations by referring to their own knowledge, values and experiences. They identify, critically analyse and respond to techniques, literary devices and language features used by writers to influence readers. Students compare and accurately summarise information on a particular topic from different texts and make well-supported generalisations about the topic. Students identify text structure of a range of complex texts and explore how grammatical features work to influence an audience's understanding of written, visual, media and multimodal texts.

Students create well-structured and well-presented written and multimodal imaginative, informative and persuasive texts for a wide range of purposes and audiences. They deal with complex topics, issues and language features. Students select information and ideas from personal, literary and researched resources, and adapt imaginative ideas and situations from literature. They make considered choices in written texts from an expanding vocabulary and from growing knowledge of grammatical patterns, complex sentence structures, cohesive links and literary devices. Students write well-structured sentences and paragraphs on particular aspects of the topic, clarifying and explaining how choices of language and literary features were designed to influence the meaning communicated in their texts. They spell most common words accurately and use a variety of strategies to spell less common words. They develop a fluent writing style and employ digital technology to present written texts effectively in a variety of ways for different purposes and audiences. Students evaluate the effectiveness of their writing by drafting, proofreading, editing, reviewing and publishing, focusing on grammatical features and the conventions of writing.

Australian Curriculum	NSW syllabus	
ENGLISH	ENGLISH	CONTENT
<p><b>Strand</b> Language</p> <p><b>Sub-strand</b> Language for interaction</p> <p>Understand the uses of objective and subjective language and bias <b>(ACELA1517)</b></p>	<p><b>Responding and composing EN3-5B</b></p> <p>Discusses how language is used to achieve a widening range of purposes for a widening range of audiences and contexts</p>	<p>Students:</p> <p>Understand and apply knowledge of language forms and features</p> <ul style="list-style-type: none"> <li>– understand the uses of objective and subjective language and bias (ACELA1517)</li> </ul> <p>Respond to and compose texts</p> <ul style="list-style-type: none"> <li>– compose more complex texts using a variety of forms appropriate to purpose and audience</li> <li>– recognise the techniques used by writers to position a reader and influence their point of view</li> <li>– identify and use a variety of strategies to present information and opinions across a range of texts</li> <li>– consider and develop sustained arguments and discussions supported by evidence</li> </ul>
<p><b>Strand</b> Language</p> <p><b>Sub-strand</b> Text structure and organisation</p> <p>Understand how authors often innovate on text structures and play with language features to achieve particular aesthetic, humorous and persuasive purposes and effects <b>(ACELA1518)</b></p>	<p><b>Thinking ,imaginatively, creatively, interpretively and critically EN3-7C</b></p> <p>Thinks imaginatively, creatively, interpretively and critically about information and ideas and the connections between texts when responding to and composing texts</p>	<p>Students:</p> <p>Understand and apply knowledge of language forms and features</p> <ul style="list-style-type: none"> <li>– understand how authors often innovate on text structures and play with language features to achieve particular aesthetic, humorous and persuasive purposes and effects <b>(ACELA1518)</b></li> </ul>
<p><b>Strand</b> Language</p> <p><b>Sub-strand</b> Expressing and developing</p>	<p><b>Reading and viewing EN3-3A</b></p> <p>Uses an integrated range of skills, strategies and</p>	<p>Students:</p>

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<p>ideas</p> <p>Identify and explain how analytical images like figures, tables, diagrams, maps and graphs contribute to our understanding of verbal information in factual and persuasive texts <b>(ACELA1524)</b></p>	<p>knowledge to read, view and comprehend a wide range of texts in different media and technologies</p>	<p>Understand and apply knowledge of language forms and features</p> <ul style="list-style-type: none"> <li>– identify and explain how analytical images like figures, tables, diagrams, maps and graphs contribute to our understanding of verbal information in factual and persuasive texts <b>(ACELA1524)</b></li> </ul>
<p><b>Strand</b> Language</p> <p><b>Sub-strand</b> Expressing and developing ideas</p> <p>Investigate how vocabulary choices, including evaluative language can express shades of meaning, feeling and opinion <b>(ACELA1525)</b></p>	<p><b>Grammar, punctuation and vocabulary EN3-6B</b></p> <p>Uses knowledge of sentence structure, grammar, punctuation and vocabulary to respond to and compose clear and cohesive texts in different media and technologies</p>	<p>Students:</p> <p>Understand and apply knowledge of vocabulary</p> <ul style="list-style-type: none"> <li>– investigate how vocabulary choices, including evaluative language can express shades of meaning, feeling and opinion <b>(ACELA1525)</b></li> </ul>
<p><b>Strand</b> Literature</p> <p><b>Sub-strand</b> Responding to literature</p> <p>Identify and explain how choices in language, for example modality, emphasis, repetition and metaphor, influence personal response to different texts <b>(ACELT1615)</b></p>	<p><b>Grammar, punctuation and vocabulary EN3-6B</b></p> <p>Uses knowledge of sentence structure, grammar, punctuation and vocabulary to respond to and compose clear and cohesive texts in different media and technologies</p>	<p>Students:</p> <p>Understand and apply knowledge of language forms and features</p> <ul style="list-style-type: none"> <li>– identify and explain how choices in language, for example modality, emphasis, repetition and metaphor, influence personal response to different texts <b>(ACELT1615)</b></li> </ul>
<p><b>Strand</b> Literacy</p> <p><b>Sub-strand</b> Texts in context</p> <p>Compare texts including media texts that represent ideas and events in different ways, explaining the effects of the different approaches <b>(ACELY1708)</b></p>	<p><b>Reading and viewing EN3-3A</b></p> <p>Uses an integrated range of skills, strategies and knowledge to read, view and comprehend a wide range of texts in different media and technologies</p>	<p>Students:</p> <p>Understand and apply knowledge of language forms and features</p> <ul style="list-style-type: none"> <li>– compare texts including media texts that represent ideas and events in different ways, explaining the effects of the different approaches <b>(ACELY1708)</b></li> </ul>
<p><b>Strand</b> Literacy</p> <p><b>Sub-strand</b> Interacting with others</p> <p>Participate in and contribute to discussions, clarifying and interrogating</p>	<p><b>Speaking and listening EN3-1A</b></p> <p>Communicates effectively for a variety of audiences and purposes using increasingly challenging topics, ideas, issues and language forms and features</p>	<p>Students:</p> <p>Respond to and compose texts</p> <ul style="list-style-type: none"> <li>– participate in and contribute to discussions, clarifying and interrogating ideas, developing and supporting arguments,</li> </ul>

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<p>ideas, developing and supporting arguments, sharing and evaluating information, experiences and opinions <b>(ACELY1709)</b></p>		<p>sharing and evaluating information, experiences and opinions <b>(ACELY1709)</b></p>
<p><b>Strand</b> Literacy</p> <p><b>Sub-strand</b> Interacting with others</p> <p>Plan, rehearse and deliver presentations, selecting and sequencing appropriate content and multimodal elements for defined audiences and purposes, making appropriate choices for modality and emphasis <b>(ACELY1710)</b></p>	<p><b>Speaking and listening EN3-1A</b></p> <p>Communicates effectively for a variety of audiences and purposes using increasingly challenging topics, ideas, issues and language forms and features</p>	<p>Students:</p> <p>Respond to and compose texts</p> <ul style="list-style-type: none"> <li>– plan, rehearse and deliver presentations, selecting and sequencing appropriate content and multimodal elements for defined audiences and purposes, making appropriate choices for modality and emphasis (ACELY1700, <b>ACELY1710</b>)</li> </ul>
<p><b>Strand</b> Literacy</p> <p><b>Sub-strand</b> Interpreting, analysing, evaluating</p> <p>Use comprehension strategies to interpret and analyse information and ideas, comparing content from a variety of textual sources including media and digital texts <b>(ACELY1713)</b></p>	<p><b>Reading and viewing EN3-2A</b></p> <p>Uses an integrated range of skills, strategies and knowledge to read, view and comprehend a wide range of texts in different media and technologies</p>	<p>Students:</p> <p>Respond to, read and view texts</p> <ul style="list-style-type: none"> <li>– set comprehension strategies to interpret and analyse information and ideas, comparing content from a variety of textual sources including media and digital texts (ACELY1703, <b>ACELY1713</b>)</li> </ul>
<p><b>Strand</b> Literacy</p> <p><b>Sub-strand</b> Interpreting, analysing, evaluating</p> <p>Analyse strategies authors use to influence readers <b>(ACELA1801)</b></p>	<p><b>Responding and composing EN3- 5B</b></p> <p>Discusses how language is used in their own writing to achieve a widening range of purposes, audiences and contexts</p>	<p>Students:</p> <p>Understand and apply knowledge of language forms and features</p> <ul style="list-style-type: none"> <li>– analyse strategies authors use to influence readers <b>(ACELA1801)</b></li> </ul>
<p><b>Strand</b> Literacy</p> <p><b>Sub-strand</b> Creating texts</p> <p>Plan, draft and publish imaginative, informative and persuasive texts, choosing and experimenting with text</p>	<p><b>Writing and representing EN3-2A</b></p> <p>Composes, edits and presents well-structured and coherent text</p>	<p>Students:</p> <p>Understand and apply knowledge of language forms and features</p> <ul style="list-style-type: none"> <li>– plan, draft and publish imaginative, informative and persuasive texts, choosing and experimenting with text structures, language features, images and digital resources</li> </ul>

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structures, language features, images and digital resources appropriate to purpose and audience (**ACELY1714**)

appropriate to purpose and audience (ACELY1704, **ACELY1714**)

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**Resource title:** Bulimba State School market day

**Year level:** 6

**Key learning areas:** Mathematics

### National Consumer and Financial Literacy Framework

#### **Dimension: Knowledge and understanding (Year 6)**

*Student learnings:* Describe how an individual can influence their income  
Analyse the value of a range of goods and services in relation to an identified need

#### **Dimension: Responsibility and enterprise (Year 6)**

*Student learnings:* Evaluate the value of a range of goods and services in a variety of 'real-life' situations  
Use a range of methods and tools to keep financial records in 'real-life' contexts  
Create simple budgets for a range of purposes and explain the benefits of saving for future needs and wants  
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*Student learning:* Explain there are ethical considerations to some consumer and financial decisions  
Apply consumer and financial knowledge and skills in relevant class and/or school activities such as student investigations, charity fundraising, product design and development, business ventures and special events exercise a range of enterprising behaviours through participation in relevant class and/or school activities

**Stage 1 Stage Statements:** This unit of work contributes to the following stage statements for Stage 1 (highlighted)

#### **MATHEMATICS**

By the end of Stage 3, students ask questions and undertake investigations, selecting appropriate technological applications and problem-solving strategies to demonstrate fluency in mathematical techniques. They use mathematical terminology and some conventions, and they give valid reasons when comparing and selecting from possible solutions, making connections with existing knowledge and understanding.

Students select and apply appropriate mental, written or calculator strategies for the four operations and check the reasonableness of answers using estimation. They solve word problems and apply the order of operations to number sentences where required. Students identify factors and multiples and recognise the properties of prime, composite, square and triangular numbers. They connect fractions, decimals and percentages as different representations of the same value. Students compare, order and perform calculations with simple fractions, decimals and percentages and apply the four operations to money in real-life situations. Students record, describe and continue geometric and number patterns, and they find missing numbers in number sentences. They locate an ordered pair in any one of the four quadrants on the Cartesian plane.

Students select and use the appropriate unit to estimate, measure and calculate length, area, volume, capacity and mass. They make connections between capacity and

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volume, and solve problems involving length and area. Students use 24-hour time in real-life situations, construct and interpret timelines and use timetables. They convert between units of length, units of capacity and units of mass. They construct and classify three-dimensional objects and two-dimensional shapes, and compare and describe their features, including line and rotational symmetries. Students measure and construct angles, and find unknown angles in diagrams using known angle results. They use a grid-reference system to locate landmarks and describe routes using landmarks and directional language.

Students use appropriate data collection methods to interpret and analyse sets of data and construct a range of data displays. They assign probabilities as fractions, decimals or percentages in simple chance experiments.

Australian Curriculum	NSW syllabus													
<b>MATHEMATICS</b>	<b>MATHEMATICS</b>	<b>CONTENT</b>												
<p><b>Strand</b> Statistics and probability</p> <p><b>Sub-strand</b> Data representation and interpretation</p> <p>Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables <b>(ACMSP147)</b></p>	<p><b>Data 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3 -1WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Uses appropriate methods to collect data and constructs, interprets and evaluates data displays, including dot plots, line graphs and two-way tables <b>(MA3-18SP)</b></p>	<p>Students:</p> <p>Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables <b>(ACMSP147)</b></p> <ul style="list-style-type: none"> <li>– interpret information presented in two-way tables</li> <li>– create a two-way table to organise data involving two categorical variables, eg</li> </ul> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Drinks</th> <th>Boys</th> <th>Girls</th> </tr> </thead> <tbody> <tr> <td>Milk</td> <td>5</td> <td>6</td> </tr> <tr> <td>Water</td> <td>3</td> <td>2</td> </tr> <tr> <td>Juice</td> <td>2</td> <td>1</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>– interpret side-by-side column graphs for two categorical variables, eg favourite television show of students in Year 1 compared to that of students in Year 6</li> <li>– interpret and compare different displays of the same data set to determine the most appropriate display for the data set                             <ul style="list-style-type: none"> <li>○ compare the effectiveness of different student-created data displays (Communicating)</li> <li>○ discuss the advantages and disadvantages of different representations of the same data (Communicating)</li> <li>○ explain which display is the most appropriate for interpretation of a particular data set (Communicating, Reasoning)</li> <li>○ compare representations of the same data set in a side-by-side column graph and in a two-way table (Reasoning)</li> </ul> </li> </ul>	Drinks	Boys	Girls	Milk	5	6	Water	3	2	Juice	2	1
Drinks	Boys	Girls												
Milk	5	6												
Water	3	2												
Juice	2	1												



<p><b>Strand</b> Statistics and probability</p> <p><b>Sub-strand</b> Data representation and interpretation</p> <p>Interpret secondary data presented in digital media and elsewhere <b>(ACMSP148)</b></p>	<p><b>Data 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Uses appropriate methods to collect data and constructs, interprets and evaluates data displays, including dot plots, line graphs and two-way tables <b>(MA3-18SP)</b></p>	<p>Students:</p> <p>Interpret secondary data presented in digital media and elsewhere <b>(ACMSP148)</b></p> <ul style="list-style-type: none"> <li>– interpret data representations found in digital media and in factual texts             <ul style="list-style-type: none"> <li>○ interpret tables and graphs from the media/internet, eg data about different sports teams (Reasoning)</li> <li>○ identify and describe conclusions that can be drawn from a particular representation of data (Communicating, Reasoning)</li> </ul> </li> <li>– critically evaluate data representations found in digital media and their related claims             <ul style="list-style-type: none"> <li>○ discuss the messages the people who created a particular data representation might have wanted to convey (Communicating)</li> <li>○ identify sources of possible bias in representations of data in the media by discussing various influences on data collection and representation, eg who created/paid for the data collection or whether the representation is part of an advertisement (Communicating, Reasoning)</li> <li>○ identify misleading representations of data in the media, eg broken axes or graphics that are not drawn to scale (Reasoning)</li> </ul> </li> </ul>
<p><b>Strand</b> Measurement and geometry</p> <p><b>Sub-strand</b> Using units of measurement</p> <p>Connect decimal representations to the metric system <b>(ACMMG135)</b></p>	<p><b>Length 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving strategies, including technological applications, in undertaking investigations <b>(MA3-2WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Selects and uses the appropriate unit and device</p>	<p>Students:</p> <p>Connect decimal representations to the metric system <b>(ACMMG135)</b></p> <ul style="list-style-type: none"> <li>– recognise the equivalence of whole-number and decimal representations of measurements of length, eg 165 cm is the same as 1.65 m</li> <li>– interpret decimal notation for lengths and distances, eg 13.5 cm is 13 centimetres and 5 millimetres</li> <li>– record lengths and distances using decimal notation to three decimal places, eg 2.753 km</li> </ul>

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	<p>to measure lengths, distances and perimeters, and converts between units of length <b>(MA3-9MG)</b></p>	
<p><b>Strand</b> Measurement and geometry</p> <p><b>Sub-strand</b> Using units of measurement</p> <p>Convert between common metric units of length, mass and capacity <b>(ACMMG136)</b></p>	<p><b>Length 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving strategies, including technological applications, in undertaking investigations <b>(MA3-2WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Selects and uses the appropriate unit and device to measure lengths, distances and perimeters, and converts between units of length <b>(MA3-9MG)</b></p>	<p>Students:</p> <p>Convert between common metric units of length, mass and capacity <b>(ACMMG136)</b></p> <ul style="list-style-type: none"> <li>– convert between metres and kilometres</li> <li>– convert between millimetres, centimetres and metres to compare lengths and distances</li> <li>– explain and use the relationship between the size of a unit and the number of units needed to assist in determining whether multiplication or division is required when converting between units, eg 'More metres than kilometres will be needed to measure the same distance, and so to convert from kilometres to metres, I need to multiply' (Communicating, Reasoning)</li> </ul>
<p><b>Strand</b> Measurement and geometry</p> <p><b>Sub-strand</b> Solve problems involving the comparison of lengths and areas using appropriate units <b>(ACMMG137)</b></p>	<p><b>Length 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving strategies, including technological applications, in undertaking investigations <b>(MA3-2WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Selects and uses the appropriate unit and device to measure lengths, distances and perimeters, and converts between units of length <b>(MA3-9MG)</b></p>	<p>Students:</p> <p>Solve problems involving the comparison of lengths and areas using appropriate units <b>(ACMMG137)</b></p> <ul style="list-style-type: none"> <li>– investigate and compare perimeters of rectangles with the same area <ul style="list-style-type: none"> <li>○ determine the number of different rectangles that can be formed using whole-number side lengths for a given area (Problem Solving, Reasoning)</li> </ul> </li> <li>– solve problems involving different units of length, eg 'Find the total length of three items measuring 5 mm, 20 cm and 1.2 m'</li> </ul>
<p><b>Strand</b> Measurement and geometry</p> <p><b>Sub-strand</b> Using units of measurement</p> <p>Connect volume and capacity and their units of</p>	<p><b>Volume and capacity 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions</p>	<p>Students:</p> <p>Connect volume and capacity and their units of measurement <b>(ACMMG138)</b></p> <ul style="list-style-type: none"> <li>– select the appropriate unit to measure volume and</li> </ul>

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<p>measurement (<b>ACMMG138</b>)</p>	<p><b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving strategies, including technological applications, in undertaking investigations (<b>MA3-2WM</b>)</p> <p>Gives a valid reason for supporting one possible solution over another (<b>MA3-3WM</b>)</p> <p>Selects and uses the appropriate unit to estimate, measure and calculate volumes and capacities, and converts between units of capacity (<b>MA3-11MG</b>)</p>	<p>capacity, eg cubic centimetres for volume but millilitres for capacity</p> <ul style="list-style-type: none"> <li>– demonstrate that a cube of side 10 cm will displace 1 litre of water</li> <li>– demonstrate, by using a medicine cup, that a cube of side 1 cm will displace 1 mL of water</li> <li>– equate 1 cubic centimetre to 1 millilitre and 1000 cubic centimetres to 1 litre</li> <li>– find the volume of irregular solids in cubic centimetres using a displacement strategy</li> </ul>
<p><b>Strand</b> Number and algebra</p> <p><b>Sub-strand</b> Number and place value</p> <p>Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers (<b>ACMNA123</b>)</p>	<p><b>Addition and subtraction 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions (<b>MA3-1WM</b>)</p> <p>Selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations (<b>MA3-2WM</b>)</p> <p>Gives a valid reason for supporting one possible solution over another (<b>MA3-3WM</b>)</p> <p>Selects and applies appropriate strategies for addition and subtraction with counting numbers of any size (<b>MA3-5NA</b>)</p>	<p>Students:</p> <p>Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving addition and subtraction with whole numbers (<b>ACMNA123</b>)</p> <ul style="list-style-type: none"> <li>– solve addition and subtraction word problems involving whole numbers of any size, including problems that require more than one operation, eg 'I have saved \$40 000 to buy a new car. The basic model costs \$36 118 and I add tinted windows for \$860 and Bluetooth connectivity for \$1376. How much money will I have left over?'             <ul style="list-style-type: none"> <li>○ select and apply appropriate mental and written strategies, with and without the use of digital technologies, to solve unfamiliar problems (Problem Solving)</li> <li>○ explain how an answer was obtained for an addition or subtraction problem and justify the selected calculation method (Communicating, Problem Solving, Reasoning)</li> <li>○ reflect on their chosen method of solution for a problem, considering whether it can be improved (Communicating, Reasoning)</li> <li>○ give reasons why a calculator was useful when solving a problem (Communicating, Reasoning)</li> </ul> </li> <li>– record the strategy used to solve addition and subtraction word problems             <ul style="list-style-type: none"> <li>○ use selected words to describe each step of the solution process (Communicating, Problem Solving, Reasoning)</li> </ul> </li> </ul>

		Solving)
<p><b>Strand</b> Number and algebra</p> <p><b>Sub-strand</b> Fractions and decimals</p> <p>Solve problems involving addition and subtraction of fractions with the same or related denominators <b>(ACMNA126)</b></p>	<p><b>Fractions and decimals 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations <b>(MA3-2WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Compares, orders and calculates with fractions, decimals and percentages <b>(MA3-7NA)</b></p>	<p>Students:</p> <p>Solve problems involving addition and subtraction of fractions with the same or related denominators <b>(ACMNA126)</b></p> <ul style="list-style-type: none"> <li>– add and subtract fractions, including mixed numerals, where one denominator is the same as, or a multiple of, the other, eg             <ul style="list-style-type: none"> <li>○ convert an answer that is an improper fraction to a mixed numeral (Communicating)</li> <li>○ use knowledge of equivalence to simplify answers when adding and subtracting fractions (Communicating, Reasoning)</li> <li>○ recognise that improper fractions may sometimes make calculations involving mixed numerals easier (Communicating)</li> </ul> </li> <li>– solve word problems involving the addition and subtraction of fractions where one denominator is the same as, or a multiple of the other, eg 'I ate <math>\frac{1}{8}</math> of a cake and my friend ate <math>\frac{1}{4}</math> of the cake. What fraction of the cake remains?'</li> <li>– multiply simple fractions by whole numbers using repeated addition, leading to a rule, eg</li> </ul> <p>leading to <math>\frac{2}{5} \times 3 = \frac{2}{5} + \frac{2}{5} + \frac{2}{5} = \frac{6}{5} = 1\frac{1}{5}</math></p> <p>leading to <math>\frac{2}{5} \times 3 = \frac{2 \times 3}{5} = \frac{6}{5} = 1\frac{1}{5}</math></p>
<p><b>Strand</b> Number and algebra</p> <p><b>Sub-strand</b> Fractions and decimals</p> <p>Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies <b>(ACMNA127)</b></p>	<p><b>Fractions and decimals2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations <b>(MA3-2WM)</b></p>	<p>Students:</p> <p>Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies <b>(ACMNA127)</b></p> <ul style="list-style-type: none"> <li>– calculate unit fractions of a collection with and without digital technologies, eg calculate <math>\frac{1}{5}</math> of 30             <ul style="list-style-type: none"> <li>○ describe the connection between finding a unit fraction of a collection and the operation of division (Communicating, Problem Solving)</li> </ul> </li> <li>– calculate a simple fraction of a collection/quantity with and without digital technologies, eg calculate <math>\frac{2}{5}</math> of 30</li> </ul>

	<p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Compares, orders and calculates with fractions, decimals and percentages <b>(MA3-7NA)</b></p>	<ul style="list-style-type: none"> <li>○ explain how unit fractions can be used in the calculation of simple fractions of collections/quantities, eg 'To calculate <math>\frac{3}{8}</math> of a quantity, I found <math>\frac{1}{8}</math> of the collection first and then multiplied by 3.' (Communicating, Reasoning)</li> <li>– solve word problems involving a fraction of a collection/quantity</li> </ul>
<p><b>Strand</b> Number and algebra</p> <p><b>Sub-strand</b> Fractions and decimals</p> <p>Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers <b>(ACMNA128)</b></p>	<p><b>Fractions and decimals 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations <b>(MA3-2WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Compares, orders and calculates with fractions, decimals and percentages <b>(MA3-7NA)</b></p>	<p>Students:</p> <p>Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers <b>(ACMNA128)</b></p> <ul style="list-style-type: none"> <li>– add and subtract decimals with the same number of decimal places, with and without digital technologies</li> <li>– add and subtract decimals with a different number of decimal places, with and without digital technologies             <ul style="list-style-type: none"> <li>○ relate decimals to fractions to aid mental strategies (Communicating)</li> </ul> </li> <li>– round a number of up to three decimal places to the nearest whole number</li> <li>– use estimation and rounding to check the reasonableness of answers when adding and subtracting decimals             <ul style="list-style-type: none"> <li>○ describe situations where the estimation of calculations with decimals may be useful, eg to check the total cost of multiple items when shopping (Communicating, Problem Solving)</li> </ul> </li> <li>– solve word problems involving the addition and subtraction of decimals, including those involving money             <ul style="list-style-type: none"> <li>○ interpret a calculator display in the context of the problem, eg 2.6 means \$2.60 (Communicating)</li> </ul> </li> </ul>
<p><b>Strand</b> Number and algebra</p> <p><b>Sub-strand</b> Fractions and decimals</p> <p>Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the results are terminating decimals, with and without digital technologies <b>(ACMNA129)</b></p>	<p><b>Fractions and decimals 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving</p>	<p>Students:</p> <p>Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the result are terminating decimals, with and without digital technologies <b>(ACMNA129)</b></p> <ul style="list-style-type: none"> <li>– use mental strategies to multiply simple decimals by single-digit numbers eg <math>3.5 \times 2</math></li> <li>– multiply decimals (up to three decimal places) by whole numbers of up to two-digits, with and without digital</li> </ul>

	<p>strategies, including the use of digital technologies, in undertaking investigations <b>(MA3-2WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Compares, orders and calculates with fractions, decimals and percentages <b>(MA3-7NA)</b></p>	<p>technologies, eg 'I measured three desks. Each desk was 1.25 m in length, so the total length is <math>3 \times 1.25 = 3.75</math> m.'</p> <ul style="list-style-type: none"> <li>- divide decimals by a single-digit number where the result is a terminating decimal eg <math>5.25 \div 5 = 1.05</math></li> <li>- solve problems involving the multiplication and division of decimals, including those involving money, eg determine the 'best buy' for different size cartons of cans of soft drink</li> </ul>
<p><b>Strand</b> Number and algebra</p> <p><b>Sub-strand</b> Fractions and decimals</p> <p>Make connections between equivalent fractions, decimals and percentages <b>(ACMNA131)</b></p>	<p><b>Fractions and decimals 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations <b>(MA3-2WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Compares, orders and calculates with fractions, decimals and percentages <b>(MA3-7NA)</b></p>	<p>Students:</p> <p>Make connections between equivalent fractions, decimals and percentages <b>(ACMNA131)</b></p> <ul style="list-style-type: none"> <li>- recognise that the symbol % means 'percent'</li> <li>- represent common percentages as fractions and decimals, eg '25% means 25 out of 100 or <math>\frac{1}{4}</math> or 0.25'             <ul style="list-style-type: none"> <li>o recognise fractions, decimals and percentages as different representations of the same value (Communicating)</li> <li>o recall commonly used equivalent percentages, decimals and fractions, eg 75%, 0.75, <math>\frac{3}{4}</math> (Communicating)</li> </ul> </li> <li>- represent simple fractions as decimals and as percentages</li> <li>- interpret and explain the use of fractions, decimals and percentages in everyday contexts, eg , <math>\frac{3}{4}</math> hour = 45 minutes, percentage of native trees in the local area (Communicating, Reasoning)</li> <li>- represent decimals as fractions and percentages, eg <math>1.37 = 137\% = 137/100</math>, <math>137/100</math></li> </ul>
<p><b>Strand</b> Number and algebra</p> <p><b>Sub-strand</b> Money and financial mathematics</p> <p>Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies <b>(ACMNA132)</b></p>	<p><b>Fractions and decimals 2</b></p> <p>Describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions <b>(MA3-1WM)</b></p> <p>Selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations</p>	<p>Students:</p> <p>Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies <b>(ACMNA132)</b></p> <ul style="list-style-type: none"> <li>- equate 10% to <math>\frac{1}{10}</math>, 25% to <math>\frac{1}{4}</math> and 50% to <math>\frac{1}{2}</math></li> <li>- calculate simple percentages (10%, 25%, 50%) of quantities, with and without digital technologies</li> <li>- choose the most appropriate equivalent form of a percentage to aid calculation,</li> </ul>

<p><b>(MA3-2WM)</b></p> <p>Gives a valid reason for supporting one possible solution over another <b>(MA3-3WM)</b></p> <p>Compares, orders and calculates with fractions, decimals and percentages <b>(MA3-7NA)</b></p>	<p>eg <math>25\% \text{ of } \\$200 = \frac{1}{4} \text{ of } \\$200 = \\$200 \div 4 = \\$50</math> (Problem Solving)</p> <ul style="list-style-type: none"> <li>- use mental strategies to estimate discounts of 10%, 25% or 50%, eg '50% off the price of \$122.70; 50% is the same as , so the discount is approximately \$60'</li> <li>- calculate the sale price of an item after a discount of 10%, 25% or 50%, with and without digital technologies, recording the strategy and result</li> </ul>
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