

# NGPS Mathematics Yearly Overview Audit, 2021

	Term 1	Term 2	Term 3	Term 4
<b>F O U N D A T I O N</b>	<p><b>Title:</b> Number</p> <p><b>Big Idea:</b> Trust the Count, Counting, Place Value (Number Sense)</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20. moving from any starting point. <a href="#">(VCMNA069)</a></li> <li>Connect number names, numerals and quality, including zero, initially up to 10 and then beyond <a href="#">(VCMNA070)</a></li> <li>Subitise small collections of objects <a href="#">(VCMNA071)</a></li> <li>Compare, order and make correspondences between collections, initially to 20, and explain reasoning <a href="#">(VCMNA072)</a></li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra)</b></p> <ul style="list-style-type: none"> <li>Sort and classify familiar objects and explain the basis for these classifications, and copy, continue and create patterns with objects and drawings <a href="#">(VCMNA076)</a></li> <li>Follow a short sequence of instructions <a href="#">(VCMNA077)</a></li> </ul> <p><b>Statistics and Probability: (Data)</b></p> <ul style="list-style-type: none"> <li>Answer yes/no questions to collect information <a href="#">(VCMSP083)</a></li> <li>Organise answers to yes/no questions into simple data displays using objects and drawings <a href="#">(VCMSP084)</a></li> <li>Interpret simple data displays about yes/no questions <a href="#">(VCMSP085)</a></li> </ul> <p><b>Geometry: (Location)</b></p> <ul style="list-style-type: none"> <li>Describe position and movement <a href="#">(VCMMG082)</a></li> </ul>	<p><b>Title:</b> Counting and Place Value</p> <p><b>Big Idea:</b> Count, Recognise and represent numbers in the teens, Counting, Place Value (Number Sense)</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20. moving from any starting point. <a href="#">(VCMNA069)</a></li> <li>Connect number names, numerals and quality, including zero, initially up to 10 and then beyond <a href="#">(VCMNA070)</a></li> <li>Subitise small collections of objects <a href="#">(VCMNA071)</a></li> <li>Compare, order and make correspondences between collections, initially to 20, and explain reasoning <a href="#">(VCMNA072)</a></li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra)</b></p> <ul style="list-style-type: none"> <li>Sort and classify familiar objects and explain the basis for these classifications, and copy, continue and create patterns with objects and drawings <a href="#">(VCMNA076)</a></li> <li>Follow a short sequence of instructions <a href="#">(VCMNA077)</a></li> </ul> <p><b>Measurement: (Time)</b></p> <ul style="list-style-type: none"> <li>Compare and order the duration of events using the everyday language of time <a href="#">(VCMMG079)</a></li> <li>Connect days of the week to familiar events and actions <a href="#">(VCMMG080)</a></li> </ul> <p><b>Geometry: (2D Shape)</b></p> <ul style="list-style-type: none"> <li>Sort, describe and name familiar two-dimensional shapes and three-dimensional objects in the environment <a href="#">(VCMMG081)</a></li> </ul> <p><b>Pre/ Post Assessment:</b></p> <ul style="list-style-type: none"> <li><a href="#">Numeracy Online Interview</a> (Addition and Subtraction if required)</li> </ul>	<p><b>Title:</b> Addition and Subtraction</p> <p><b>Big Idea:</b> Addition and Subtraction, Pair of Numbers to make 10, Explore Count on and Count Back</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>Represent practical situations to model addition and subtraction <a href="#">(VCMNA073)</a></li> </ul> <p><b>Developed with Number and Place Value: (Money and Financial mathematics)</b></p> <ul style="list-style-type: none"> <li>Represent simple, everyday financial situations involving money <a href="#">(VCMNA075)</a></li> </ul> <p><b>Measurement: (Length, Capacity)</b></p> <ul style="list-style-type: none"> <li>Use direct and indirect comparisons to decide which is longer, heavier or holds more, and explain reasoning in everyday language <a href="#">(VCMMG078)</a></li> </ul> <p><b>Geometry: (3D Shape)</b></p> <ul style="list-style-type: none"> <li>Sort, describe and name familiar two-dimensional shapes and three-dimensional objects in the environment <a href="#">(VCMMG081)</a></li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>Teacher chosen assessment</li> </ul>	<p><b>Title:</b> Division</p> <p><b>Big Idea:</b> Practical applications for sharing and making groups.</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>Represent practical situations to model sharing <a href="#">(VCMNA074)</a></li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra)</b></p> <ul style="list-style-type: none"> <li>Sort and classify familiar objects and explain the basis for these classifications, and copy, continue and create patterns with objects and drawings <a href="#">(VCMNA076)</a></li> <li>Follow a short sequence of instructions <a href="#">(VCMNA077)</a></li> </ul> <p><b>Measurement: (Mass)</b></p> <ul style="list-style-type: none"> <li>Use direct and indirect comparisons to decide which is longer, heavier or holds more, and explain reasoning in everyday language <a href="#">(VCMMG078)</a></li> </ul> <p><b>Statistics and Probability: (Data)</b></p> <ul style="list-style-type: none"> <li>Answer yes/no questions to collect information <a href="#">(VCMSP083)</a></li> <li>Organise answers to yes/no questions into simple data displays using objects and drawings <a href="#">(VCMSP084)</a></li> <li>Interpret simple data displays about yes/no questions <a href="#">(VCMSP085)</a></li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>Teacher chosen assessment</li> </ul>

<b>G R A D E 1</b>	<p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Numeracy Online Interview</a> (Counting and Place Value Questions, Detour Test)</li> </ul> <p><b>Title:</b> Counting and Place Value</p> <p><b>Big Idea:</b> Trust the Count / Place Value (Numbers to 100)</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>• Develop confidence with number sequences to and from 100 by ones from any starting point. Skip count by twos, fives and tens starting from zero (<a href="#">VCMNA086</a>)</li> <li>• Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a number line (<a href="#">VCMNA087</a>)</li> <li>• Count collections to 100 by partitioning numbers using place value (<a href="#">VCMNA088</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra)</b></p> <ul style="list-style-type: none"> <li>• Investigate and describe number patterns formed by skip counting and patterns with objects (<a href="#">VCMNA093</a>)</li> <li>• Recognise the importance of repetition of a process in solving problems (<a href="#">VCMNA094</a>)</li> </ul> <p><b>Measurement: (Time)</b></p> <ul style="list-style-type: none"> <li>• Tell time to the half-hour (<a href="#">VCMMG096</a>)</li> <li>• Describe duration using months, weeks, days and hours (<a href="#">VCMMG097</a>)</li> </ul> <p><b>Statistics and Probability: (Data)</b></p> <ul style="list-style-type: none"> <li>• Choose simple questions and gather responses (<a href="#">VCMSP101</a>)</li> <li>• Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays (<a href="#">VCMSP102</a>)</li> </ul> <ul style="list-style-type: none"> <li>•</li> </ul> <p><b>Geometry: (Location)</b></p> <ul style="list-style-type: none"> <li>• Give and follow directions to familiar locations (<a href="#">VCMMG099</a>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Numeracy Online Interview</a> (Counting and Place Value)</li> <li>• <b>Pre and Post</b> - Time</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher Chosen assessment</li> </ul> <p><b>Title:</b> Addition and Subtraction</p> <p><b>Big Idea:</b> Explore mental strategies for solving addition and subtraction problems.</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>• Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts (<a href="#">VCMNA089</a>)</li> <li>•</li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra, Money and Financial mathematics)</b></p> <ul style="list-style-type: none"> <li>• Recognise, describe and order Australian coins according to their value (<a href="#">VCMNA092</a>)</li> </ul> <p><b>Measurement: (Length)</b></p> <ul style="list-style-type: none"> <li>• Measure and compare the lengths, masses and capacities of pairs of objects using uniform informal units (<a href="#">VCMMG095</a>)</li> </ul> <p><b>Geometry: (2D Shape)</b></p> <ul style="list-style-type: none"> <li>• Recognise and classify familiar two-dimensional shapes and three-dimensional objects using obvious features (<a href="#">VCMMG098</a>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Numeracy Online Interview</a> (Addition and Subtraction)</li> </ul>	<p><b>Title:</b> Multiplication and Division</p> <p><b>Big Idea:</b> Practical applications for sharing and making groups.</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>• Represent practical situations that model sharing (<a href="#">VCMNA090</a>)</li> <li>•</li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra, Money and Financial mathematics)</b></p> <p><b>Measurement: (Mass)</b></p> <ul style="list-style-type: none"> <li>• Measure and compare the lengths, masses and capacities of pairs of objects using uniform informal units (<a href="#">VCMMG095</a>)</li> </ul> <p><b>Statistics and Probability: (Chance)</b></p> <ul style="list-style-type: none"> <li>• Identify outcomes of familiar events involving chance and describe them using everyday language such as ‘will happen’, ‘won’t happen’ or ‘might happen’ (<a href="#">VCMSP100</a>)</li> </ul> <p><b>Geometry: (3D Shape)</b></p> <ul style="list-style-type: none"> <li>• Recognise and classify familiar two-dimensional shapes and three-dimensional objects using obvious features (<a href="#">VCMMG098</a>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Numeracy Online Interview</a> (Multiplication and Division)</li> </ul>	<p><b>Title:</b> Fractions</p> <p><b>Big Idea:</b> Sharing between two. (Carry over from Term 3 Unit)</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>• Recognise and describe one-half as one of two equal parts of a whole (<a href="#">VCMNA091</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra, Fractions and Decimals)</b></p> <p><b>Measurement: (Capacity)</b></p> <ul style="list-style-type: none"> <li>• Measure and compare the lengths, masses and capacities of pairs of objects using uniform informal units (<a href="#">VCMMG095</a>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>• <b>Pre and post</b> - Fractions</li> </ul>
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**Title:** Counting and Place Value**Big Idea:** Counting and Place Value (Numbers Up to 1000)**Vic Curriculum:**

- Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and ten from any starting point, then moving to other sequences ([VCMNA103](#))
- Recognise, model, represent and order numbers to at least 1000 ([VCMNA104](#))
- Group, partition and rearrange collections up to 1000 in hundreds, tens and ones to facilitate more efficient counting ([VCMNA105](#))

**Developed with Number and Place Value: (Patterns and Algebra)**

- Describe patterns with numbers and identify missing elements ([VCMNA112](#))

**Measurement: (Time and Temperature)**

- Tell time to the quarter-hour, using the language of 'past' and 'to' ([VCMMG117](#))
- Name and order months and seasons ([VCMMG118](#))
- Use a calendar to identify the date and determine the number of days in each month ([VCMMG119](#))

**Statistics and Probability: (Data)**

- Identify a question of interest based on one categorical variable. Gather data relevant to the question ([VCMSP126](#))
- Collect, check and classify data ([VCMSP127](#))
- Create displays of data using lists, table and picture graphs and interpret them ([VCMSP128](#))

**Pre and Post Assessments:**

- [Numeracy Online Interview](#) (Counting and Place Value)
- **Pre and post** - Time

**Title:** Addition and Subtraction**Big Idea:** Become fluent with a range of mental strategies for addition and subtraction.**Vic Curriculum:**

- Explore the connection between addition and subtraction ([VCMNA106](#))
- Solve simple addition and subtraction problems using a range of efficient mental and written strategies ([VCMNA107](#))

**Developed with Number and Place Value: (Patterns and Algebra, Money and Financial)**

- Count and order small collections of Australian coins and notes according to their value ([VCMNA111](#))

**Measurement: (Length)**

- Compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units ([VCMMG115](#))

**Geometry: (2D Shape/ Transformation)**

- Describe and draw two-dimensional shapes, with and without digital technologies ([VCMMG120](#))
- Investigate the effect of one-step slides and flips with and without digital technologies ([VCMMG123](#))
- Identify and describe half and quarter turns ([VCMMG124](#))

**Pre and Post Assessment:**

- [Numeracy Online Interview](#) (Addition and Subtraction)

**Title:** Multiplication and Division**Big Idea:** Counting the number of items in identical groups.**Vic Curriculum:**

- Recognise and represent multiplication as repeated addition, groups and arrays ([VCMNA108](#))
- Recognise and represent division as grouping into equal sets and solve simple problems using these representations ([VCMNA109](#))

**Developed with Number and Place Value: (Patterns and Algebra, Money and Financial)****Measurement: (Mass)**

- Compare masses of objects using balance scales ([VCMMG116](#))

**Statistics and Probability: (Chance)**

- Identify practical activities and everyday events that involve chance. Describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' ([VCMSP125](#))

**Geography: (Location)**

- Interpret simple maps of familiar locations and identify the relative positions of key features ([VCMMG122](#))

**Pre and Post Assessments:**

- [Numeracy Online Interview](#) (Multiplication and Division)

**Title:** Fractions**Big Idea:** Relating the number of parts to the size of the fraction.**Vic Curriculum:**

- Recognise and interpret common uses of halves, quarters and eighths of shapes and collections ([VCMNA110](#))

**Developed with Number and Place Value: (Patterns and Algebra, Money and Financial mathematics)****Measurement: (Area, Capacity)**

- Compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units ([VCMMG115](#))

**Geometry: (2D Shape)**

- Describe and draw two-dimensional shapes, with and without digital technologies ([VCMMG120](#))

**Pre and Post Assessments:**

- **Pre and post** - Fraction

**Title:** Counting and Place Value.

**Big Idea:** Explore the Place Value of numbers to 10 000

**Vic Curriculum:**

- Investigate the conditions required for a number to be odd or even and identify odd and even numbers ([VCMNA129](#))
- Recognise, model, represent and order numbers to at least 10 000 ([VCMNA130](#))
- Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems ([VCMNA131](#))

**Developed with Number and Place Value: (Patterns and Algebra. Money and Financial mathematics)**

**Measurement: (Time, Temperature)**

- Tell time to the minute and investigate the relationship between units of time ([VCMMG141](#))

**Geometry: (Angles, 2D Shapes)**

- Identify angles as measures of turn and compare angle sizes in everyday situations ([VCMMG146](#))
- Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents ([VCMNA137](#))
- Describe, continue, and create number patterns resulting from performing addition or subtraction ([VCMNA138](#))
- Use a function machine and the inverse machine as a model to apply mathematical rules to numbers or shapes ([VCMNA139](#))

**Pre and Post Assessments:**

- [Numeracy Online Interview](#) (Counting and Place Value)
- **Pre and post** - Time

**Title:** Addition and Subtraction

**Big Idea:** Develop mental and written strategies for addition and subtraction

**Vic Curriculum:**

- Recognise and explain the connection between addition and subtraction ([VCMNA132](#))
- Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation ([VCMNA133](#))

**Measurement: (Length)**

- Measure, order and compare objects using familiar metric units of length, area, mass and capacity ([VCMMG140](#))

**Developed with Number and Place Value: (Patterns and Algebra, Money and Financial mathematics)**

- Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents ([VCMNA137](#))
- Describe, continue, and create number patterns resulting from performing addition or subtraction ([VCMNA138](#))
- Use a function machine and the inverse machine as a model to apply mathematical rules to numbers or shapes ([VCMNA139](#))

**Statistics and Probability: (Data)**

- Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording ([VCMSP148](#))
- Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies ([VCMSP149](#))
- Interpret and compare data displays ([VCMSP150](#))

**Geometry: (3D Shape)**

- Make models of three-dimensional objects and describe key features ([VCMMG142](#))

**Title:** Multiplication and Division

**Big Idea:** Use Grouping and Arrays to solve multiplication problems.

**Vic Curriculum:**

- Recall multiplication facts of two, three, five and ten and related division facts ([VCMNA134](#))
- Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies ([VCMNA135](#))

**Developed with Number and Place Value: (Patterns and Algebra, Money and Financial mathematics)**

**Measurement: (Area, Mass)**

- Measure, order and compare objects using familiar metric units of length, area, mass and capacity ([VCMMG140](#))

**Statistics and Probability: (Chance)**

- Conduct chance experiments, identify and describe possible outcomes and recognise variation in results ([VCMSP147](#))

**Geometry: (Location)**

- Create and interpret simple grid maps to show position and pathways ([VCMMG143](#))

**Pre and Post Assessments:**

- [Numeracy Online Interview](#) (Multiplication and Division)

**Title:** Fractions

**Big Idea:** Describe fractions in terms of numerators and denominators.

**Vic Curriculum:**

- Model and represent unit fractions including  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{1}{5}$  and their multiples to a complete whole ([VCMNA136](#))

**Developed with Number and Place Value: (Patterns and Algebra, Money and Financial mathematics)**

**Measurement: (Capacity)**

- Measure, order and compare objects using familiar metric units of length, area, mass and capacity ([VCMMG140](#))

**Geometry: (Transformation)**

- Identify symmetry in the environment ([VCMMG144](#))
- Identify and describe slides and turns found in the natural and built environment ([VCMMG145](#))

**Pre and Post Assessments:**

- **Pre and post** - Fractions

		<p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Numeracy Online Interview</a> (Addition and Subtraction)</li> </ul>		
<p><b>G R A D E 4</b></p>	<p><b>Title:</b> Counting and Place Value</p> <p><b>Big Idea:</b> Explore the Place Value of numbers beyond 10 000</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>• Investigate and use the properties of odd and even numbers (<a href="#">VCMNA151</a>)</li> <li>• Recognise, represent and order numbers to at least tens of thousands (<a href="#">VCMNA152</a>)</li> <li>• Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems (<a href="#">VCMNA153</a>)</li> <li>• Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (<a href="#">VCMNA154</a>)</li> </ul> <p><b>Measurement: (Time, Temperature)</b></p> <ul style="list-style-type: none"> <li>• Convert between units of time (<a href="#">VCMMG167</a>)</li> <li>• Use am and pm notation and solve simple time problems (<a href="#">VCMMG168</a>)</li> <li>• Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (<a href="#">VCMMG165</a>)</li> </ul> <p><b>Geometry: (Angles, 3D Shape)</b></p> <ul style="list-style-type: none"> <li>• Explain and compare the geometric properties of two-dimensional shapes and three-dimensional objects (<a href="#">VCMMG171</a>)</li> <li>• Compare angles and classify them as equal to, greater than or less than a right angle (<a href="#">VCMMG174</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Fractions)</b></p> <ul style="list-style-type: none"> <li>• Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation (<a href="#">VCMNA159</a>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Numeracy Online Interview</a> (Counting and Place Value)</li> </ul>	<p><b>Title:</b> Addition and Subtraction</p> <p><b>Big Idea:</b> Develop mental and written strategies for addition and subtraction</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>• Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems (<a href="#">VCMNA153</a>)</li> </ul> <p><b>Measurement: (Length)</b></p> <ul style="list-style-type: none"> <li>• Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (<a href="#">VCMMG165</a>)</li> </ul> <p><b>Statistics and Probability: (Data)</b></p> <ul style="list-style-type: none"> <li>• Select and trial methods for data collection, including survey questions and recording sheets (<a href="#">VCMSP178</a>)</li> <li>• Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values (<a href="#">VCMSP179</a>)</li> <li>• Evaluate the effectiveness of different displays in illustrating data features including variability (<a href="#">VCMSP180</a>)</li> </ul> <p><b>Geometry: (3D Shape)</b></p> <ul style="list-style-type: none"> <li>• Explain and compare the geometric properties of two-dimensional shapes and three-dimensional objects (<a href="#">VCMMG171</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra, Money and Financial mathematics, Fractions)</b></p> <ul style="list-style-type: none"> <li>• Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies (<a href="#">VCMNA160</a>)</li> <li>• Use equivalent number sentences involving addition and subtraction to find unknown quantities (<a href="#">VCMNA163</a>)</li> </ul>	<p><b>Title:</b> Multiplication and Division</p> <p><b>Big Idea:</b> Multiplicative thinking. Use a variety of known strategies to solve multiplication and division problems</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>• Recall multiplication facts up to <math>10 \times 10</math> and related division facts (<a href="#">VCMNA155</a>)</li> <li>• Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder (<a href="#">VCMNA156</a>)</li> <li>• Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems (<a href="#">VCMNA153</a>)</li> </ul> <p><b>Measurement: (Area, Mass)</b></p> <ul style="list-style-type: none"> <li>• Compare objects using familiar metric units of area and volume (<a href="#">VCMMG166</a>)</li> <li>• Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (<a href="#">VCMMG165</a>)</li> </ul> <p><b>Statistics and Probability: (Chance)</b></p> <ul style="list-style-type: none"> <li>• Describe possible everyday events and order their chances of occurring (<a href="#">VCMSP175</a>)</li> <li>• Identify everyday events where one cannot happen if the other happens (<a href="#">VCMSP176</a>)</li> <li>• Identify events where the chance of one will not be affected by the occurrence of the other (<a href="#">VCMSP177</a>)</li> </ul> <p><b>Geometry: (Location)</b></p> <ul style="list-style-type: none"> <li>• Use simple scales, legends and directions to interpret information contained in basic maps (<a href="#">VCMMG172</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra, Money and Financial mathematics, Fractions)</b></p>	<p><b>Title:</b> Fractions and Decimals</p> <p><b>Big Idea:</b> Multiplicative thinking. Skip count fractions with the same denominator and find equivalence.</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>• Investigate equivalent fractions used in contexts (<a href="#">VCMNA157</a>)</li> <li>• Count by quarters, halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line (<a href="#">VCMNA158</a>)</li> <li>• Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation (<a href="#">VCMNA159</a>)</li> </ul> <p><b>Measurement: (Capacity, Volume)</b></p> <ul style="list-style-type: none"> <li>• Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (<a href="#">VCMMG165</a>)</li> </ul> <p><b>Geometry: (Transformation)</b></p> <ul style="list-style-type: none"> <li>• Create symmetrical patterns, pictures and shapes with and without digital technologies (<a href="#">VCMMG173</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Patterns and Algebra, Money and Financial mathematics, Fractions)</b></p> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>• <b>Pre and post</b> - Fractions</li> </ul>

	<ul style="list-style-type: none"> <li>● <b>Pre and post</b> - Time</li> </ul>	<ul style="list-style-type: none"> <li>● Define a simple class of problems and solve them using an effective algorithm that involves a short sequence of steps and decisions (<a href="#">VCMNA164</a>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>● <a href="#">Numeracy Online Interview</a> (Addition and Subtraction)</li> </ul>	<ul style="list-style-type: none"> <li>● Explore and describe number patterns resulting from performing multiplication (<a href="#">VCMNA161</a>)</li> <li>● Solve word problems by using number sentences involving multiplication or division where there is no remainder (<a href="#">VCMNA162</a>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <p><a href="#">Numeracy Online Interview</a> (Multiplication and Division)</p>	
<b>G R A D E 5</b>	<p><b>Title:</b> Counting and Place Value</p> <p><b>Big Idea:</b> Explore the Place Value of numbers beyond 100 000</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>● Identify and describe factors and multiples of whole numbers and use them to solve problems (<a href="#">VCMNA181</a>)</li> <li>● Recognise, represent and order numbers to at least hundreds of thousands (<a href="#">VCMNA186</a>)</li> </ul> <p><b>Measurement: (Length, Perimeter, Location)</b></p> <ul style="list-style-type: none"> <li>● Choose appropriate units of measurement for length, area, volume, capacity and mass (<a href="#">VCMMG195</a>)</li> <li>● calculate the perimeter and area of rectangles and the volume and capacity of prisms using familiar metric units (<a href="#">VCMMG196</a>)</li> </ul> <p><b>Geometry: (Location)</b></p> <ul style="list-style-type: none"> <li>● Use a grid reference system to describe locations. Describe routes using landmarks and directional language (<a href="#">VCMMG199</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Fractions)</b></p> <ul style="list-style-type: none"> <li>● Recognise that the place value system can be extended beyond hundredths (<a href="#">VCMNA189</a>)</li> <li>● Compare, order and represent decimals (<a href="#">VCMNA190</a>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li>● <b>Pre and post</b> - Place value</li> </ul>	<p><b>Title:</b> Addition and Subtraction</p> <p><b>Big Idea:</b> Develop mental and written strategies for addition and subtraction</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>● Use estimation and rounding to check the reasonableness of answers to calculations (<a href="#">VCMNA182</a>)</li> <li>● Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (<a href="#">VCMNA185</a>)</li> </ul> <p><b>Measurement: (Time)</b></p> <ul style="list-style-type: none"> <li>● Compare 12- and 24-hour time systems and convert between them (<a href="#">VCMMG197</a>)</li> </ul> <p><b>Statistics and Probability: (Chance)</b></p> <ul style="list-style-type: none"> <li>● List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions (<a href="#">VCMSP203</a>)</li> <li>● Recognise that probabilities range from 0 to 1 (<a href="#">VCMSP204</a>)</li> </ul> <p><b>Geometry: (2D Shape, Transformation)</b></p> <ul style="list-style-type: none"> <li>● Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (<a href="#">VCMMG200</a>)</li> <li>● Apply the enlargement transformation to familiar two dimensional shapes and explore the properties of the resulting image compared with the original (<a href="#">VCMMG201</a>)</li> </ul>	<p><b>Title:</b> Multiplication and Division</p> <p><b>Big Idea:</b> Explore mental strategies for Multiplication and Division</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>● Use estimation and rounding to check the reasonableness of answers to calculations (<a href="#">VCMNA182</a>)</li> <li>● Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies (<a href="#">VCMNA183</a>)</li> <li>● Solve problems involving division by a one digit number, including those that result in a remainder (<a href="#">VCMNA184</a>)</li> <li>● Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (<a href="#">VCMNA185</a>)</li> </ul> <p><b>Measurement: (Area, Mass)</b></p> <ul style="list-style-type: none"> <li>● Choose appropriate units of measurement for length, area, volume, capacity and mass (<a href="#">VCMMG195</a>)</li> <li>● Calculate the perimeter and area of rectangles and the volume and capacity of prisms using familiar metric units (<a href="#">VCMMG196</a>)</li> </ul> <p><b>Statistics and Probability: (Data)</b></p> <ul style="list-style-type: none"> <li>● Pose questions and collect categorical or numerical data by observation or survey (<a href="#">VCMSP205</a>)</li> <li>● Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (<a href="#">VCMSP206</a>)</li> </ul>	<p><b>Title:</b> Fractions</p> <p><b>Big Idea:</b> Proportional Reasoning. Compare and order common fractions. Explore equivalent fractions, improper fractions and mixed numerals.</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>● Compare and order common unit fractions and locate and represent them on a number line (<a href="#">VCMNA187</a>)</li> <li>● Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator (<a href="#">VCMNA188</a>)</li> <li>● Recognise that the place value system can be extended beyond hundredths (<a href="#">VCMNA189</a>)</li> <li>● Compare, order and represent decimals (<a href="#">VCMNA190</a>)</li> </ul> <p><b>Measurement: (Volume, Capacity)</b></p> <ul style="list-style-type: none"> <li>● Choose appropriate units of measurement for length, area, volume, capacity and mass (<a href="#">VCMMG195</a>)</li> <li>● Calculate the perimeter and area of rectangles and the volume and capacity of prisms using familiar metric units (<a href="#">VCMMG196</a>)</li> </ul> <p><b>Geometry: (3D Shape)</b></p> <ul style="list-style-type: none"> <li>● Connect three-dimensional objects with their nets and other two-dimensional representations (<a href="#">VCMMG198</a>)</li> </ul> <p><b>Developed with Number and Place Value:</b></p>

		<p><b>Developed with Number and Place Value: (Fractions, Patterns and Algebra, Money and Financial mathematics)</b></p> <ul style="list-style-type: none"> <li>Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction (<a href="#">VCMNA192</a>)</li> <li>Create simple financial plans (<a href="#">VCMNA191</a>)</li> <li>Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator (<a href="#">VCMNA188</a>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li><b>Pre and post</b> - Addition and Subtraction</li> <li><b>Pre and post</b> - Time</li> </ul>	<ul style="list-style-type: none"> <li>Describe and interpret different data sets in context (<a href="#">VCMSP207</a>)</li> </ul> <p><b>Geometry: (2D Shape, Transformation)</b></p> <ul style="list-style-type: none"> <li>Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (<a href="#">VCMMG200</a>)</li> <li>Apply the enlargement transformation to familiar two dimensional shapes and explore the properties of the resulting image compared with the original (<a href="#">VCMMG201</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Fractions, Patterns and Algebra, Money and Financial mathematics)</b></p> <ul style="list-style-type: none"> <li>Create simple financial plans (<a href="#">VCMNA191</a>) (<i>Kidpreneur</i>)</li> </ul> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li><b>Pre and post</b> - Multiplication and Division</li> </ul>	<p><b>(Fractions, Patterns and Algebra, Money and Financial mathematics)</b></p> <p><b>Pre and Post Assessments:</b></p> <ul style="list-style-type: none"> <li><b>Pre and post</b> - Fractions and Decimals</li> </ul>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">GRADES 6</p>	<p><b>Title:</b> Counting Place Value</p> <p><b>Big Idea:</b> Explore the Place Value of numbers beyond 100 000</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>Identify and describe properties of prime, composite, square and triangular numbers (<a href="#">VCMNA208</a>)</li> <li>Investigate everyday situations that use integers. Locate and represent these numbers on a number line (<a href="#">VCMNA210</a>)</li> </ul> <p><b>Measurement: (Temperature, Length)</b></p> <ul style="list-style-type: none"> <li>Connect decimal representations to the metric system (<a href="#">VCMMG222</a>)</li> <li>Convert between common metric units of length, mass and capacity (<a href="#">VCMMG223</a>)</li> <li>Solve problems involving the comparison of lengths and areas using appropriate units (<a href="#">VCMMG224</a>)</li> </ul> <p><b>Geometry (Angles)</b></p> <ul style="list-style-type: none"> <li>Investigate, with and without digital</li> </ul>	<p><b>Title:</b> Addition and Subtraction</p> <p><b>Big Idea:</b> Explore mental and written strategies for addition and subtraction</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers and make estimates for these computations (<a href="#">VCMNA209</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Fractions, Patterns and Algebra, Money and Financial)</b></p> <ul style="list-style-type: none"> <li>Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence (<a href="#">VCMNA219</a>)</li> <li>Explore the use of brackets and order of operations to write number sentences (<a href="#">VCMNA220</a>)</li> </ul>	<p><b>Title:</b> Multiplication and Division</p> <p><b>Big Idea:</b> Explore mental strategies for Multiplication and Division</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers and make estimates for these computations (<a href="#">VCMNA209</a>)</li> </ul> <p><b>Developed with Number and Place Value: (Fractions, Patterns and Algebra, Money and Financial)</b></p> <p><b>Measurement: (Area/Volume and Capacity)</b></p> <ul style="list-style-type: none"> <li>Solve problems involving the comparison of lengths and areas using appropriate units (<a href="#">VCMMG224</a>)</li> <li>Connect volume and capacity and their units of measurement (<a href="#">VCMMG225</a>)</li> </ul>	<p><b>Title:</b> Fractions and Decimals</p> <p><b>Big Idea:</b> Proportional Reasoning. Compare and order common fractions. Explore equivalent fractions, improper fractions and mixed numerals.</p> <p><b>Vic Curriculum:</b></p> <ul style="list-style-type: none"> <li>Compare fractions with related denominators and locate and represent them on a number line (<a href="#">VCMNA211</a>)</li> <li>Solve problems involving addition and subtraction of fractions with the same or related denominators (<a href="#">VCMNA212</a>)</li> <li>Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies (<a href="#">VCMNA213</a>)</li> <li>Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the</li> </ul>

technologies, angles on a straight line, angles at a point and vertically opposite angles. Use results to find unknown angles (VCMMG231)

**Developed with Number and Place Value: (Fractions, Patterns and Algebra, Money and Financial)**

- Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence (VCMNA219)
- Compare fractions with related denominators and locate and represent them on a number line (VCMNA211)

Pre and Post Assessments:

Place Value Assessment

- Design algorithms involving branching and iteration to solve specific classes of mathematical problems (VCMNA221)
- Solve problems involving addition and subtraction of fractions with the same or related denominators (VCMNA212)
- Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies (VCMNA213)

**Measurement: (Time) 2D shapes, Transformation.**

**Interpret and use timetables (VCMMG226)  
Measure, calculate and compare elapsed time (VCMMG227)**

**Statistics and Probability (Chance)**

- Describe probabilities using fractions, decimals and percentages (VCMSP232)
- Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies (VCMSP233)
- Compare observed frequencies across experiments with expected frequencies (VCMSP234)

**Geometry (2D Shapes/ Transformation)**

- Investigate the effect of combinations of transformations on simple and composite shapes, including creating tessellations, with and without the use of digital technologies (VCMMG229)
- Introduce the Cartesian coordinate system using all four quadrants (VCMMG230)

**Statistics and Probability (Data)**

- Construct, interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (VCMSP235)
- Interpret secondary data presented in digital media and elsewhere (VCMSP236)
- Pose and refine questions to collect categorical or numerical data by observation or survey (VCMSP237)

**Geometry (3D shape)**

- Construct simple prisms and pyramids (VCMMG228)

Pre and Post Assessments:

Multiplication and Division Assessment

reasonableness of answers (VCMNA214)

- Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the results are terminating decimals, with and without digital technologies (VCMNA215)
- Multiply and divide decimals by powers of 10 (VCMNA216)
- Make connections between equivalent fractions, decimals and percentages (VCMNA217)

**Developed with Number and Place Value: (Fractions, Patterns and Algebra, Money and Financial mathematics)**

- Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies (VCMNA218)
- Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence (VCMNA219)
- Explore the use of brackets and order of operations to write number sentences (VCMNA220)
- Design algorithms involving branching and iteration to solve specific classes of mathematical problems (VCMNA221)

**Measurement (Mass)**

- Connect decimal representations to the metric system (VCMMG222)



Pre and Post Assessments:  
Addition and Subtraction Test.  
Time Assessment

- Convert between common metric units of length, mass and capacity (VCMMG223)

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**Geometry(Location)**

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- Introduce the Cartesian coordinate system using all four quadrants (VCMMG230)

Pre and Post Assessments:  
Fractions Assessment