

| Subtopic   | Year Level   |                                   |  |   |
|--|--|-----------------------------------|--|---|
|  | 4  | 5                                 | 6  | 7   |
| <b>Number and Algebra</b>  |  |                                   |  |   |
| <b>Number and place value</b>  |  |                                   |  |   |
| <b>Representation and ordering</b><br>Year 4<br><ul style="list-style-type: none"> <li>Recognise, represent and order numbers to at least tens of thousands (ACMNA072)</li> </ul> Year 6<br><ul style="list-style-type: none"> <li>Investigate everyday situations that use integers. Locate and represent these numbers on a number line (ACMNA124)</li> </ul>  | 1A: Place value<br>1B: Ten thousands<br>1C: Ordering numbers   |                                   | 1A: The Hindu-Arabic number system<br>1E: Number lines<br><br>10A: Opposites<br>10B: Combined effects<br>10C: The number line<br>10D: Addition and subtraction with negative numbers |   |
| <b>Partitioning numbers and place value</b><br>Year 4<br><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 (ACMNA073)</li> </ul>  | 1A: Place value<br>1E: Column addition<br>1F: Addition problems<br>1H: Column subtraction<br>1I: Subtraction with exchanging<br>1J: Subtraction problems<br><br>2E: Multiplying by 10<br>2F: Multiplying larger numbers<br><br>3C: Dividing by 10<br>3G: Dividing larger numbers |                                   |  |   |
| <b>Addition and subtraction</b><br>Year 7<br><ul style="list-style-type: none"> <li>Compare, order, add and subtract integers (ACMNA280)</li> </ul>  |  |                                   |  | 1B: Number strategies<br>1C: Rounding<br>1D: Estimation<br>1E: Operating with numbers<br>1H: Order of operations<br><br>4B: The number line<br>4C: Adding and subtracting negatives<br>4F: Combined operations<br>4G: Using your calculator |
| <b>Multiplication and division</b><br>Year 4<br><ul style="list-style-type: none"> <li>Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (ACMNA074)</li> <li>Recall multiplication facts up to <math>10 \times 10</math> and related division facts (ACMNA075)</li> <li>Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder (ACMNA076)</li> </ul> Year 5<br><ul style="list-style-type: none"> <li>Identify and describe factors and multiples of whole numbers and use them to solve problems (ACMNA098)</li> </ul> | 2A: Multiplication tables<br>2D: Doubling<br>2E: Multiplying by 10<br>2F: Multiplying by large numbers<br><br>3A: Sharing<br>3C: Dividing by 10<br>3D: Halving<br>3E: Halving larger number<br>3F: Division using multiplication<br>3G: Dividing larger numbers                  | 2A: Multiplication<br>2C: Factors |  |   |
| <b>Odd and even numbers</b><br>Year 4<br><ul style="list-style-type: none"> <li>Investigate and use the properties of odd and even numbers (ACMNA071)</li> </ul>   | 3D: Halving  |                                   |  |   |

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| <b>Special types of numbers and index notation</b><br>Year 6 <ul style="list-style-type: none"> <li>Identify and describe properties of prime, composite, square and triangular numbers (ACMNA122)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Investigate index notation and represent whole numbers as products of powers of prime numbers (ACMNA149)</li> <li>Investigate and use square roots of perfect square numbers (ACMNA150)</li> </ul>   |   |   | 3C: Zero and one<br>3F: Square numbers<br>3G: Triangular numbers<br>3H: Divisibility<br>3I: Factors of natural numbers<br>3J: Prime and composite numbers  | 1F: Index notation<br>1G: Square numbers<br><br>3C: Prime and composite numbers<br>3D: Highest common factor<br>3E: Multiples of natural numbers<br>3F: Square roots of whole numbers |
| <b>Solving problems using multiplication and division</b><br>Year 5 <ul style="list-style-type: none"> <li>Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies (ACMNA100)</li> <li>Solve problems involving division by a one digit number, including those that result in a remainder (ACMNA101)</li> </ul>                                   |   | 2A: Multiplication<br>2B: Division  |  |   |
| <b>Solving problems using more complex operations</b><br>Year 6 <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 (ACMNA123)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Apply the associative, commutative and distributive laws to aid mental and written computation (ACMNA151)</li> </ul> |   |   | 1B: Adding and subtracting whole numbers<br>1C: Multiplying and dividing whole numbers<br>1D: Two step problem solving<br>1F: Rounding numbers<br><br>3A: Addition and subtraction<br>3B: Multiplication and division<br>3E: Order of operations | 1B: Number strategies<br>1E: Operating with numbers<br>1H: Order of operations  |
| <b>General problem solving strategies</b><br>Year 5 <ul style="list-style-type: none"> <li>Use estimation and rounding to check the reasonableness of answers to calculations (ACMNA099)</li> <li>Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291)</li> </ul>   |   | 1B: Rounding numbers<br>1C: Addition<br>1D: Subtraction<br><br>2A: Multiplication<br>2B: Division<br><br>6J: Using a calculator<br><br>9H: Using a calculator |  |   |
| <b>Fractions and decimals / Real numbers</b>   |   |   |  |   |
| <b>Representing fractions and connections to whole numbers</b><br>Year 4 <ul style="list-style-type: none"> <li>Count by quarters halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line (ACMNA078)</li> </ul>  | 4A: Representing fractions<br>4B: Fractions which add up to 1 whole<br>4C: Fractions on a number line<br>4E: Improper fractions and mixed numbers |   |  |   |

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| <b>Comparing fractions and equivalence</b><br>Year 4 <ul style="list-style-type: none"> <li>Investigate equivalent fractions used in contexts (ACMNA077)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Compare and order common unit fractions and locate and represent them on a number line (ACMNA102)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Compare fractions with related denominators and locate and represent them on a number line (ACMNA125)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Compare fractions using equivalence. Locate and represent positive and negative fractions and mixed numbers on a number line (ACMNA152)</li> </ul>                 | 4D: Equal fractions   | 5B: Fractions on a number line<br>5D: Ordering fractions<br>5F: Proper and improper fractions | 5A: Fractions<br>5C: Proper and improper fractions<br>5E: Placing fractions on a number line<br>5F: Equal fractions<br>5G: Comparing fractions | 5D: Placing fractions on a number line<br>5E: Equal fractions and simplifying<br>5F: Comparing fractions  |
| <b>Fractions of a quantity</b><br>Year 6 <ul style="list-style-type: none"> <li>Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies (ACMNA127)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Express one quantity as a fraction of another, with and without the use of digital technologies (ACMNA155)</li> </ul>   |   |   | 5B: Fractions as division<br>5D: Fractions of quantities   | 5E: Equal fractions and simplifying<br>5K: Evaluating fractions using a calculator<br>5L: Problem solving   |
| <b>Extension of place value</b><br>Year 4 <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 (ACMNA079)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Recognise that the place value system can be extended beyond hundredths (ACMNA104)</li> </ul>   | 4F: Working with hundredths<br><br>5A: Introducing decimals<br>5C: Hundredths | 6A: Constructing decimal numbers<br>6G: Dividing decimals by 10                               |  |   |
| <b>Operations with fractions</b><br>Year 5 <ul style="list-style-type: none"> <li>Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator (ACMNA103)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Solve problems involving addition and subtraction of fractions with the same or related denominators (ACMNA126)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Solve problems involving addition and subtraction of fractions, including those with unrelated denominators (ACMNA153)</li> <li>Multiply and divide fractions and decimals using efficient written strategies and digital technologies (ACMNA154)</li> </ul> |   | 5E: Adding and subtracting fractions  | 5H: Adding and subtracting fractions   | 5G: Adding and subtracting fractions<br>5H: Multiplying fractions<br>5J: Dividing fractions<br>5K: Evaluating fractions using a calculator<br>5L: Problem solving |
| <b>Introduction to decimals</b><br>Year 5 <ul style="list-style-type: none"> <li>Compare, order and represent decimals (ACMNA105)</li> </ul>   |   | 6A: Constructing decimal numbers<br>6B: Decimals on a number line<br>6C: Ordering decimals    |  |   |

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| <b>Operations with decimals</b><br>Year 6 <ul style="list-style-type: none"> <li>Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers (ACMNA128)</li> <li>Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the results are terminating decimals, with and without digital technologies (ACMNA129)</li> <li>Multiply and divide decimals by powers of 10 (ACMNA130)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Multiply and divide fractions and decimals using efficient written strategies and digital technologies (ACMNA154)</li> </ul> |  |   | 6C: Rounding decimal numbers<br>6E: Adding and subtracting decimals<br>6F: Multiplying by powers of 10<br>6G: Dividing by powers of 10<br>6H: Multiplying decimals by whole numbers<br>6I: Dividing decimals by whole numbers | 6F: Multiplying by powers of 10<br>6G: Dividing by powers of 10<br>6H: Multiplying decimal numbers<br>6I: Dividing decimal numbers   |
| <b>Percentages</b><br>Year 6 <ul style="list-style-type: none"> <li>Make connections between equivalent fractions, decimals and percentages (ACMNA131)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Connect fractions, decimals and percentages and carry out simple conversions (ACMNA157)</li> <li>Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies. (ACMNA158)</li> </ul>  |  |   | 6A: Constructing decimal numbers<br>6B: Decimals on a number line<br>6D: Converting between decimals and fractions<br>9B: Converting between percentages and fractions<br>9C: Converting between percentages and decimals     | 6B: Converting decimals to fractions<br>8A: Understanding percentages<br>8B: Interchanging number forms<br>8C: One quantity as a percentage of another<br>8D: Finding a percentage of a quantity |
| <b>Ratios and proportion</b><br>Year 7 <ul style="list-style-type: none"> <li>Recognise and solve problems involving simple ratios (ACMNA173)</li> </ul>   |  |   |   | 13A: Ratio<br>13B: Writing ratios as fractions<br>13C: Equal ratios<br>13D: Problem solving using ratios<br>13E: Rates<br>13F: Comparing prices  |
| <b>Rational and irrational numbers</b><br>Year 7 <ul style="list-style-type: none"> <li>Round decimals to a specified number of decimal places (ACMNA156)</li> </ul>   |  |   |   | 6C: Rounding decimal numbers   |
| <b>Money and financial mathematics</b>   |  |   |   |  |
| <b>Basic calculations with money</b><br>Year 4 <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 (ACMNA080)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Create simple financial plans (ACMNA106)</li> </ul>   | 13A: Notes and coins<br>13B: Finding the total<br>13C: Giving change | 9G: Mixed money problems<br>9I: Budgeting |   |  |
| <b>Further calculations with money</b><br>Year 6 <ul style="list-style-type: none"> <li>Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies (ACMNA132)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Investigate and calculate 'best buys', with and without digital technologies (ACMNA174)</li> </ul>   |  |   | 9D: One quantity as a percentage of another<br>9E: Finding percentages of quantities  | 13F: Comparing prices  |

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| <b>Patterns and algebra</b>   |   |  |  |  |
| <b>Number sentences</b><br>Year 4 <ul style="list-style-type: none"> <li>Solve word problems by using number sentences involving multiplication or division where there is no remainder (ACMNA082)</li> <li>Find unknown quantities in number sentences involving addition and subtraction and identify equivalent number sentences involving addition and subtraction (ACMNA083)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Find unknown quantities in number sentences involving multiplication and division and identify equivalent number sentences involving multiplication and division (ACMNA121)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Explore the use of brackets and order of operations to write number sentences (ACMNA134)</li> </ul> | 1D: Mental addition<br>1F: Addition problems<br>1G: Mental subtraction<br>1J: Subtraction problems<br><br>2A: Multiplication tables<br>2B: Multiples<br>2C: Factors<br>2D: Doubling<br>2E: Multiplying by 10<br>2F: Multiplying larger numbers<br><br>3C: Dividing by 10<br>3D: Halving<br>3E: Halving large numbers<br>3F: Division using multiplication<br>3G: Dividing by larger numbers | 1C: Addition<br>1D: Subtraction<br><br>2A: Multiplication<br>2B: Division  | 3E: Order of operations  |  |
| <b>Number sequences</b><br>Year 4 <ul style="list-style-type: none"> <li>Explore and describe number patterns resulting from performing multiplication (ACMNA081)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction (ACMNA107)</li> </ul> Year 6 <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 (ACMNA133)</li> </ul>   | 2B: Multiples<br>2E: Multiplying by 10<br><br>3D: Halving   | 12A: Number sequences<br>12B: Finding a rule for a sequence<br>12C: Sequences involving fractions<br>12D: Sequences involving decimals | 11A: Number sequences<br>11B: Sequences involving fractions<br>11C: Sequences involving decimals<br>11D: Patterns<br>11E: Using a formula to describe patterns |  |
| <b>Introduction to algebra</b><br>Year 7 <ul style="list-style-type: none"> <li>Introduce the concept of variables as a way of representing numbers using letters (ACMNA175)</li> <li>Create algebraic expressions and evaluate them by substituting a given value for each variable (ACMNA176)</li> <li>Extend and apply the laws and properties of arithmetic to algebraic terms and expressions (ACMNA177)</li> </ul>  |   |  |  | 7A: Building expressions<br>7B: Key words in algebra<br>7C: Simplifying expressions<br>7D: Algebraic products<br>7E: Evaluating algebraic expressions<br>7F: Formulae<br>7G: Practical problems using formulae |
| <b>Linear and non-linear relationships</b>  |   |  |  |  |
| <b>The Cartesian plane</b><br>Year 7 <ul style="list-style-type: none"> <li>Given coordinates, plot points on the Cartesian plane, and find coordinates for a given point (ACMNA178)</li> </ul>   |   |  |  | 11B: Number grids<br>11C: Positive and negative coordinates<br>11D: Plotting points from a table of values   |
| <b>Solving single linear equations</b><br>Year 7 <ul style="list-style-type: none"> <li>Solve simple linear equations (ACMNA179)</li> </ul>   |   |  |  | 9B: Solving simple equations<br>9C: Maintaining balance<br>9D: Inverse operations<br>9E: Algebraic flowcharts<br>9F: Solving equations<br>9G: Equations with a repeated variable<br>9I: Problem solving        |

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| <b>Graphing and interpreting relationships</b><br>Year 7 <ul style="list-style-type: none"> <li>Investigate, interpret and analyse graphs from authentic data (ACMNA180)</li> </ul>   |   |  |  | 14A: Properties of line graphs<br>14B: Estimating from line graphs<br>14C: Travel graphs |
| <b>Measurement and geometry</b>   |   |  |  |  |
| <b>Units of measurement</b>   |   |  |  |  |
| <b>Units of physical measurement</b><br>Year 4 <ul style="list-style-type: none"> <li>Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (ACMMG084)</li> <li>Compare objects using familiar metric units of area and volume (ACMMG290)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Connect decimal representations to the metric system (ACMMG135)</li> <li>Convert between common metric units of length, mass and capacity (ACMMG136)</li> </ul> | 6A: Centimetres and millimetres<br>6B: Estimation<br>6C: Metres<br>6D: Temperature<br>6E: Capacity<br><br>8A: Area<br>8B: Estimating area<br>8C: Mass<br>8D: Volume | 8A: Length<br>8C: Area<br><br>10A: Volume<br>10B: Capacity<br>10D: Mass        | 8A: Length<br>8F: Capacity<br>8G: Mass                                 |  |
| <b>Calculating quantities of two-dimensional spatial measure</b><br>Year 5 <ul style="list-style-type: none"> <li>Calculate perimeter and area of rectangles using familiar metric units (ACMMG109)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Solve problems involving the comparison of lengths and areas using appropriate units (ACMMG137)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Establish the formulas for areas of rectangles, triangles and parallelograms, and use these in problem-solving (ACMMG159)</li> </ul>  |   | 8B: Perimeter<br>8C: Area  | 8A: Length<br>8B: Perimeter<br>8C: Area<br>8D: The area of a rectangle | 12C: Area<br>12D: The area of a rectangle<br>12E: Other areas                            |
| <b>Calculating quantities of three-dimensional spatial measure</b><br>Year 6 <ul style="list-style-type: none"> <li>Connect volume and capacity and their units of measurement (ACMMG138)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Calculate volumes of rectangular prisms (ACMMG160)</li> </ul>  |   |  | 8E: Volume<br>8F: Capacity   | 12F: Volume  |
| <b>Language of time</b><br>Year 4 <ul style="list-style-type: none"> <li>Use 'am' and 'pm' notation and solve simple time problems (ACMMG086)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Compare 12- and 24-hour time systems and convert between them (ACMMG110)</li> </ul>  | 7A: Telling the time<br>7B: AM and PM<br>7C: Time calculations<br>7F: Timetables  | 7A: Analogue time<br>7B: Digital time<br>7C: Units of time<br>7E: 24-Hour time |  |  |
| <b>Units of time</b><br>Year 4 <ul style="list-style-type: none"> <li>Convert between units of time (ACMMG085)</li> </ul>   | 7D: Units of time<br>7E: Converting units   |  |  |  |

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| <b>Applications of time</b><br>Year 6 <ul style="list-style-type: none"> <li>Interpret and use timetables (ACMMG139)</li> </ul>  |  |  | 7E: Timetables  |   |
| <b>Shape</b>   |  |  |   |   |
| <b>Comparing shapes</b><br>Year 4 <ul style="list-style-type: none"> <li>Compare the areas of regular and irregular shapes by informal means (ACMMG087)</li> <li>Compare and describe two dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies (ACMMG088)</li> </ul>  | 8A: Area<br>8B: Estimating area<br><br>9C: Properties of shapes<br>9D: Composite shapes<br>9E: Describing composite shapes |  |   |   |
| <b>Drawing and representing shapes</b><br>Year 5 <ul style="list-style-type: none"> <li>Connect three-dimensional objects with their nets and other two-dimensional representations (ACMMG111)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Construct simple prisms and pyramids (ACMMG140)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Draw different views of prisms and solids formed from combinations of prisms (ACMMG161)</li> </ul>  |  | 4F: Solids<br>4G: Drawing solids<br>4H: Constructing solids  | 4D: Solids<br>4E: Constructing Solids   | 18A: Drawing rectangular solids<br>18B: Views of solids |
| <b>Location and transformation</b>   |  |  |   |   |
| <b>Using maps</b><br>Year 4 <ul style="list-style-type: none"> <li>Use simple scales, legends and directions to interpret information contained in basic maps (ACMMG090)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Use a grid reference system to describe locations. Describe routes using landmarks and directional language (ACMMG113)</li> </ul>  | 14A: Describing position<br>14B: Legends<br>14C: Scale   | 13A: Position<br>13B: Map references<br>13C: Finding points<br>13D: Compass points                           |   |   |
| <b>Introduction to transformations</b><br>Year 4 <ul style="list-style-type: none"> <li>Create symmetrical patterns, pictures and shapes with and without digital technologies (ACMMG091)</li> </ul>   | 10A: Line symmetry<br>10B: Patterns  |  |   |   |
| <b>Transformations of two-dimensional shapes</b><br>Year 5 <ul style="list-style-type: none"> <li>Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (ACMMG114)</li> <li>Apply the enlargement transformation to familiar two dimensional shapes and explore the properties of the resulting image compared with the original (ACMMG115)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Investigate combinations of translations, reflections and rotations, with and without the use of digital technologies (ACMMG142)</li> </ul> |  | 14A: Reflections<br>14B: Line symmetry<br>14C: Translations<br>14D: Rotations<br>14E: Enlarging and reducing | 15A: Translations<br>15B: Reflections<br>15C: Rotations<br>15D: Combinations of transformations |   |

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| <b>Transformations on the Cartesian plane</b><br>Year 6 <ul style="list-style-type: none"> <li>Introduce the Cartesian coordinate system using all four quadrants (ACMMG143)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Describe translations, reflections in an axis and rotations of multiples of <math>90^\circ</math> on the Cartesian plane using coordinates. Identify line and rotational symmetries (ACMMG181)</li> </ul>  |  |   | 13C: Coordinates<br>13D: Positive and negative coordinates<br>13E: Scales<br>13F: Direction | 17A: Translations<br>17B: Reflections and line symmetry<br>17C: Rotations and rotational symmetry<br>17D: Combinations of transformations |
| <b>Geometric reasoning</b>   |  |   |   |   |
| <b>Introduction to angles</b><br>Year 4 <ul style="list-style-type: none"> <li>Compare angles and classify them as equal to, greater than, or less than, a right angle (ACMMG089)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Estimate, measure and compare angles using degrees. Construct angles using a protractor (ACMMG112)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Investigate, with and without digital technologies, angles on a straight line, angles at a point and vertically opposite angles. Use results to find unknown angles (ACMMG141)</li> </ul> | 9A: Right angles<br>9B: Other angles   | 3A: Angles<br>3B: Measuring angles<br>3C: Constructing angles | 2B: Angles<br>2C: Angles at a point or on a line<br>2D: Vertically opposite angles          |   |
| <b>Parallel lines</b><br>Year 7 <ul style="list-style-type: none"> <li>Identify corresponding, alternate and co-interior angles when two straight lines are crossed by a transversal (ACMMG163)</li> <li>Investigate conditions for two lines to be parallel and solve simple numerical problems using reasoning (ACMMG164)</li> </ul>   |  |   |   | 2A: Points and lines<br>2C: Angle properties<br>2D: Angle pairs<br>2E: Parallel lines<br>2F: Geometric construction                       |
| <b>Properties of triangles and quadrilaterals</b><br>Year 7 <ul style="list-style-type: none"> <li>Classify triangles according to their side and angle properties and describe quadrilaterals (ACMMG165)</li> <li>Demonstrate that the angle sum of a triangle is <math>180^\circ</math> and use this to find the angle sum of a quadrilateral (ACMMG166)</li> </ul>  |  |   |   | 10B: Triangles<br>10C: Angles of a triangle<br>10D: Isosceles triangles<br>10E: Quadrilaterals<br>10F: Angles of a quadrilateral          |
| <b>Statistics and probability</b>  |  |   |   |   |
| <b>Chance</b>  |  |   |   |   |
| <b>Describing probability</b><br>Year 4 <ul style="list-style-type: none"> <li>Describe possible everyday events and order their chances of occurring (ACMSP092)</li> <li>Identify everyday events where one cannot happen if the other happens (ACMSP093)</li> <li>Identify events where the chance of one will not be affected by the occurrence of the other (ACMSP094)</li> </ul>  | 11A: Describing probability<br>11B: 50-50 chance<br>11C: Predicting outcomes |   |   |   |

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|---|--|---|---|---|
|   | 4  | 5   | 6   | 7   |
| <b>Numerical representations of probability</b><br>Year 5 <ul style="list-style-type: none"> <li>List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions (ACMSP116)</li> <li>Recognise that probabilities range from 0 to 1 (ACMSP117)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Describe probabilities using fractions, decimals and percentages (ACMSP144)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Assign probabilities to the outcomes of events and determine probabilities for events (ACMSP168)</li> </ul>  |  | 11A: Describing probability<br>11B: Possible outcomes<br>11C: Calculating probabilities | 12B: Assigning numbers to probabilities<br>12D: Calculating probabilities | 15B: Assigning numbers to probabilities<br>15D: Theoretical probability |
| <b>Simple chance experiments</b><br>Year 6 <ul style="list-style-type: none"> <li>Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies (ACMSP145)</li> <li>Compare observed frequencies across experiments with expected frequencies (ACMSP146)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Construct sample spaces for single-step experiments with equally likely outcomes (ACMSP167)</li> </ul>  |  |   | 12C: Possible outcomes<br>12D: Calculating probabilities                  | 15A: Describing probability<br>15C: Sample space                        |
| <b>Data representation and interpretation</b>   |  |   |   |   |
| <b>Data collection</b><br>Year 4 <ul style="list-style-type: none"> <li>Select and trial methods for data collection, including survey questions and recording sheets (ACMSP095)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Pose questions and collect categorical or numerical data by observation or survey (ACMSP118)</li> </ul>   | 12A: Collecting and recording data         | 15C: Collecting categorical data<br>15D: Numerical data                                 |   |   |
| <b>Analysis of data collection methods</b><br>Year 7 <ul style="list-style-type: none"> <li>Identify and investigate issues involving numerical data collected from primary and secondary sources (ACMSP169)</li> </ul>   |  |   |   | 16A: Data collection<br>16C: Numerical data                             |
| <b>Data representation</b><br>Year 4 <ul style="list-style-type: none"> <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 (ACMSP096)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)</li> </ul> Year 7 <ul style="list-style-type: none"> <li>Construct and compare a range of data displays including stem-and-leaf plots and dot plots (ACMSP170)</li> </ul> | 12B: Displaying data<br>12C: Column graphs | 15B: Displaying categorical data<br>15D: Numerical data                                 |   | 16B: Categorical data<br>16C: Numerical data                            |

| Subtopic  | Year Level                                 |  |  |  |
|---|--|--|--|--|
|   | 4  | 5  | 6  | 7  |
| <b>Interpretation of data displays</b><br>Year 4 <ul style="list-style-type: none"> <li>Evaluate the effectiveness of different displays in illustrating data features including variability (ACMSP097)</li> </ul> Year 5 <ul style="list-style-type: none"> <li>Describe and interpret different data sets in context (ACMSP120)</li> </ul> Year 6 <ul style="list-style-type: none"> <li>Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)</li> <li>Interpret secondary data presented in digital media and elsewhere (ACMSP148)</li> </ul> | 12B: Displaying data<br>12C: Column graphs | 15A: Categorical data<br>15B: Displaying categorical data<br>15D: Numerical data | 14A: Categorical data<br>14B: Graphs of categorical data<br>14C: Comparing categorical data<br>14D: Pictographs<br>14E: Numerical data |  |
| <b>Measures of location and spread</b><br>Year 7 <ul style="list-style-type: none"> <li>Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data (ACMSP171)</li> <li>Describe and interpret data displays using median, mean and range (ACMSP172)</li> </ul>  |  |  |  | 16B: Categorical data<br>16C: Numerical data<br>16D: Measuring the centre and spread |