



First to Seventh Year of School

Nelson Numeracy Assessment Kit

correlation to

NSW Mathematics K–6 Syllabus Outcomes

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Nelson Numeracy Assessment Kit

First Year of School correlation to NSW Mathematics K–6 Syllabus Outcomes Early Stage 1

NAK Strand: NUMBER & PATTERNS

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Early Stage 1
Section A — COUNTING SET OBJECTS	<i>Number</i> Whole Numbers Syllabus p. 41	NES1.1 <ul style="list-style-type: none"> Counts forward to at least 10. Demonstrates one-to-one correspondence when counting to 10. Represents numbers to at least 10 using numerals, words, symbols, objects.
Section B — PATTERN RECOGNITION	<i>Number</i> Whole Numbers Syllabus p. 41	NES1.1 <ul style="list-style-type: none"> Represents numbers to at least 10 using numerals, words, symbols, objects. Names instantly the number represented by an arrangement of dots.
Section C — IDENTIFYING & CONTINUING PATTERNS	<i>Patterns and Algebra</i> Syllabus p. 73	PAES1.1 <ul style="list-style-type: none"> Recognises, copies and continues a repeating pattern made using sounds or actions. Continues a repeating pattern made from shapes, objects or pictures.
Section D — BASIC CONCEPT LANGUAGE	<i>Space and Geometry</i> Position (Syllabus p. 134)	SGES1.3 <ul style="list-style-type: none"> Follows a simple direction to position an object. Describes position in relation to other people or objects.
Section E — COUNTING & COMPARING	<i>Number</i> Whole Numbers (Syllabus p. 41)	NES1.1 <ul style="list-style-type: none"> Counts forward to at least 10. Compares and orders numbers or groups of objects.
Section F — 1–1 CORRESPONDENCE	<i>Number</i> Whole Numbers (Syllabus p. 41)	NES1.1 <ul style="list-style-type: none"> Counts forward to at least 10. Demonstrates one-to-one correspondence when counting to 10.
Section G — NUMBER RECOGNITION	<i>Number</i> Whole Numbers (Syllabus p. 41)	NES1.1 <ul style="list-style-type: none"> Represents numbers to at least 10 using numerals, words, symbols, objects. Reads and records numbers up to 10 including 0.
Section H — WRITING NUMBERS	<i>Number</i> Whole Numbers (Syllabus p. 41)	NES1.1 <ul style="list-style-type: none"> Represents numbers to at least 10 using numerals, words, symbols, objects. Reads and records numbers up to 10 including 0.
Section I — ORDINAL NUMBER	<i>Number</i> Whole Numbers (Syllabus p. 41)	NES1.1 <ul style="list-style-type: none"> Compares and orders numbers or groups of objects. Orders a set of numbers up to 10 from smallest to largest.
Section J — COUNTING SEQUENCES	<i>Number</i> Whole Numbers (Syllabus p. 41)	NES1.1 <ul style="list-style-type: none"> Counts forwards to 10 from a given number. Counts backwards from a given number, in the range 0 – 10.
Section K — NUMBERS BEFORE/AFTER	<i>Number</i> Whole Numbers (Syllabus p. 41)	NES1.1 <ul style="list-style-type: none"> Counts forwards to 10 from a given number. Counts backwards from a given number, in the range 0 – 10. Names the number before and after a given number.
Section L — CONSERVATION OF NUMBER	<i>Number</i> Whole Numbers (Syllabus p. 41)	NES1.1 <ul style="list-style-type: none"> Represents numbers to at least 10 using numerals, words, symbols, objects.
Section M — SIMPLE ADDITION (no symbols)	<i>Number</i> Addition and Subtraction (Syllabus p. 46)	NES1.2 <ul style="list-style-type: none"> Combines two groups to model addition. Joins two groups of objects together and states the number altogether. Uses concrete materials to model different combinations to 10.
Section N — MENTAL ADDITION	<i>Number</i> Whole Numbers & Addition and Subtraction (Syllabus p. 41, 46)	NES1.1, NES1.2 <ul style="list-style-type: none"> Makes groups of up to 10 objects. Combines two groups to model addition.
Section O — SIMPLE SUBTRACTION (no symbols)	<i>Number</i> Whole Numbers & Addition and Subtraction (Syllabus pp. 41, 46)	NES1.1, NES1.2 <ul style="list-style-type: none"> Counts backwards from a given number, in the range 0 – 10. Takes part of a group away and states the number of objects remaining.
Section P — MENTAL SUBTRACTION	<i>Number</i> Whole Numbers & Addition and Subtraction (Syllabus pp. 41, 46)	NES1.1, NES1.2 <ul style="list-style-type: none"> Counts backwards from a given number, in the range 0 – 10. Takes part of a group away and states the number of objects remaining.

NAK Strand: MEASUREMENT

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Early Stage 1
Section A — IDENTIFYING ATTRIBUTES	<i>Measurement</i> Length, Volume & Capacity, Mass (Syllabus pp. 92, 102, 108)	MES1.1, MES1.3, MES1.4 <ul style="list-style-type: none"> • Uses everyday and comparative language to describe length, mass and capacity eg, shortest, tallest, the same, lightest, heaviest, most, least. • Compares the lengths of two objects by placing the objects side-by-side and aligning the ends. • Sorts objects into heavy and light groups. • Recognises when a container is full, empty and about half full. • Explains that one container 'will hold more', 'will hold less'. Or 'will hold about the same' as another container.
Section B — ESTIMATE, MEASURE & COMPARE (length, mass, capacity)	<i>Measurement</i> Length, Volume & Capacity, Mass (Syllabus pp. 92, 102, 108)	MES1.1, MES1.3, MES1.4 <ul style="list-style-type: none"> • Uses everyday and comparative language to describe length, mass and capacity eg, shortest, tallest, the same, lightest, heaviest, most, least. • Compares the lengths of two objects by placing the objects side-by-side and aligning the ends. • Sorts objects into heavy and light groups. • Recognises when a container is full, empty and about half full. • Explains that one container 'will hold more', 'will hold less'. Or 'will hold about the same' as another container.
Section C — INFORMAL MEASUREMENT	<i>Measurement</i> Length, Volume & Capacity, Mass (Syllabus pp. 92, 102, 108)	MES1.1, MES1.3, MES1.4 <ul style="list-style-type: none"> • Uses everyday and comparative language to describe length and capacity eg, shortest, tallest, the same, most, least. • Measures the length of an object by placing informal units end-to-end without gaps or overlays. • Fills and empties a variety of containers using different materials. • Recognises when a container is full, empty and about half full. • Compares and orders capacities by packing / pouring materials from one container to another.
Section D — CONCEPT OF TIME/CLOCKS	<i>Measurement</i> Time (Syllabus p. 112)	MES1.5 <ul style="list-style-type: none"> • Describes 'daytime' and 'night-time'. • Sorts picture cards into events that happen in the morning, afternoon or night-time.

NAK Strand: SPACE

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Early Stage 1
Section A — RECOGNISE SHAPES & OBJECTS (2D)	<i>Space and Geometry</i> Two-dimensional space (Syllabus p. 124)	SGES1.2 <ul style="list-style-type: none"> • Identifies and names a circle, square, triangle and rectangle presented in different orientations and in the environment.
Section B — DRAWING 2D SHAPES	<i>Space and Geometry</i> Two-dimensional space (Syllabus p. 124)	SGES1.2 <ul style="list-style-type: none"> • Identifies and names a circle, square, triangle and rectangle presented in different orientations and in the environment. • Makes shapes using a variety of materials.
Section C — RECOGNISE SHAPES & OBJECTS (3D)	<i>Space and Geometry</i> Three-dimensional Space (Syllabus p. 118)	SGES1.1 <ul style="list-style-type: none"> • Describes 3D objects and their features using everyday language.
Section D — PATTERN & MOVEMENT	<i>Patterns and Algebra</i> (Syllabus p. 73) <i>Space and Geometry</i> Three-dimensional Space (Syllabus p. 118)	PAES1.1, SGES1.1 <ul style="list-style-type: none"> • Continues a repeating pattern made from shapes, objects or pictures. • Manipulates a two-dimensional shape and describes its features using everyday language. • Turns two-dimensional shapes to fit into a given space.
Section E — USING SIMPLE LOCATION/ POSITION LANGUAGE	<i>Space and Geometry</i> Position (Syllabus p. 134)	SGES1.3 <ul style="list-style-type: none"> • Follows a simple direction to position an object. • Describes position in relation to other people or objects.
Section F — LOCATION (following a pathway)	<i>Space and Geometry</i> Position (Syllabus p. 134)	SGES1.3 <ul style="list-style-type: none"> • Follows a simple direction to position an object. • Describes position in relation to other people or objects.
Section G — BUILDING A MODEL	<i>Space and Geometry</i> Three-dimensional Space (Syllabus p. 118)	SGES1.1 <ul style="list-style-type: none"> • Makes models from a variety of materials and describes them in everyday language.

NAK Strand: CHANCE & DATA

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Early Stage 1
Section A — CHANCE	<i>Number</i> Chance (Syllabus p. 68)	NS1.5 (Stage 1) <ul style="list-style-type: none">• Uses the language of chance to describe everyday events.
Section B — POSE QUESTIONS & COLLECT INFORMATION; REPRESENT DATA (make pictographs)	<i>Data</i> (Syllabus p. 85)	DES1.1 <ul style="list-style-type: none">• Sorts objects into groups according to a characteristic.• Organises a group of similar objects into rows or columns.• Compares groups by counting.• Uses a picture of an object to represent the object in a data display.• Organizes actual objects or pictures of the objects into a data display.• Describes information presented in a data display.• Interprets information presented in a data display to answer questions.

Nelson Numeracy Assessment Kit

Second Year of School correlation to NSW Mathematics K–6 Syllabus Outcomes Stage 1

NAK Strand: NUMBER & PATTERNS

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 1
Section A — COUNTING COLLECTIONS OF OBJECTS (1–1 correspondence)	<i>Number</i> Whole Numbers (Syllabus p. 42, 43)	NS1.1 <ul style="list-style-type: none"> Counts forwards or backwards from a given two-digit number. Reads, writes and says two- and three-digit numbers.
Section B — NUMBERS AT A GLANCE	<i>Number</i> Whole Numbers (Syllabus pp. 42, 43)	NS1.1 <ul style="list-style-type: none"> Names instantly the number represented by an arrangement of dots. Reads, writes and says two- and three-digit numbers.
Section C — ORDINAL NUMBER	<i>Number</i> Whole Numbers (Syllabus pp. 42, 43)	NS1.1 <ul style="list-style-type: none"> Counts forwards or backwards from a given two-digit number. Orders a set of two- or three-digit numbers.
Section D — WHOLE NUMBERS (read, order & compare)	<i>Number</i> Whole Numbers (Syllabus pp. 42, 43)	NS1.1 <ul style="list-style-type: none"> Counts forwards or backwards from a given two-digit number. Names the number before and after a given two- or three-digit number. Reads, writes and says two- and three-digit numbers. Orders a set of two- or three-digit numbers. Uses the terms 'more than' and 'less than' when comparing numbers.
Section E — PLACE VALUE	<i>Number</i> Whole Numbers (Syllabus pp. 42, 43)	NS1.1 <ul style="list-style-type: none"> Reads, writes and says two- and three-digit numbers. Orders a set of two- or three-digit numbers. Represent two- and three-digit numbers using materials. States the place value of digits in a three-digit number.
Section F — NUMBER PATTERNS	<i>Number</i> Whole Numbers (Syllabus pp. 42, 43) <i>Patterns and Algebra</i> (Syllabus p. 74)	NS1.1, PAS1.1 <ul style="list-style-type: none"> Counts forwards or backwards by twos, fives or tens. Recognizes odd and even numbers by grouping objects into two rows. Identifies patterns when counting by twos, fives or tens. Supplies the next number in an increasing or decreasing pattern and describes how it was determined.
Section G — WHOLE NUMBERS (computation/operations: addition, subtraction, informal multiplication)	<i>Number</i> Addition and Subtraction (Syllabus pp. 47, 48) Multiplication and Division (Syllabus p. 53)	NS1.2, NS1.3 <ul style="list-style-type: none"> Records number sentences using the symbols +, - and = Uses two or more different strategies to solve an addition or subtraction problem. (Counting on/back, doubles, facts, bridging, place value) Recalls addition and subtraction facts for numbers to 20. Explains how an answer to an addition or subtraction problem was obtained. Counts by ones, twos, fives and tens. Describes collections of objects as 'rows of' or 'groups of'. Uses counting strategies to find the total number of objects. eg skip / rhythmic counting.
Section H — MENTAL STRATEGIES (whole numbers up to 10)	<i>Number</i> Addition and Subtraction (Syllabus pp. 47, 48)	NS1.2 <ul style="list-style-type: none"> Uses two or more different strategies to solve an addition problem. (Counting on, doubles, facts, bridging, place value) Recalls addition facts for numbers to 20
Section I — FRACTIONS	<i>Number</i> Fractions and Decimals (Syllabus p. 61)	NS1.4 <ul style="list-style-type: none"> Models and describes a half or a quarter of an object or a collection of objects. Models and describes the dividing of a collection of objects into halves or quarters. Uses fraction language in everyday contexts. Uses fraction notation for half $\frac{1}{2}$ and quarter $\frac{1}{4}$.
Section J — PROBLEM SOLVING (addition)	<i>Number</i> Whole Numbers (Syllabus pp. 42, 43) Addition and Subtraction (Syllabus pp. 47, 48)	NS1.1, NS1.2 <ul style="list-style-type: none"> Records number sentences using the symbols + and = Creates simple addition stories and picture problems. Uses two or more different strategies to solve an addition problem. (Counting on, doubles, facts, bridging, place value, ten frames) Recalls addition facts for numbers to 20. Explains how an answer to an addition problem was obtained. Uses the face value of notes and coins to sort, order and count money. Uses the symbols for dollars (\$) and cents (c). Performs simple calculations with money including finding change and rounding to the nearest 5c.

NAK Strand: MEASUREMENT

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 1
Section A — COMMON MEASUREMENT LANGUAGE	<i>Measurement</i> Length, Volume & Capacity, Mass (Syllabus pp. 92, 102, 108)	MES1.1, MES1.3, MES1.4 <ul style="list-style-type: none"> Uses everyday and comparative language to describe length, mass and capacity eg, shortest, tallest, the same, lightest, heaviest, most, least.
Section B — ESTIMATE, MEASURE & COMPARE (length, mass, capacity)	<i>Measurement</i> Length, Volume & Capacity, Mass and Capacity (Syllabus pp. 93, 109, 103)	MS1.1, MS1.4, MS1.3 <ul style="list-style-type: none"> Measures the length of an object by placing informal units end-to-end without gaps or overlaps. Compares and orders the mass of three or more objects using informal units. Recognizes that two containers of different shape may hold the same amount of material. Estimates and measures the capacity of a container using informal units. Orders containers according to their capacity.
Section C — INFORMAL MEASUREMENT	<i>Measurement</i> Length, Area, Volume and Capacity (Syllabus pp. 93, 97, 103)	MS1.1, MS1.2, MS1.3 <ul style="list-style-type: none"> Measures the length of an object by placing informal units end-to-end without gaps or overlaps. Estimates and measures the capacity of a container using informal units. Compares and orders two or more areas using informal units.
Section D — CONCEPT OF TIME/CLOCKS	<i>Measurement</i> Time (Syllabus p. 113)	MS1.5 <ul style="list-style-type: none"> Names and orders the months of the year. Recalls the number of days that there are in each month. Matches the months of the year to the seasons. Reads o'clock time on analog and digital clocks (Early Stage 1 – revised)

NAK Strand: SPACE

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 1
Section A — IDENTIFY, DESCRIBE, COMPARE & DRAW 2D SHAPES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 125)	SGS1.2 <ul style="list-style-type: none"> Names 2D shapes presented in different orientations. Uses drawing and painting to represent 2D shapes.
Section B — IDENTIFY, DESCRIBE & COMPARE 3D SHAPES	<i>Space and Geometry</i> Three-dimensional Space (Syllabus p. 119)	SGS1.1 <ul style="list-style-type: none"> Describes cones, cubes, cylinders, spheres and prisms. Identifies and names cones, cubes, cylinders, spheres and prisms from a collection of everyday objects and in the environment.
Section C — LINES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 125)	SGS1.2 <ul style="list-style-type: none"> Names 2D shapes presented in different orientations.
Section D — PATTERN & MOVEMENT	<i>Patterns and Algebra</i> (Syllabus p. 73) <i>Space and Geometry</i> Three-dimensional Space (Syllabus p. 118)	PAES1.1, SGES1.1 <ul style="list-style-type: none"> Continues a repeating pattern made from shapes, objects or pictures. Manipulates a two-dimensional shape and describes its features using everyday language. Turns two-dimensional shapes to fit into a given space Creates a repeating pattern using shapes, objects or pictures.
Section E — USING LOCATION/POSITION LANGUAGE	<i>Space and Geometry</i> Position (Syllabus p. 135)	SGS1.3 <ul style="list-style-type: none"> Follows oral instructions to position objects in models and in drawings. Describes the position of an object in a model, photograph or drawing. Uses 'left' or 'right' to describe the position of objects in relation to themselves.
Section F — LOCATION (find, follow & describe a pathway)	<i>Space and Geometry</i> Position (Syllabus p. 135)	SGS1.3 <ul style="list-style-type: none"> Follows oral instructions to position objects in models and in drawings. Describes the position of an object in a model, photograph or drawing. Describes a path from one location to another.

NAK Strand: CHANCE & DATA

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 1
Section A — RECOGNISE & DESCRIBE CHANCE EVENTS	<i>Number</i> Chance (Syllabus p. 68)	NS1.5 <ul style="list-style-type: none"> Uses the language of chance. Describes the element of chance in familiar activities. Describes familiar events as being possible or impossible. Compares two familiar events and explains which is more likely to happen.
Section B — POSE QUESTIONS & COLLECT INFORMATION; REPRESENT DATA (make pictographs)	<i>Data</i> (Syllabus p. 86)	DS1.1 <ul style="list-style-type: none"> Poses a question that can be answered by gathering and displaying data. Uses concrete materials, tally marks or symbols to keep track of data. Interprets information presented in a given picture graph or column graph.

Nelson Numeracy Assessment Kit

Third Year of School correlation to NSW Mathematics K–6 Syllabus Outcomes Stage 1

NAK Strand: NUMBER & PATTERNS

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 1
Section A — WHOLE NUMBERS (read, order & compare)	<i>Number</i> Whole Numbers (Syllabus pp. 42, 43)	NS1.1 <ul style="list-style-type: none"> Counts forwards or backwards from a given two-digit number. Names the number before and after a given two- or three-digit number. Reads, writes and says two- and three-digit numbers. Orders a set of two- or three-digit numbers.
Section B — WHOLE NUMBERS (place value)	<i>Number</i> Whole Numbers (Syllabus pp. 42, 43)	NS1.1 <ul style="list-style-type: none"> Reads, writes and says three-digit numbers. Represent two- and three-digit numbers using materials. States the place value of digits in a three-digit number. Makes the largest or smallest number given any three digits.
Section C — PATTERNS	<i>Patterns and Algebra</i> (Syllabus p. 74)	PAS1.1 <ul style="list-style-type: none"> Identifies patterns when counting forwards or backwards by twos, fives or tens. Supplies the next number in an increasing or decreasing pattern and describes how it was determined. Creates and describes simple number patterns that increase or decrease. Determines a missing number in a number pattern and describes how it was determined.
Section D — WHOLE NUMBERS (computation/operations: addition, subtraction, multiplication, division)	<i>Number</i> Addition and Subtraction (Syllabus pp. 47, 48) Multiplication and Division (Syllabus p. 53)	NS1.2, NS1.3 <ul style="list-style-type: none"> Records number sentences using the symbols +, - and = Uses two or more different strategies to solve an addition or subtraction problem. (Counting on/back, doubles, facts, bridging, place value, ten frames) Recalls addition and subtraction facts for numbers to 20. Explains how an answer to an addition or subtraction problem was obtained. Uses counting strategies to find the total number of objects, eg skip/rhythmic counting. Recognises and names the symbols x and =. Shares a collection of objects into equal groups to model division. Models division as repeated subtraction.
Section E — MENTAL STRATEGIES (with whole numbers up to 20 — addition)	<i>Number</i> Addition and Subtraction (Syllabus pp. 47, 48)	NS1.2 <ul style="list-style-type: none"> Uses two or more different strategies to solve an addition problem. (Counting on/back, doubles, facts, bridging, place value, ten frames, split strategy, jump strategy) Explains how an answer to an addition problem was obtained. Recalls addition facts for numbers to 20.
Section F — FRACTIONS	<i>Number</i> Fractions and Decimals (Syllabus p. 61)	NS1.4 <ul style="list-style-type: none"> Models and describes a half or a quarter of an object or a collection of objects. Uses fraction language in everyday contexts. Uses fraction notation for half $\frac{1}{2}$ and quarter $\frac{1}{4}$.
Section G — PROBLEM SOLVING: addition, subtraction, multiplication, equal addition or multiplication, division, money problems)	<i>Number</i> Whole Numbers (Syllabus pp. 42, 43) Addition and Subtraction (Syllabus pp. 47, 48) Multiplication and Division (Syllabus p. 53)	NS1.1, NS1.2, NS1.3 <ul style="list-style-type: none"> Records number sentences using the symbols +, - and = Creates simple addition and subtraction stories and picture problems. Uses two or more different strategies to solve an addition or subtraction problem. (Counting on/back, doubles, facts, bridging, place value, ten frames) Recalls addition and subtraction facts for numbers to 20. Explains how an answer to an addition or subtraction problem was obtained. Describes collections of objects as 'rows of' or 'groups of'. Uses an array to model multiplication problems. Uses counting strategies to find the total number of objects, eg skip/rhythmic counting. Uses the face value of notes and coins to sort, order and count money. Performs simple calculations with money including finding change and rounding to the nearest 5c.

NAK Strand: MEASUREMENT

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 1
Section A — COMMON MEASUREMENT LANGUAGE	<i>Measurement</i> Length (Syllabus p. 93) Mass (Syllabus p. 109) Volume and Capacity (Syllabus p. 103)	MS1.1, MS1.4, MS1.3 <ul style="list-style-type: none"> Measures the length of an object by placing informal units end-to-end without gaps or overlaps. Counts units to compare and order length of two or more objects. Compares and orders the mass of three or more objects using informal units. Recognizes that two containers of different shape may hold the same amount of material. Orders containers according to their capacity.
Section B — INFORMAL & FORMAL MEASUREMENT	<i>Measurement</i> Length (Syllabus p. 93) Area (Syllabus p. 97) Volume and Capacity (Syllabus p. 103) Mass (Syllabus p. 109)	MS1.1, MS1.3, MS1.2, MS1.4 <ul style="list-style-type: none"> Measures the length of an object by placing informal units end-to-end without gaps or overlaps. Counts units to compare and order length of two or more objects. Uses the abbreviation for metre (m). Classifies the lengths of objects as being more than, less than or about the same as a metre. Measures area by placing identical informal units in rows or columns without gaps or overlaps. Estimates the number of informal units needed to measure an area. Compares and orders two or more areas using informal units. Chooses appropriate informal units to measure area. Recognises that two containers of different shape may hold the same amount of material. Orders containers according to their capacity. Selects from a range of containers those that have a capacity of more than, less than or about a litre. (Stage 2) Identifies objects that have a mass more than, less than or about the same as a kilogram. (Stage 2)
Section C — CONCEPT OF TIME/CLOCKS	<i>Measurement</i> Time (Syllabus p. 113)	MS1.5 <ul style="list-style-type: none"> Reads o'clock time on analog and digital clocks (Early Stage 1 – revised) Reads half hour time on analog and digital clocks. Associates everyday events with particular hour or half-hour times. Names and orders the months of the year. Recalls the number of days that there are in each month. Matches the months of the year to the seasons.

NAK Strand: SPACE

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 1
Section A — IDENTIFY, DESCRIBE, COMPARE & DRAW 2D SHAPES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 125)	SGS1.2 <ul style="list-style-type: none"> Identifies and sorts 2D and 3D shapes by a given attribute. Uses drawings or paintings to represent 2D shapes. Makes as many different shapes as possible by combining two shapes that are the same.
Section B — IDENTIFY, DESCRIBE & COMPARE 3D SHAPES	<i>Space and Geometry</i> Three-dimensional Space (Syllabus p. 119)	SGS1.1 <ul style="list-style-type: none"> Describes cones, cubes, cylinders, spheres and prisms. Uses the terms 'faces', 'edges' and 'corners' to describe 3D objects. Makes models of 3D shapes. (Stage 2) Identifies and sorts 2D and 3D shapes by a given attribute.
Section C — LINES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 125)	SGS1.2 <ul style="list-style-type: none"> Names 2D shapes presented in different orientations.
Section D — USING LOCATION/POSITION LANGUAGE	<i>Space and Geometry</i> Position (Syllabus p. 135)	SGS1.3 <ul style="list-style-type: none"> Makes a simple model of a familiar place and describes the position of objects. Uses 'left' or 'right' to describe the position of objects in relation to themselves. Follows oral instructions to position objects in models and in drawings. Describes the position of an object in a model, photograph or drawing.
Section E — LOCATION (find, follow & describe a pathway)	<i>Space and Geometry</i> Position (Syllabus p. 135)	SGS1.3 <ul style="list-style-type: none"> Describes a path from one location to another.
Section F — READ SIMPLE MAPS	<i>Space and Geometry</i> Position (Syllabus pp. 135, 136)	SGS1.3, SG2.3 (Stage 2) <ul style="list-style-type: none"> Describes the position of an object in a model, photograph or drawing. Describes the location of an object using more than one descriptor. (Stage 2) Uses simple coordinates to create a picture. (Stage 2)

NAK Strand: CHANCE & DATA

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 1
Section A — RECOGNISE & DESCRIBE CHANCE EVENTS	<i>Number</i> Chance (Syllabus pp. 68, 69)	NS1.5 NS2.5 (Stage 2) <ul style="list-style-type: none"> Uses the language of chance. Describes the element of chance in familiar activities. Compares familiar events and describes them as being equally likely, more likely or less likely to occur. (Stage 2) Predicts possible outcomes in a simple chance experiment. (Stage 2)
Section B — COMPARE & INTERPRET INFORMATION FROM GRAPHS	<i>Data</i> (Syllabus p. 86)	DS1.1 <ul style="list-style-type: none"> Interprets information presented in a given picture graph or column graph.
Section C — COLLECT, ORGANISE & INTERPRET INFORMATION; REPRESENT DATA (make graphs)	<i>Data</i> (Syllabus p.86)	DS1.1 <ul style="list-style-type: none"> Poses a question that can be answered by gathering and displaying data. Uses concrete materials, tally marks or symbols to keep track of data. Displays data using symbols or objects to represent data. Uses a baseline and equal spacing when representing data in a display. Displays data using a column graph or a picture graph. Interprets information presented in a given picture graph or column graph.

Nelson Numeracy Assessment Kit

Fourth Year of School correlation to NSW Mathematics K–6 Syllabus Outcomes Stage 2

NAK Strand: NUMBER & PATTERNS

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 2
Section A — WHOLE NUMBERS (read, order & compare)	<i>Number</i> Whole Numbers (Syllabus p. 44)	NS2.1 <ul style="list-style-type: none"> Counts forwards or backwards from a given three-digit number. Names the number before and after a given two- or three-digit number. Reads, writes and says three- and four-digit numbers. Places a set of three- and four-digit numbers in ascending or descending order. Makes the largest and smallest number given any three or four digits. Counts forwards or backwards from any four-digit number by tens or hundreds.
Section B — WHOLE NUMBERS (place value)	<i>Number</i> Whole Numbers (Syllabus p. 44)	NS2.1 <ul style="list-style-type: none"> Reads, writes and says three- and four-digit numbers. States the place value of digits in a four-digit number. Makes the largest and smallest number given any three or four digits.
Section C — PATTERNS	<i>Number</i> Whole Numbers (Syllabus p. 44) <i>Patterns and Algebra</i> (Syllabus p. 74)	NS2.1, PAS1.1 <ul style="list-style-type: none"> Counts forwards and backwards by tens or hundreds on and off the decade. Identifies patterns when counting forwards or backwards by a given number. Supplies the next number in an increasing or decreasing pattern and describes how it was determined. Creates and describes simple number patterns that increase or decrease. Determines a missing number in a number pattern and describes how it was determined.
Section D — WHOLE NUMBERS (computation/operations: addition, subtraction, multiplication, division, mathematical laws)	<i>Number</i> Addition and Subtraction (Syllabus pp. 49, 50) Multiplication and Division (Syllabus pp. 54, 55) <i>Patterns and Algebra</i> (Syllabus p. 75)	NS2.2, NS2.3, PAS2.1 <ul style="list-style-type: none"> Explains and records methods for adding and subtracting. Uses a split strategy for addition and subtraction. Uses an empty number line and jump strategies to represent solutions to addition and subtraction problems involving three- and four-digit numbers. Adds / Subtracts two numbers, with and without trading, using concrete materials. Uses the formal written algorithm to solve addition and subtraction problems. Uses counting strategies to find the total number of objects eg rhythmic counting, repeated addition, doubling (Stage 1) Uses mental strategies to recall multiplication facts to 10 x 10. Describes and records methods used to solve a multiplication fact. Identifies multiples and factors for a given number. Uses mental strategies to multiply a one-digit number by a multiple of ten. Uses multiplication facts to work out division facts. Uses mental strategies to divide a two-digit number by a one-digit number. Describes and records methods used to solve a division problem. Explains and records remainders to division problems. Describes multiplication patterns and applies the commutative property eg $4 \times 6 = 6 \times 4$ Applies the associative property of addition and multiplication to aid mental computation eg $2 + 3 + 8 = 2 + 8 + 3$, $2 \times 3 \times 5 = 2 \times 5 \times 3$
Section E — MENTAL STRATEGIES (multiplication 1 to 5, 10 & 11 facts)	<i>Number</i> Multiplication and Division (Syllabus pp. 54, 55)	NS2.3 <ul style="list-style-type: none"> Uses counting strategies to find the total number of objects eg rhythmic counting, repeated addition, doubling. (Stage 1) Uses mental strategies to recall multiplication facts to 10 x 10. Describes and records methods used to solve a multiplication fact.
Section F — MENTAL STRATEGIES (operations with whole numbers)	<i>Number</i> Addition and Subtraction (Syllabus pp.49, 50) Multiplication and Division (Syllabus pp. 54, 55)	NS2.2, NS2.3 <ul style="list-style-type: none"> Uses a range of mental and written strategies to solve addition, subtraction, multiplication and division problems eg counting on/back, split/jump strategy, doubles, facts, skip counting, place value, calculators.
Section G — FRACTIONS	<i>Number</i> Fractions and Decimals (Syllabus pp. 62, 63)	NS2.4 <ul style="list-style-type: none"> Models halves, quarters, thirds of an object. Compares and orders fractions with the same denominator. Interprets the denominator as the number of equal parts a whole has been divided into. Interprets the numerator as the number of equal fractional parts. Compare unit fractions by referring to the denominator or diagrams.
Section H — PROBLEM SOLVING	<i>Number</i> Addition and Subtraction (Syllabus pp. 49, 50) Multiplication and Division (Syllabus pp. 54, 55)	NS2.2, NS2.3 <ul style="list-style-type: none"> Uses a range of mental and written strategies to solve addition, subtraction, multiplication and division problems eg counting on/back, split/jump strategy, doubles, facts, skip counting, place value, calculators. Describes and records methods used to solve an addition, subtraction, multiplication or division problem. Applies the associative and commutative property of addition and multiplication to aid mental computation.

NAK Strand: MEASUREMENT

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 2
Section A — ESTIMATE, MEASURE & COMPARE MEASUREMENTS: length, perimeter, area, volume, capacity, mass, converting measurements	<i>Measurement</i> Length (Syllabus p. 94) Area (Syllabus p. 98) Volume and Capacity (Syllabus p. 104, 105) Mass (Syllabus p. 110)	MS2.1, MS2.2, MS2.3, MS2.4 <ul style="list-style-type: none"> Estimates, measures and compares the lengths of objects in metres, centimetres and / or millimetres. Uses the term 'perimeter' to describe total distance around a shape. Estimates and measures the perimeter of two-dimensional shapes. Reads and interprets calibrations on measuring devices eg ruler, measuring tape. Measures area by placing identical informal units in rows or columns without gaps or overlaps. Estimates the number of informal units needed to measure an area. Estimates, measures and orders the volume of objects. Selects from a range of containers those that have a capacity of more than, less than or about one litre. Compares and orders the mass of three or more objects using informal units. Identifies objects that have a mass more than, less than or about the same as a kilogram.
Section B — CONCEPT OF TIME/CLOCKS	<i>Measurement</i> Time (Syllabus p. 114)	MS2.5 <ul style="list-style-type: none"> Reads time using the terms 'quarter past' and 'quarter to'. Relates analog notation to digital notation. Reads analog and digital clocks to the minute. Converts between units of time.

NAK Strand: SPACE

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 2
Section A — IDENTIFY, DESCRIBE & COMPARE 2D SHAPES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus pp. 126, 127)	SGS2.2a,b <ul style="list-style-type: none"> Identifies pentagons, octagons and parallelograms presented in different orientations. Groups two-dimensional shapes using multiple attributes. Describes features of special groups of quadrilaterals.
Section B — IDENTIFY, DESCRIBE & COMPARE 3D SHAPES	<i>Space and Geometry</i> Three-dimensional Space (Syllabus p. 120)	SGS2.1 <ul style="list-style-type: none"> Uses the terms 'faces', 'edges', 'corners' to describe 3D shapes. (Stage 1) Describes the features of prisms, pyramids, cylinders, cones and spheres. Identifies, names groups of 3D shapes as prisms, pyramids, cylinders, cones and spheres.
Section C — LINES & ANGLES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 126, 127)	SGS2.2a,b <ul style="list-style-type: none"> Identifies and names parallel, vertical and horizontal lines in pictures, shapes and the environment. Identifies and names perpendicular lines.
Section D — USE LOCATION/POSITION LANGUAGE & READ SIMPLE MAPS	<i>Space and Geometry</i> Position (Syllabus p. 136)	SGS2.3 <ul style="list-style-type: none"> Follows oral instructions to position objects in models and in drawings. Describes the location of an object using more than one descriptor. Uses simple coordinates to create a picture.

NAK Strand: CHANCE & DATA

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 2
Section A — CHANCE	<i>Number</i> Chance (Syllabus p. 69)	NS2.5 <ul style="list-style-type: none"> Uses the language of chance. Predicts possible outcomes in a simple chance experiment. Conducts simple experiments using coins, dice or spinners and records the results.
Section B — COMPARE & INTERPRET INFORMATION FROM GRAPHS	<i>Data</i> (Syllabus p. 87)	DS2.1 <ul style="list-style-type: none"> Interprets information presented in a given picture graph or column graph.
Section C — PRESENT, INTERPRET & SUMMARISE DATA; REPRESENT DATA (make graphs)	<i>Data</i> (Syllabus p. 87)	DS2.1 <ul style="list-style-type: none"> Poses a suitable question that can be answered using a survey. Constructs a column graph or a picture graph on grid paper using one-to-one correspondence. Marks equal spaces on each axis, labels axes and names a column or picture graph. Interprets information presented in a given picture graph or column graph.

Nelson Numeracy Assessment Kit

Fifth Year of School correlation to NSW Mathematics K–6 Syllabus Outcomes Stage 2

NAK Strand: NUMBER & PATTERNS

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 2
Section A — WHOLE NUMBERS (read, order & compare)	<i>Number</i> Whole Numbers (Syllabus p. 44)	NS2.1 <ul style="list-style-type: none"> • Reads, writes and says three- and four-digit numbers. • States the place value of digits in a four-digit number. • Makes the largest and smallest number given any three or four digits. • Records three- and four- digit numbers using expanded notation. • Rounds numbers to the nearest ten, hundred or thousand when estimating.
Section B — WHOLE NUMBERS (place value)	<i>Number</i> Whole Numbers (Syllabus p. 44)	NS2.1 <ul style="list-style-type: none"> • Reads, writes and says three- and four-digit numbers. • States the place value of digits in a four-digit number. • Makes the largest and smallest number given any three or four digits. • Records three- and four- digit numbers using expanded notation.
Section C — PATTERNS	<i>Patterns and Algebra</i> (Syllabus p. 75)	PAS2.1 <ul style="list-style-type: none"> • Identifies and records number patterns when counting by threes, fours, fives, sevens, eights or nines. • Creates a variety of number patterns using whole numbers, fractions or decimals. • Uses the equals sign to record equivalent number relationships. • Recognizes and describes patterns using multiplication facts to 10×10.
Section D — WHOLE NUMBERS (computation/operations: addition, subtraction, multiplication, division, mathematical laws)	<i>Number</i> Addition and Subtraction (Syllabus pp. 49, 50) Multiplication and Division (Syllabus pp. 54, 55) <i>Patterns and Algebra</i> (Syllabus p. 75)	NS2.2, NS2.3, PAS2.1 <ul style="list-style-type: none"> • Explains and records methods for adding and subtracting. • Uses a split strategy for addition and subtraction. • Uses an empty number line and jump strategies to represent solutions to addition and subtraction problems involving three- and four-digit numbers. • Adds/Subtracts two numbers, with and without trading, using concrete materials. • Uses the formal written algorithm to solve addition and subtraction problems. • Uses counting strategies to find the total number of objects eg rhythmic counting, repeated addition, doubling. (Stage 1) • Uses mental strategies to recall multiplication facts to 10×10. • Describes and records methods used to solve a multiplication fact. • Identifies multiples and factors for a given number. • Uses mental strategies to multiply a one-digit number by a multiple of ten. • Uses multiplication facts to work out division facts. • Uses mental strategies to divide a two-digit number by a one-digit number. • Describes and records methods used to solve a division problem. • Explains and records remainders to division problems. • Describes multiplication patterns and applies the commutative property eg $4 \times 6 = 6 \times 4$ • Applies the associative property of addition and multiplication to aid mental computation eg $2 + 3 + 8 = 2 + 8 + 3$, $2 \times 3 \times 5 = 2 \times 5 \times 3$
Section E — MENTAL STRATEGIES (multiplication 1 to 12 facts/ division 1 to 5, 10 & 11 facts)	<i>Number</i> Multiplication and Division (Syllabus pp. 54, 55)	NS2.3 <ul style="list-style-type: none"> • Uses mental strategies to multiply a one-digit number by a multiple of ten. • Uses mental strategies to multiply a two-digit number by a one-digit number. • Uses multiplication facts to work out division facts. • Uses mental strategies to divide a two-digit number by a one-digit number.
Section F — MENTAL STRATEGIES (operations with whole numbers)	<i>Number</i> Whole Numbers (Syllabus p. 44) Addition and Subtraction (Syllabus pp. 49, 50) Multiplication and Division (Syllabus pp. 54, 55) Fractions and Decimals (Syllabus pp. 62, 63)	NS2.1, NS2.2, NS2.3, NS2.4 <ul style="list-style-type: none"> • Reads, writes and says three- and four- digit numbers. • Uses a range of mental and written strategies to solve addition, subtraction, multiplication and division problems eg counting on/back, split/jump strategy, doubles, facts, skip counting, place value, calculators. • Describes and records methods used to solve an addition, subtraction, multiplication or division problem. • Applies the associative and commutative property of addition and multiplication to aid mental computation.
Section G — DECIMAL NUMBERS (read, order & compare)	<i>Number</i> Fractions and Decimals (Syllabus pp. 62, 63)	NS2.4 <ul style="list-style-type: none"> • Expresses whole numbers as decimals. • Interprets decimal notation for tenths or hundredths. • Orders decimals with the same number of decimal places. • Rounds a number with one or two decimal places to the nearest whole number.
Section H — DECIMAL NUMBERS (place value)	<i>Number</i> Fractions and Decimals (Syllabus pp. 62, 63)	NS2.4 <ul style="list-style-type: none"> • Interprets decimal notation for tenths or hundredths.
Section I — DECIMAL NUMBERS (computation/operations: addition of decimals, subtraction of decimals)	<i>Number</i> Fractions and Decimals (Syllabus pp. 62, 63)	NS2.4 <ul style="list-style-type: none"> • Adds or subtracts two decimal numbers with two decimal places.
Section J — FRACTIONS (read, order & compare)	<i>Number</i> Fractions and Decimals (Syllabus pp. 62, 63)	NS2.4 <ul style="list-style-type: none"> • Models halves, quarters, thirds of an object. • Compares and orders fractions with the same denominator. • Interprets the denominator as the number of equal parts a whole has been divided into. • Interprets the numerator as the number of equal fractional parts. • Finds equivalence between halves, quarters and eighths of an objects or collection of objects. • Compare unit fractions by referring to the denominator or diagrams.

NAK Strand: NUMBER & PATTERNS (continued)

Section K — FRACTIONS (computation/operations & fractional parts: addition of fraction, subtraction of fractions)	<i>Number</i> Fractions and Decimals (Syllabus pp. 64–65)	NS3.4 (Stage 3) <ul style="list-style-type: none"> Finds equivalent fractions using a diagram, number line or simple mental strategy. Adds or subtracts fractions that have the same denominator. Adds or subtracts simple fractions where one denominator is a multiple of the other. Finds equivalence between halves, quarters and eighths of an objects or collection of objects.
Section L — REPRESENTING FRACTIONS & DECIMALS	<i>Number</i> Fractions and Decimals (Syllabus pp. 62, 63)	NS2.4 <ul style="list-style-type: none"> Expresses whole numbers as decimals. Interprets decimal notation for tenths or hundredths.
Section M — PROBLEM SOLVING	<i>Number</i> Whole Numbers (Syllabus p. 44) Addition and Subtraction (Syllabus pp. 49, 50) Multiplication and Division (Syllabus pp. 54, 55) Fractions and Decimals (Syllabus pp. 62, 63)	NS2.1, NS2.2, NS2.3, NS2.4 <ul style="list-style-type: none"> Rounds numbers to the nearest ten, hundred or thousand when estimating. Uses a range of mental and written strategies to solve addition, subtraction, multiplication and division problems eg counting on back, split/jump strategy, doubles, facts, skip counting, place value, calculators. Describes and records methods used to solve an addition, subtraction, multiplication or division problem. Adds or subtracts two decimal numbers with two decimal places. Rounds a number with one or two decimal places to the nearest whole number.

NAK Strand: MEASUREMENT

NAK Section	NSW Strand, Subtrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 2
Section A — ESTIMATE, MEASURE & COMPARE MEASUREMENTS: length, perimeter, area, volume, capacity, mass, measuring units, converting measurements	<i>Measurement</i> Length (Syllabus p. 94) Area (Syllabus p. 98) Volume and Capacity (Syllabus pp. 104,105) Mass (Syllabus p. 110)	MS2.1, MS2.2, MS2.3, MS2.4 <ul style="list-style-type: none"> Estimates, measures and compares the lengths of objects in metres, centimetres and / or millimetres. Uses the term 'perimeter' to describe total distance around a shape. Estimates and measures the perimeter of two-dimensional shapes. Reads and interprets calibrations on measuring devices eg ruler, measuring tape. Estimates, measures and records the size of a small area in square centimetres. Measures and compares small areas using a square centimetre grid overlay. Estimates, measures and orders the volume of objects. Selects from a range of containers those that have a capacity of more than, less than or about one litre. Identifies objects that have a mass more than, less than or about the same as a kilogram.
Section B — CONCEPT OF TIME/CLOCKS	<i>Measurement</i> Time (Syllabus p. 114)	MS2.5 <ul style="list-style-type: none"> Reads time using the terms 'quarter past' and 'quarter to'. Identifies which hour has just passed when the hour hand is not pointing to the numeral. Relates analog notation to digital notation.

NAK Strand: SPACE

NAK Section	NSW Strand, Subtrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 2
Section A — IDENTIFY, DESCRIBE, DRAW & COMPARE 2D SHAPES; SYMMETRY	<i>Space and Geometry</i> Two-dimensional Space (Syllabus pp. 126, 127)	SGS2.2a,b <ul style="list-style-type: none"> Identifies pentagons, octagons and parallelograms presented in different orientations. Groups two-dimensional shapes using multiple attributes. Describes features of special groups of quadrilaterals. Identify all lines of symmetry for a given shape.
Section B — IDENTIFY, DESCRIBE & COMPARE 3D SHAPES	<i>Space and Geometry</i> Three-dimensional Space (Syllabus p. 120)	SGS2.1 <ul style="list-style-type: none"> Describes the features of prisms, pyramids, cylinders, cones and spheres. Identifies, names groups of 3D shapes as prisms, pyramids, cylinders, cones and spheres.
Section C — LINES & ANGLES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 127)	SGS2.2,b <ul style="list-style-type: none"> Identifies and names parallel, vertical and horizontal lines in pictures, shapes and the environment. Identifies and names perpendicular lines. Identifies angles in two-dimensional shapes and three-dimensional objects. Compares and orders angles. Classifies angles as right, acute, obtuse, straight. (Stage 3)
Section D — USE LOCATION/POSITION LANGUAGE & READ SIMPLE MAPS	<i>Space and Geometry</i> Position (Syllabus p.136)	SG2.3 <ul style="list-style-type: none"> Follows oral instructions to position objects in models and in drawings. Describes the location of an object using more than one descriptor. Describes a route on a simple map. Uses simple coordinates on a grid to describe position. Plots point at given coordinates to create a picture.

NAK Strand: CHANCE & DATA

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 2
Section A — CHANCE	<i>Number</i> Chance (Syllabus p. 69)	NS2.5 <ul style="list-style-type: none"> • Uses the language of chance. • Predicts possible outcomes in a simple chance experiment. • Conducts simple experiments using coins, dice or spinners and records the results.
Section B — COMPARE & INTERPRET INFORMATION FROM GRAPHS	<i>Data</i> (Syllabus p. 87)	DS2.1 <ul style="list-style-type: none"> • Interprets information presented in a table, picture graph or column graph.
Section C — PRESENT, INTERPRET & SUMMARISE DATA; REPRESENT DATA (make graphs)	<i>Data</i> (Syllabus p. 87)	DS2.1 <ul style="list-style-type: none"> • Poses a suitable question that can be answered using a survey. • Constructs a column graph or a picture graph on grid paper using one-to-one correspondence. • Represents the same information in a table, a column graph or picture graph. • Interprets information presented in a table, picture graph or column graph.

Nelson Numeracy Assessment Kit

Sixth Year of School correlation to NSW Mathematics K–6 Syllabus Outcomes Stage 3

NAK Strand: NUMBER & PATTERNS

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 3
Section A — WHOLE NUMBERS (read, order & compare)	<i>Number</i> Whole Numbers (Syllabus p. 45)	NS3.1 <ul style="list-style-type: none"> • Reads, writes and says large numbers. • Writes a number represented orally. • Places a set of large numbers in ascending or descending order. • Rounds numbers to the nearest ten thousand when estimating.
Section B — WHOLE NUMBERS (place value)	<i>Number</i> Whole Numbers (Syllabus p. 45)	NS3.1 <ul style="list-style-type: none"> • Reads, writes and says large numbers. • Writes a number represented orally. • Records large numbers using expanded notation. • Explains the place value of any digit in a number.
Section C — PATTERNS	<i>Patterns and Algebra</i> (Syllabus pp. 76, 77)	PAS3.1 <ul style="list-style-type: none"> • Completes a table of values for a number pattern. • Calculates the value of a missing number in a table of values and explains how it was determined. • Determines a rule, in words, to describe the pattern represented. • Completes number sentences that involve more than one operation by calculating missing values.
Section D — WHOLE NUMBERS (computation/operations: addition, subtraction, multiplication, division, mathematical laws)	<i>Number</i> Addition and Subtraction (Syllabus p. 51) Multiplication and Division (Syllabus. p. 56) <i>Patterns and Algebra</i> (Syllabus p. 77)	NS3.2, NS3.3, PAS3.1 <ul style="list-style-type: none"> • Chooses appropriately between mental strategies for addition, subtraction, multiplication and division problems. • Explains the mental strategy used to solve a problem. • Recalls addition, subtraction, multiplication and division facts automatically. • Uses the formal written algorithm to solve problems involving counting numbers of any size. • Checks the solution to a problem by substituting into the original question. • Applies the associative and commutative property of addition and multiplication to aid mental computation.
Section E — MENTAL STRATEGIES (multiplication/division 1 to 12 facts)	<i>Number</i> Multiplication and Division (Syllabus. p. 56) <i>Patterns and Algebra</i> (Syllabus p. 77)	NS3.3, PAS3.1 <ul style="list-style-type: none"> • Chooses appropriately between mental strategies for multiplication and division problems. • Explains the mental strategy used to solve a problem. • Recalls multiplication and division facts automatically. • Constructs a number sentence to match a problem that is presented in words and that requires finding an unknown. • Checks the solution to a problem by substituting into the original question.
Section F — MENTAL STRATEGIES (operations with whole numbers)	<i>Number</i> Addition and Subtraction (Syllabus p. 51) <i>Patterns and Algebra</i> (Syllabus p. 77)	NS3.2, PAS3.1 <ul style="list-style-type: none"> • Chooses appropriately between mental strategies for addition and subtraction problems. • Explains the mental strategy used to solve a problem. • Recalls addition and subtraction facts automatically. • Constructs a number sentence to match a problem that is presented in words and that requires finding an unknown. • Checks the solution to a problem by substituting into the original question.
Section G — DECIMAL NUMBERS (read, order & compare)	<i>Number</i> Fractions and Decimals (Syllabus pp. 64-65)	NS3.4 <ul style="list-style-type: none"> • Compares and orders decimal numbers to two decimal places. • Round a number with decimal places to the nearest whole number, tenth or hundredth. • Places decimal numbers on a number line between 0 and 1.
Section H — DECIMAL NUMBERS (place value)	<i>Number</i> Fractions and Decimals (Syllabus pp. 64-65)	NS3.4 <ul style="list-style-type: none"> • Compares and orders decimal numbers to two decimal places. • Round a number with decimal places to the nearest whole number, tenth or hundredth. • Places decimal numbers on a number line between 0 and 1.
Section I — DECIMAL NUMBERS (computation/operations: addition of decimals, subtraction of decimals)	<i>Number</i> Addition and Subtraction (Syllabus p. 51) Fraction and Decimals (Syllabus pp. 64-65)	NS3.2, NS3.4 <ul style="list-style-type: none"> • Chooses appropriately between mental, written and calculator methods for addition/subtraction problems. • Uses estimation to check solutions to addition/subtraction problems. • Uses the formal written algorithm to solve addition/subtraction problems involving counting numbers of any size. • Adds or subtracts decimal numbers that have a different number of decimal places.
Section J — FRACTIONS (read, order & compare)	<i>Number</i> Fractions and Decimals (Syllabus pp. 64-65)	NS3.4 <ul style="list-style-type: none"> • Finds equivalent fractions using a diagram, number line or mental strategy. • Expresses improper fractions as mixed numerals. • Compares and orders fractions
Section K — FRACTIONS (computation/ operations & fractional parts: addition of fraction, subtraction of fractions)	<i>Number</i> Fractions and Decimals (Syllabus pp. 65-66)	NS3.4, NS4.3 (Stage 4) <ul style="list-style-type: none"> • Finds equivalent fractions using a diagram, number line or mental strategy. • Expresses improper fractions as mixed numerals. • Subtracts a unit fraction from a whole number. • Adds or subtracts fractions that have the same denominator. • Adds or subtracts simple fractions where one denominator is a multiple of the other.
Section L — REPRESENTING FRACTIONS & DECIMALS	<i>Number</i> Fractions and Decimals (Syllabus pp. 64-65)	NS3.4 <ul style="list-style-type: none"> • Compares and orders decimal numbers to two decimal places. • Round a number with decimal places to the nearest whole number, tenth or hundredth. • Compares and orders fractions

NAK Strand: NUMBER & PATTERNS (continued)

Section M — PROBLEM SOLVING	<i>Number</i> Addition and Subtraction (Syllabus p. 51) Multiplication and Division (Syllabus p. 56) Fractions and Decimals (Syllabus pp. 64-65) <i>Patterns and Algebra</i> (Syllabus p. 77)	NS3.2, NS3.3, NS3.4, PAS3.1 <ul style="list-style-type: none"> • Chooses appropriately between mental, written and calculator methods for addition, subtraction, multiplication and division problems. • Recalls addition, subtraction, multiplication and division facts automatically. • Adds, subtracts and multiplies simple fractions and decimal numbers. • Constructs a number sentence to match a problem that is presented in words and that requires finding an unknown. • Checks the solution to a number sentence by substituting into the original question.
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NAK Strand: MEASUREMENT

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 3
Section A — ESTIMATE, MEASURE & COMPARE MEASUREMENTS: length, perimeter, area, volume, measuring units, converting measurements	<i>Measurement</i> Length (Syllabus p. 95) Area (Syllabus p. 99) Volume and Capacity (Syllabus p.106) Mass (Syllabus p. 111)	MS3.1, MS3.2, MS3.3, MS3.4 <ul style="list-style-type: none"> • Selects and uses the appropriate measuring device to measure lengths, distances, perimeters and areas. • Selects and uses the appropriate unit to record lengths, distances, perimeters and areas. • Estimates, measures and compares the perimeters of squares, rectangles and triangles. • Explains that the perimeters of shapes can be found by finding the sum of the side lengths. • Explains the relationship between the length, breadth and area of squares and rectangles. • Estimates then measures the volume of a rectangular prism built from cubic centimetre blocks by counting the blocks. • Estimates then measures the capacity of a rectangular container using centimetre blocks. • Explains the relationship between length, breadth, height and volume of rectangular prisms. • Chooses appropriate units to solve problems involving mass. • Selects the appropriate device to measure mass. • Converts between kilograms and grams. (Stage 2) • Estimates and checks the number of similar objects which have a total mass of one kilogram. (Stage 2) • Uses decimal notation when recording mass.
Section B — CONCEPT OF TIME/CLOCKS	<i>Measurement</i> Time (Syllabus p. 115)	MS3.5 <ul style="list-style-type: none"> • Determines the duration of an event using starting and finishing times. • Reads and interprets simple timetables, timelines and calendars. • Uses 24-hour time notation to tell the time. • Converts between 24-hour notation and am/pm notation.

NAK Strand: SPACE

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 3
Section A — IDENTIFY, DESCRIBE & COMPARE 2D & 3D SHAPES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 128) Three-dimensional Space (Syllabus p. 121)	SGS3.2, SGS3.1 <ul style="list-style-type: none"> • Makes representations of 2D shapes in different orientations. • Names prisms and pyramids according to the shape of their base. • Describes and list some of the properties of 3D objects.
Section B — LINES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 127)	SGS2.2,b (Stage 2) <ul style="list-style-type: none"> • Identifies and names parallel, vertical and horizontal lines in pictures, shapes and the environment. • Identifies and names perpendicular lines.
Section C — ANGLES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 129)	SGS3.2b <ul style="list-style-type: none"> • Classifies angles as right, acute, obtuse, reflex, straight or a revolution. • Identifies angle types as intersecting lines.
Section D — SYMMETRY	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 126)	SGS2.2a (Stage 2) <ul style="list-style-type: none"> • Identifies all lines of symmetry for a given shape.
Section E — USE LOCATION/POSITION LANGUAGE & READ SIMPLE MAPS	<i>Space and Geometry</i> Position (Syllabus p. 137)	SGS3.3 <ul style="list-style-type: none"> • Finds a place on a map given its coordinates. • Uses a given map to plan or show a route. • Draws and labels a grid on a map. • Identifies different scaled representations of the same plan or model. • Uses scale to calculate the distance between two points on a map. • Locates a place on a map, which is a given direction from a town or landmark. • Draws a map from an aerial view.

NAK Strand: CHANCE & DATA

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 3
Section A — CHANCE	<i>Number</i> Chance (Syllabus p. 70)	NS3.5 <ul style="list-style-type: none"> • Uses data to order chance events from least likely to most likely. • Orders commonly used chance words or events on a number line from 0 (impossible) to 1 (certain).
Section B — COMPARE & INTERPRET INFORMATION FROM GRAPHS	<i>Data</i> (Syllabus p. 88)	DS3.1 <ul style="list-style-type: none"> • Interprets graphs to make generalisations about the data. • Names the category represented by each section in a divided bar graph or sector (pie) graph.
Section C — PRESENT, INTERPRET & SUMMARISE DATA; REPRESENT DATA (make graphs)	<i>Data</i> (Syllabus p. 88)	DS3.1 <ul style="list-style-type: none"> • Determines a suitable scale for data on a picture, column or line graph. • Draws a picture graph where one picture or symbol represents more than one item e.g. , = 100. • Interprets graphs to make generalisations about the data. • Draws a line graph to represent data that demonstrates a continuous change, eg temperature • Names the category represented by each section in a divided bar graph or sector (pie) graph.

Nelson Numeracy Assessment Kit

Seventh Year of School correlation to NSW Mathematics K–6 Syllabus Outcomes Stage 3

NAK Strand: NUMBER & PATTERNS

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 3
Section A — WHOLE NUMBERS (read, order & compare)	<i>Number</i> Whole Numbers (Syllabus p. 45)	NS3.1 <ul style="list-style-type: none"> • Reads, writes and says large numbers. • Writes a number represented orally. • Places a set of large numbers in ascending or descending order. • Rounds numbers to the nearest ten thousand when estimating.
Section B — WHOLE NUMBERS (place value)	<i>Number</i> Whole Numbers (Syllabus p. 45)	NS3.1 <ul style="list-style-type: none"> • Reads, writes and says large numbers. • Writes a number represented orally. • Records large numbers using expanded notation. • Explains the place value of any digit in a number.
Section C — PATTERNS	<i>Patterns and Algebra</i> (Syllabus pp. 76, 77)	PAS3.1 <ul style="list-style-type: none"> • Completes a table of values for a number pattern. • Calculates the value of a missing number in a table of values and explains how it was determined. • Records a description of a number pattern in words and diagrams. • Determines a rule, in words, to describe the pattern represented. • Completes number sentences that involve more than one operation by calculating missing values. • Identifies, explains, tests and continues number patterns.
Section D — WHOLE NUMBERS (computation/operations: addition, subtraction, multiplication, division, mathematical laws)	<i>Number</i> Addition and Subtraction (Syllabus p. 51) Multiplication and Division (Syllabus p. 56) Fractions and Decimals (Syllabus pp. 64-65) <i>Patterns and Algebra</i> (Syllabus p. 77)	NS3.2, NS3.3, NS3.4, PAS3.1 <ul style="list-style-type: none"> • Reads, writes and says any number. • Constructs a number sentence to match a problem that is presented in words and requires finding an unknown. • Chooses appropriately between mental strategies for addition, subtraction, multiplication and division problems. • Multiplies or divides a three- or four-digit number using a mental or written strategy. • Multiplies or divides a three-digit number by a two-digit number using the extended form of the formal written algorithm. • Multiplies or divides fractions or decimal numbers by single-digit numbers • Applies the associative and commutative property of addition and multiplication to aid mental computation.
Section E — MENTAL STRATEGIES (multiplication/division 1 to 12 facts)	<i>Number</i> Multiplication and Division (Syllabus p. 56) <i>Patterns and Algebra</i> (Syllabus p. 77)	NS3.3, PAS3.1 <ul style="list-style-type: none"> • Chooses appropriately between mental strategies for multiplication and division problems. • Explains the mental strategy used to solve a problem. • Recalls multiplication and division facts automatically. • Constructs a number sentence to match a problem that is presented in words and that requires finding an unknown. • Checks the solution to a problem by substituting into the original question.
Section F — MENTAL STRATEGIES (operations with whole numbers)	<i>Number</i> Addition and Subtraction (Syllabus p. 51) Multiplication and Division (Syllabus p. 56) <i>Patterns and Algebra</i> (Syllabus p. 77)	NS3.2, NS3.3, PAS3.1 <ul style="list-style-type: none"> • Chooses appropriately between mental strategies for addition, subtraction, multiplication and division problems. • Explains the mental strategy used to solve a problem. • Constructs a number sentence to match a problem that is presented in words and that requires finding an unknown. • Checks the solution to a problem by substituting into the original question.
Section G — DECIMAL NUMBERS (read, order & compare)	<i>Number</i> Fractions and Decimals (Syllabus pp. 64-65)	NS3.4 <ul style="list-style-type: none"> • Compares and orders decimal numbers to two decimal places. • Round a number with decimal places to the nearest whole number, tenth or hundredth. • Places decimal numbers on a number line between 0 and 1.
Section H — DECIMAL NUMBERS (place value)	<i>Number</i> Fractions and Decimals (Syllabus pp. 64-65)	NS3.4 <ul style="list-style-type: none"> • Compares and orders decimal numbers to two decimal places. • Round a number with decimal places to the nearest whole number, tenth or hundredth. • Places decimal numbers on a number line between 0 and 1. • Explains the place value of any digit in a number.
Section I — DECIMAL NUMBERS (computation/operations: addition of decimals, subtraction of decimals, multiplication of decimals)	<i>Number</i> Addition and Subtraction (Syllabus p. 51) Fraction and Decimals (Syllabus pp. 64-65)	NS3.2, NS3.4 <ul style="list-style-type: none"> • Adds, subtracts and multiplies simple fractions and decimal numbers. • Operates successfully with numbers in the range of 0.01 – 999 999.99. • Uses estimation to check solutions to addition/subtraction problems. • Uses the formal written algorithm to solve addition/subtraction problems involving counting numbers of any size. • Adds or subtracts decimal numbers that have a different number of decimal places.
Section J — FRACTIONS (read, order & compare)	<i>Number</i> Fractions and Decimals (Syllabus pp. 64-65)	NS3.4 <ul style="list-style-type: none"> • Finds equivalent fractions using a diagram, number line or mental strategy. • Expresses improper fractions as mixed numerals. • Compares and orders fractions
Section K — FRACTIONS (computation/operations & fractional parts: addition of fraction, subtraction of fractions)	<i>Number</i> Fractions and Decimals (Syllabus pp. 65-66)	NS3.4, NS4.3 <ul style="list-style-type: none"> • Finds equivalent fractions using a diagram, number line or mental strategy. • Expresses improper fractions as mixed numerals. • Subtracts a unit fraction from a whole number. • Adds or subtracts fractions that have the same denominator. • Adds or subtracts simple fractions where one denominator is a multiple of the other.

NAK Strand: NUMBER & PATTERNS (continued)

Section L — REPRESENTING FRACTIONS, DECIMALS & PERCENTAGES	<i>Number</i> Fractions and Decimals (Syllabus pp. 64-65)	NS3.4 <ul style="list-style-type: none"> Compares and orders decimal numbers to two decimal places. Round a number with decimal places to the nearest whole number, tenth or hundredth. Compares and orders fractions Expresses fractions as decimals or percentages. (Stage 4)
Section M — PROBLEM SOLVING	<i>Number</i> Addition and Subtraction (Syllabus p. 51) Multiplication and Division (Syllabus p. 56) Fractions and Decimals (Syllabus pp. 64-65) <i>Patterns and Algebra</i> (Syllabus p. 77)	NS3.2, NS3.3, NS3.4, PAS3.1 <ul style="list-style-type: none"> Chooses appropriately between mental, written and calculator methods for addition, subtraction, multiplication and division problems. Recalls addition, subtraction, multiplication and division facts automatically. Adds, subtracts and multiplies simple fractions and decimal numbers. Constructs a number sentence to match a problem that is presented in words and that requires finding an unknown. Checks the solution to a number sentence by substituting into the original question.

NAK Strand: MEASUREMENT

NAK Section	NSW Strand, Subtrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 3
Section A — ESTIMATE, MEASURE & COMPARE MEASUREMENTS: length, perimeter, area, volume, measuring units, temperature, converting measurements	<i>Measurement</i> Length (Syllabus p. 95) Area (Syllabus p. 99) Volume and Capacity (Syllabus p.106) Mass (Syllabus p. 111)	MS3.1, MS3.2, MS3.3, MS3.4 <ul style="list-style-type: none"> Selects and uses the appropriate measuring device to measure lengths, distances, perimeters and areas. Selects and uses the appropriate unit to record lengths, distances, perimeters and areas. Estimates, measures and compares the perimeters of squares, rectangles and triangles. Explains that the perimeters of shapes can be found by finding the sum of the side lengths. Explains the relationship between the length, breadth and area of squares and rectangles. Estimates then measures the volume of a rectangular prism built from cubic centimetre blocks by counting the blocks. Estimates then measures the capacity of a rectangular container using centimetre blocks. Explains the relationship between length, breadth, height and volume of rectangular prisms. Chooses appropriate units to solve problems involving mass. Selects the appropriate device to measure mass. Converts between kilograms and grams. (Stage 2) Estimates and checks the number of similar objects which have a total mass of one kilogram. (Stage 2) Uses decimal notation when recording mass.
Section B — CONCEPT OF TIME/CLOCKS	<i>Measurement</i> Time (Syllabus p. 115)	MS3.5 <ul style="list-style-type: none"> Reads analog and digital times to the minute. Determines the duration of an event using starting and finishing times. Uses 24-hour time notation to tell the time. Converts between 24-hour notation and am/pm notation. Reads timetables from real-life situations.

NAK Strand: SPACE

NAK Section	NSW Strand, Subtrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 3
Section A — IDENTIFY, DESCRIBE & COMPARE 2D & 3D SHAPES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 128) Three-dimensional Space (Syllabus p. 121)	SGS3.2, SGS3.1 <ul style="list-style-type: none"> Makes representations of 2D shapes in different orientations. Names prisms and pyramids according to the shape of their base. Describes and list some of the properties of 3D objects.
Section B — LINES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus p. 127)	SGS2.2 b (Stage 2) <ul style="list-style-type: none"> Identifies and names parallel, vertical and horizontal lines in pictures, shapes and the environment. Identifies and names perpendicular lines.
Section C — ANGLES	<i>Space and Geometry</i> Two-dimensional Space (Syllabus pp. 129)	SGS3.2b <ul style="list-style-type: none"> Measures and constructs angles in degrees using a protractor. Classifies angles as right, acute, obtuse, reflex, straight or a revolution. Identifies angle types as intersecting lines.
Section D — SYMMETRY	<i>Space and Geometry</i> Two-dimensional Space (Syllabus pp. 126, 128)	SGS2.2, SGS2.2a (Stage 2) SGS3.2a <ul style="list-style-type: none"> Identifies all lines of symmetry for a given shape. Identifies and names shapes that have rotational symmetry.
Section E — USE LOCATION/POSITION LANGUAGE & READ SIMPLE MAPS	<i>Space and Geometry</i> Position (Syllabus p. 137)	SGS3.3 <ul style="list-style-type: none"> Finds a place on a map given its coordinates. Uses a given map to plan or show a route. Draws and labels a grid on a map. Identifies different scaled representations of the same plan or model. Uses scale to calculate the distance between two points on a map. Locates a place on a map, which is a given direction from a town or landmark.

NAK Strand: CHANCE & DATA

NAK Section	NSW Strand, Substrand and Syllabus-related Content Reference	Working towards Learning Outcome Reference and Indicators Stage 3
Section A — CHANCE	<i>Number</i> Chance (Syllabus p. 70)	NS3.5 <ul style="list-style-type: none"> • Orders commonly used chance words or events on a number line from 0 (impossible) to 1 (certain). • Describes the likelihood of an event occurring as being more or less than a half.
Section B — COMPARE & INTERPRET INFORMATION FROM GRAPHS	<i>Data</i> (Syllabus p. 88)	DS3.1 <ul style="list-style-type: none"> • Interprets graphs to make generalisations about the data. • Names the category represented by each section in a divided bar graph or sector (pie) graph.
Section C — PRESENT, INTERPRET & SUMMARISE DATA; REPRESENT DATA (make graphs)	<i>Data</i> (Syllabus p. 88)	DS3.1 <ul style="list-style-type: none"> • Determines a suitable scale for data on a picture, column or line graph. • Draws a picture graph where one picture or symbol represents more than one item e.g. , = 100. • Interprets graphs to make generalisations about the data. • Draws a line graph to represent data that demonstrates a continuous change, eg temperature • Names the category represented by each section in a divided bar graph or sector (pie) graph.