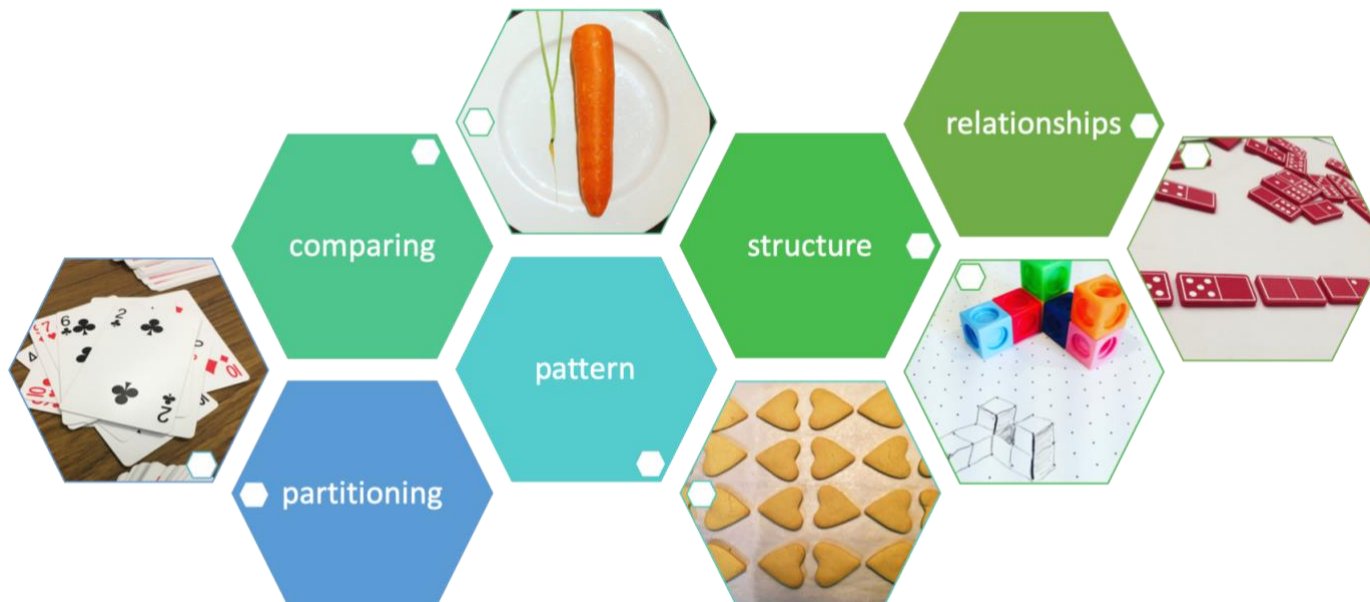


## Content Clusters - Overview

This document includes all four stages' content clusters in one document to assist with planning (both a quick list overview of all the clusters then all the clusters in detail at the end of this document). It also includes a table that shows the progression of concepts across stages - indicating concepts that are the same or similar in each stage. This table may be of specific assistance to those teachers teaching across stages or in a multi-stage class.



## Early Stage 1 Overview of Content Clusters

Content Cluster 1: Counting (developing principles of number sense)

Content Cluster 2: Counting to form groups (combining amounts and building number relationships)

Content Cluster 3: Sharing (division) can be used to represent fractions

Content Cluster 4: Quantities can be compared through counting

Content Cluster 5: Counting can be used to sequence events

Content Cluster 6: Units can be sequenced through counting

Content Cluster 7: Items or objects can be classified and described (sorting)

Content Cluster 8: Quantities can be represented (oral, image/drawing, number, symbol)

Content Cluster 9: Features of objects and shapes can be compared (e.g. size, shape)

Content Cluster 10: Equal means 'the same as'

Content Cluster 11: Numerals and their representations can be compared

Content Cluster 12: Repeating patterns continue (starting with visual: shapes and objects)

Content Cluster 13: Objects can be identified by size, space and location

Content Cluster 14: Quantities can be compared (linear) using estimation

Content Cluster 15: Quantities can be compared (objects) using estimation

Content Cluster 16: Information can be represented visually

Content Cluster 17: Number sense can be applied to count and compare money

Content Cluster 18: Duration relates time to events and representations (e.g. clock)

## Stage 1 Overview of Content Clusters

Content Cluster 1: Counting numbers (follow a pattern to develop number sense and place value)

Content Cluster 2: Visual representation of collections allows us to compare quantities

Content Cluster 3: Comparing quantities (using numbers, symbols and words)

Content Cluster 4: Trusting the count: Counting can start from numbers other than one (as a starting point for addition and subtraction)

Content Cluster 5: Number Representations: Numbers can be represented by words/language, images/drawings, number

Content Cluster 6: Partitioning: Numbers can be partitioned in multiple ways (part-whole number knowledge)

Content Cluster 7: Place Value: A number can be regrouped or renamed to aid in operating with the number (partitioning to operate with numbers)

Content Cluster 8: Applies non-count-by-ones (as flexible arithmetic strategies)

Content Cluster 9: One ten is ten ones (number relationships, place value)

Content Cluster 10: One hundred can be regrouped as ten tens, or, one hundred ones (number relationships, place value)

Content Cluster 11: Any number can be a countable unit e.g. counting by fives off the decade (e.g. relate to money)

Content Cluster 12: Numbers can be represented using pairs to show odd and even

Content Cluster 13: Patterns repeat or grow and the next number can be predicted (number structure)

Content Cluster 14: The 'equals sign' means 'the same as' (equality and inequality)

Content Cluster 15: Array structure: Multiples can be visually represented in an array (structure of number)

Content Cluster 16: The 'for each' concept: For each one of these (how many rows) there are some of those (how much in each row) - multiplicative thinking

Content Cluster 17: Quantities can be estimated (how much/ how many) using counting

Content Cluster 18: Benchmarks can be used to estimate quantity (how much/ how many)

Content Cluster 19: An object has attributes that can be measured using different processes

Content Cluster 20: Repeated units provide structure: Units of measurement can be iterated (no gaps or overlaps)

Content Cluster 21: Objects can be ordered based on (informal) units of measurement (e.g. size, quantity/number of cubes a container can hold)

## **Stage 1 Overview of Content Clusters cont.**

Content Cluster 22: Objects can be measured and compared using formal units

Content Cluster 23: A fraction is a number that represents a relationship between parts and the whole (number relationships)

Content Cluster 24: Fractions are created through sharing - division (a fraction is less than one whole and that fractions are the result of dividing e.g sharing 2 biscuits among 4 people)

Content Cluster 25: A fraction can be represented in many ways e.g as length, area, or a collection (continuous and discrete representations)

Content Cluster 26: Shape properties remain constant even when they are moved or reorientated (transforming shapes)

Content Cluster 27: Shapes and objects are classified based on properties (describing and comparing features)

Content Cluster 28: Patterns can be created using shapes (copying, turning, flipping, sliding)

Content Cluster 29: Locating: Your position can be described in relation to other objects or landmarks

Content Cluster 30: Time can be measured in minutes and hours

Content Cluster 31: Time (duration) can be visually represented in multiple ways e.g. calendars, clocks, timetables

Content Cluster 32: Collecting data: Information can be collected and represented using numbers

Content Cluster 33: Representing data: Information can be presented visually to convey meaning (data representations)

Content Cluster 34: Events can be measured and predicted based on chance

## Stage 2 Overview of Content Clusters

Content Cluster 1: Flexible counting (any number can be a countable unit)

Content Cluster 2: Place value (numbers can be regrouped and renamed – partitioning)

Content Cluster 3: Representing numbers (numbers can be represented and ordered based on their place value)

Content Cluster 4: Number representations (numbers can be represented by words/language, images/drawings, numbers/symbols)

Content Cluster 5: Comparing quantities – linear focus (numbers can be compared based on size and place value)

Content Cluster 6: Comparing quantities – area/volume focus (numbers can be compared based on size and place value)

Content Cluster 7: Flexible strategies for operating with numbers (numbers can be partitioned to assist with computation)

Content Cluster 8: Partitioning: Part-whole number knowledge (numbers can be partitioned in multiple ways)

Content Cluster 9: Money uses a many-to-one scale

Content Cluster 10: The 'equals sign' means "the same as" (equality and inequality)

Content Cluster 11: Number relationships – converting (one thousand can be regrouped as 10 hundreds, 100 tens, or 1000 ones)

Content Cluster 12: Numbers can be represented using pairs to explore odd and even properties

Content Cluster 13: Patterns repeat or grow and future terms can be predicted (number structure)

Content Cluster 14: Multiples can be visually represented as an array (number structure)

Content Cluster 15: The 'for each' concept – for each of these (how many rows), there are some of those (how much in each row)

Content Cluster 16: A fraction is a number that represents a relationship between parts and the whole

Content Cluster 17: Fractions represent division (number relationships)

Content Cluster 18: Time can be measured in hours, minutes and seconds (links to fractional language)

Content Cluster 19: Duration can be calculated using units of time

Content Cluster 20: Time can be represented in multiple ways (e.g. calendars, timelines, timetables)

Content Cluster 21: Measurements are approximations and can be represented using formal units

Content Cluster 22: Benchmark numbers can be used to estimate quantities (how much/how many)

## **Stage 2 Overview of Content Clusters cont.**

Content Cluster 23: Numbers and quantities can be compared using scale (links to proportionality)

Content Cluster 24: Objects can be measured and compared through different representations

Content Cluster 25: Shapes can be measured and compared through different representations

Content Cluster 26: Shape properties remain constant even when they are moved or reorientated (transforming shapes)

Content Cluster 27: Shapes and objects are classified based on properties (comparing features)

Content Cluster 28: Patterns can be created using shapes (copying, rotating, translating and reflecting)

Content Cluster 29: Locating and positioning is based on references (to points or one's self)

Content Cluster 30: Information can be collected, represented and analysed using numbers (collecting data)

Content Cluster 31: Information can be presented visually to convey meaning (data representations)

Content Cluster 32: Events can be predicted, measured, and discussed based on chance

## Stage 3 Overview of Content Clusters

Content Cluster 1: Place value (numbers can be regrouped and renamed – partitioning)

Content Cluster 2: Representing numbers (numbers can be represented, ordered and compared based on their place value)

Content Cluster 3: Comparing quantities – linear focus (numbers can be compared based on size and place value)

Content Cluster 4: Comparing quantities – area/volume/mass focus (numbers can be compared based on size and place value)

Content Cluster 5: Partitioning: Part-whole number knowledge (numbers can be partitioned in multiple ways)

Content Cluster 6: Flexible strategies for operating with numbers (numbers can be partitioned to assist with computation)

Content Cluster 7: A variety of strategies can be applied to solve word problems

Content Cluster 8: Multiples can be visually represented as an array ('for each' number structure)

Content Cluster 9: Reasonableness of solutions can be checked using estimation

Content Cluster 10: Benchmark numbers can be used to estimate quantities (how much/how many)

Content Cluster 11: Number relationships – converting (e.g. one thousand can be regrouped as 10 hundreds, 100 tens, or 1000 ones)

Content Cluster 12: Money uses a many-to-one scale (link to place value e.g. 100 cents is equal to \$1)

Content Cluster 13: The 'equals sign' means "the same as" (equality and inequality)

Content Cluster 14: Numbers can be represented using pairs to explore odd and even properties

Content Cluster 15: Patterns repeat or grow and future terms can be predicted (number structure)

Content Cluster 16: Patterns can be represented geometrically

Content Cluster 17: A fraction is a number (that represents a relationship between parts and the whole)

Content Cluster 18: Fractions represent division (number relationships)

Content Cluster 19: Fractions as a measure

Content Cluster 20: Fractions as an operator

Content Cluster 21: Time can be measured and compared in hours, minutes and seconds (relating 12 to 24 hour time)

## **Stage 3 Overview of Content Clusters cont.**

Content Cluster 22: Numbers and quantities can be compared using scale (links to proportionality)

Content Cluster 23: Measurements are approximations and can be represented using formal units

Content Cluster 24: The multiplicative structure (row and column) can be applied to measure area and volume

Content Cluster 25: Objects can be measured and compared through different representations

Content Cluster 26: Shapes can be measured and compared through different representations

Content Cluster 27: Shape and objects are classified based on their properties

Content Cluster 28: Grid references and coordinates can be used for locating and positioning

Content Cluster 29: Information can be collected, analysed and interpreted using numbers (collecting data)

Content Cluster 30: Information can be presented visually to convey meaning (data representations and exploring bias)

Content Cluster 31: Events can be predicted, compared, and analysed based on probability

Content Cluster 32: Probabilities of events can be described in a range of 0 – 1 (probabilities as fractions of a whole)



## Content Clusters: Links across stages

Early Stage 1	Stage 1	Stage 2	Stage 3
Content Cluster 1: Counting (developing principles of number sense)	<p>Content Cluster 1: Counting numbers (follow a pattern to develop number sense and place value)</p> <p>Content Cluster 4: Trusting the count: Counting can start from numbers other than one (as a starting point for addition and subtraction)</p>		
Content Cluster 2: Counting to form groups (combining amounts and building number relationships)	<p>Content Cluster 6: Partitioning: Numbers can be partitioned in multiple ways (part-whole number knowledge)</p> <p>Content Cluster 9: One ten is ten ones (number relationships, place value)</p> <p>Content Cluster 10: One hundred can be regrouped as ten tens, or, one hundred ones (number relationships, place value)</p> <p>Content Cluster 16: The 'for each' concept: For each one of these (how many rows) there are some of those (how much in each row) - multiplicative thinking</p>	<p>Content Cluster 8: Partitioning: Part-whole number knowledge (numbers can be partitioned in multiple ways)</p> <p>Content Cluster 11: Number relationships – converting (one thousand can be regrouped as 10 hundreds, 100 tens, or 1000 ones)</p> <p>Content Cluster 15: The 'for each' concept – for each of these (how many rows), there are some of those (how much in each row)</p>	<p>Content Cluster 5: Partitioning: Part-whole number knowledge (numbers can be partitioned in multiple ways)</p> <p>Content Cluster 11: Number relationships – converting (e.g. one thousand can be regrouped as 10 hundreds, 100 tens, or 1000 ones)</p>



Early Stage 1	Stage 1	Stage 2	Stage 3
<p>Content Cluster 3: Sharing (division) can be used to represent fractions</p>	<p>Content Cluster 23: A fraction is a number that represents a relationship between parts and the whole (number relationships)</p> <p>Content Cluster 24: Fractions are created through sharing - division (a fraction is less than one whole and that fractions are the result of dividing e.g. sharing 2 biscuits among 4 people)</p> <p>Content Cluster 25: A fraction can be represented in many ways e.g. as length, area, or a collection (continuous and discrete representations)</p>	<p>Content Cluster 16: A fraction is a number that represents a relationship between parts and the whole</p> <p>Content Cluster 17: Fractions represent division (number relationships)</p>	<p>Content Cluster 17: A fraction is a number (that represents a relationship between parts and the whole)</p> <p>Content Cluster 18: Fractions represent division (number relationships)</p>
			<p>Content Cluster 19: Fractions as a measure</p> <p>Content Cluster 20: Fractions as an operator</p>
<p>Content Cluster 4: Quantities can be compared through counting</p>	<p>Content Cluster 3: Comparing quantities (using numbers, symbols and words)</p> <p>Content Cluster 7: Place Value: A number can be regrouped or renamed to aid in operating with the number (partitioning to operate with numbers)</p>	<p>Content Cluster 2: Place value (numbers can be regrouped and renamed – partitioning)</p> <p>Content Cluster 7: Flexible strategies for operating with numbers (numbers can be partitioned to assist with computation)</p>	<p>Content Cluster 1: Place value (numbers can be regrouped and renamed – partitioning)</p> <p>Content Cluster 2: Representing numbers (numbers can be represented, ordered and compared based on their place value)</p>

Early Stage 1	Stage 1	Stage 2	Stage 3
	Content Cluster 8: Applies non-count-by-ones (as flexible arithmetic strategies)		Content Cluster 6: Flexible strategies for operating with numbers (numbers can be partitioned to assist with computation)  Content Cluster 7: A variety of strategies can be applied to solve word problems
		Content Cluster 23: Numbers and quantities can be compared using scale (links to proportionality)	Content Cluster 22: Numbers and quantities can be compared using scale (links to proportionality)
Content Cluster 5: Counting can be used to sequence events	Content Cluster 30: Time can be measured in minutes and hours	Content Cluster 18: Time can be measured in hours, minutes and seconds (links to fractional language)  Content Cluster 19: Duration can be calculated using units of time	Content Cluster 21: Time can be measured and compared in hours, minutes and seconds (relating 12 to 24-hour time)
Content Cluster 6: Units can be sequenced through counting	Content Cluster 20: Repeated units provide structure: Units of measurement can be iterated (no gaps or overlaps)	Content Cluster 25: Shapes can be measured and compared through different representations	Content Cluster 26: Shapes can be measured and compared through different representations
Content Cluster 7: Items or objects can be classified and described (sorting)	Content Cluster 27: Shapes and objects are classified based on properties (describing and comparing features)	Content Cluster 27: Shapes and objects are classified based on properties (comparing features)	Content Cluster 27: Shape and objects are classified based on their properties
Content Cluster 8: Quantities can be represented (oral, image/drawing, number, symbol)	Content Cluster 2: Visual representation of collections allows us to compare quantities	Content Cluster 4: Number representations (numbers can be represented by words/language, images/drawings, numbers/symbols)	

Early Stage 1	Stage 1	Stage 2	Stage 3
Content Cluster 9: Features of objects and shapes can be compared (e.g. size, shape)	Content Cluster 26: Shape properties remain constant even when they are moved or reorientated (transforming shapes)	Content Cluster 26: Shape properties remain constant even when they are moved or reorientated (transforming shapes)	
Content Cluster 10: Equal means 'the same as'	Content Cluster 14: The 'equals sign' means 'the same as' (equality and inequality)	Content Cluster 10: The 'equals sign' means "the same as" (equality and inequality)	Content Cluster 13: The 'equals sign' means "the same as" (equality and inequality)
Content Cluster 11: Numerals and their representations can be compared	Content Cluster 5: Number Representations: Numbers can be represented by words/language, images/drawings, number	Content Cluster 3: Representing numbers (numbers can be represented and ordered based on their place value)	
Content Cluster 12: Repeating patterns continue (starting with visual: shapes and objects)	Content Cluster 13: Patterns repeat or grow and the next number can be predicted (number structure)	Content Cluster 13: Patterns repeat or grow and future terms can be predicted (number structure)	Content Cluster 15: Patterns repeat or grow and future terms can be predicted (number structure)
	Content Cluster 28: Patterns can be created using shapes (copying, turning, flipping, sliding)	Content Cluster 28: Patterns can be created using shapes (copying, rotating, translating and reflecting)	Content Cluster 16: Patterns can be represented geometrically
	Content Cluster 12: Numbers can be represented using pairs to show odd and even	Content Cluster 12: Numbers can be represented using pairs to explore odd and even properties	Content Cluster 14: Numbers can be represented using pairs to explore odd and even properties
Content Cluster 13: Objects can be identified by size, space and location	Content Cluster 21: Objects can be ordered based on (informal) units of measurement (e.g. size, quantity/number of cubes a container can hold)	Content Cluster 29: Locating and positioning is based on references (to points or one's self)	Content Cluster 28: Grid references and coordinates can be used for locating and positioning



Early Stage 1	Stage 1	Stage 2	Stage 3
	<p>Content Cluster 29: Locating: Your position can be described in relation to other objects or landmarks</p>		
<p>Content Cluster 14: Quantities can be compared (linear) using estimation</p>	<p>Content Cluster 17: Quantities can be estimated (how much/ how many) using counting</p> <p>Content Cluster 18: Benchmarks can be used to estimate quantity (how much/ how many)</p>	<p>Content Cluster 5: Comparing quantities – linear focus (numbers can be compared based on size and place value)</p> <p>Content Cluster 22: Benchmark numbers can be used to estimate quantities (how much/how many)</p>	<p>Content Cluster 3: Comparing quantities – linear focus (numbers can be compared based on size and place value)</p> <p>Content Cluster 9: Reasonableness of solutions can be checked using estimation</p> <p>Content Cluster 10: Benchmark numbers can be used to estimate quantities (how much/how many)</p>
		<p>Content Cluster 21: Measurements are approximations and can be represented using formal units</p>	<p>Content Cluster 23: Measurements are approximations and can be represented using formal units</p>
<p>Content Cluster 15: Quantities can be compared (objects) using estimation</p>	<p>Content Cluster 15: Array structure: Multiples can be visually represented in an array (structure of number)</p>	<p>Content Cluster 6: Comparing quantities – area/volume focus (numbers can be compared based on size and place value)</p> <p>Content Cluster 14: Multiples can be visually represented as an array (number structure)</p>	<p>Content Cluster 4: Comparing quantities – area/volume/mass focus (numbers can be compared based on size and place value)</p> <p>Content Cluster 8: Multiples can be visually represented as an array ('for each' number structure)</p>

Early Stage 1	Stage 1	Stage 2	Stage 3
			Content Cluster 24: The multiplicative structure (row and column) can be applied to measure area and volume
	<p>Content Cluster 19: An object has attributes that can be measured using different processes</p> <p>Content Cluster 22: Objects can be measured and compared using formal units</p>	Content Cluster 24: Objects can be measured and compared through different representations	Content Cluster 25: Objects can be measured and compared through different representations
Content Cluster 16: Information can be represented visually	Content Cluster 33: Information can be presented visually to convey meaning (data representations)	Content Cluster 31: Information can be presented visually to convey meaning (data representations)	Content Cluster 30: Information can be presented visually to convey meaning (data representations and exploring bias)
	Content Cluster 32: Information can be collected and represented using numbers	Content Cluster 30: Information can be collected, represented and analysed using numbers (collecting data)	Content Cluster 29: Information can be collected, analysed and interpreted using numbers (collecting data)
Content Cluster 17: Number sense can be applied to count and compare money	Content Cluster 11: Any number can be a countable unit e.g. counting by fives off the decade (e.g. relate to money)	<p>Content Cluster 1: Flexible counting (any number can be a countable unit)</p> <p>Content Cluster 9: Money uses a many-to-one scale</p>	Content Cluster 12: Money uses a many-to-one scale (link to place value e.g. 100 cents is equal to \$1)
Content Cluster 18: Duration relates time to events and representations (e.g. clock)	Content Cluster 31: Time (duration) can be visually represented in multiple ways e.g. calendars, clocks	Content Cluster 20: Time can be represented in multiple ways (e.g. calendars, timelines, timetables)	



Early Stage 1	Stage 1	Stage 2	Stage 3
	Content Cluster 34: Events can be measured and predicted based on chance	Content Cluster 32: Events can be predicted, measured, and discussed based on chance	Content Cluster 31: Events can be predicted, compared, and analysed based on probability  Content Cluster 32: Probabilities of events can be described in a range of 0 – 1 (probabilities as fractions of a whole)

## Early Stage 1 Content Clusters

Content Cluster 1: Counting (developing principles of number sense)			
<p><b>Whole Numbers MAe-4NA</b> Count forwards to 30 from a given number Count backwards from a given number in the range 0 to 20</p>	<p><b>Addition and Subtraction MAe-5NA</b> Combine two or more groups of objects to model addition</p>	<p><b>Patterns and Algebra MAe-8NA</b> Recognise, copy, continue, create and describe repeating patterns of objects and drawings</p>	
Content Cluster 2: Counting to form groups (combining amounts and building number relationships)			
<p><b>Addition and Subtraction MAe-5NA</b> Combine two or more groups of objects to model addition Subitise small collections of objects</p>	<p><b>Multiplication and Division MAe-6NA</b> Investigate and model equal groups Record grouping and sharing using informal methods</p>	<p><b>Patterns and Algebra MAe-8NA</b> Sort and classify objects into groups</p>	
Content Cluster 3: Sharing (division) can be used to represent fractions			
<p><b>Addition and Subtraction MAe-5NA</b> Take part of a group away to model subtraction</p>	<p><b>Fractions and Decimals MAe-7NA</b> Establish the concept of one-half Record halves of objects using drawings</p>	<p><b>Multiplication and Division MAe-6NA</b> Investigate and model equal groups Record grouping and sharing using informal methods</p>	<p><b>Two-Dimensional Space MAe-15MG</b> Sort, manipulate, make and draw circles, squares, triangles and rectangles</p>



## Early Stage 1 Content Clusters

Content Cluster 4: Quantities can be compared through counting	
<p><b>Addition and Subtraction MAe-5NA</b></p> <p>Combine two or more groups of objects to model addition</p> <p>Take part of a group away to model subtraction</p> <p>Compare two groups to determine 'how many more'</p>	<p><b>Volume and Capacity MAe-11MG</b></p> <p>Describe capacity and volume using everyday language, including comparatives</p> <p>Compare volumes and capacities using direct comparison</p>
Content Cluster 5: Counting can be used to sequence events	
<p><b>Whole Numbers MAe-4NA</b></p> <p>Compare, order, read and represent numbers to at least 20</p> <p>Read and use the ordinal names to at least 'tenth'</p>	<p><b>Time MAe-13MG</b></p> <p>Compare and order the duration of events using everyday language</p> <p>Sequence events in time</p>
Content Cluster 6: Units can be sequenced through counting	
<p><b>Whole Numbers MAe-4NA</b></p> <p>Compare, order, read and represent numbers to at least 20</p>	<p><b>Length MAe-9MG</b></p> <p>Identify the attribute of 'length' as a measure of an object from end to end</p> <p>Describe length and distance using everyday language, including comparatives</p> <p>Compare lengths using direct comparison</p>

## Early Stage 1 Content Clusters

### Content Cluster 7: Items or objects can be classified and described (sorting)

<p><b>Three-Dimensional Space MAe-14MG</b> Sort and manipulate three-dimensional objects found in the environment</p>	<p><b>Two-Dimensional Space MAe-15MG</b> Sort, manipulate, make and draw circles, squares, triangles and rectangles</p>	<p><b>Position MAe-16MG</b> Describe position using everyday language Use the terms 'left' and 'right' to describe position in relation to self</p>	<p><b>Patterns and Algebra MAe-8NA</b> Sort and classify objects into groups</p>
---	---	---	--

### Content Cluster 8: Quantities can be represented (oral, image/drawing, number, symbol)

<p><b>Whole Numbers MAe-4NA</b> Compare, order, read and represent numbers to at least 20</p>	<p><b>Data MAe-17SP</b> Collect information about themselves and their environment Organise actual objects into data displays</p>	<p><b>Time MAe-13MG</b> Connect days of the week to familiar events and actions Tell time on the hour on digital and analog clocks</p>
---	---	--

### Content Cluster 9: Features of objects and shapes can be compared (e.g. size, shape)

<p><b>Three-Dimensional Space MAe-14MG</b> Describe features of common three-dimensional objects using everyday language</p>	<p><b>Two-Dimensional Space MAe-15MG</b> Identify, name and describe circles, squares, triangles and rectangles presented in different orientations, in pictures and the environment</p>	<p><b>Patterns and Algebra MAe-8NA</b> Sort and classify objects into groups</p>
--	--	--

## Early Stage 1 Content Clusters

### Content Cluster 10: Equal means 'the same as'

#### Whole Numbers MAe-4NA

Use the term 'is the same as' to express equality of groups

#### Multiplication and Division MAe-6NA

Investigate and model equal groups  
Record grouping and sharing using informal methods

#### Fractions and Decimals MAe-7NA

Establish the concept of one-half  
Record halves of objects using drawings

### Content Cluster 11: Numerals and their representations can be compared

#### Whole Numbers MAe-4NA

Compare, order, read and represent numbers to at least 20

#### Addition and Subtraction MAe-5NA

Combine two or more groups of objects to model addition  
Record addition and subtraction informally

#### Multiplication and Division MAe-6NA

Record grouping and sharing using informal methods

### Content Cluster 12: Repeating patterns continue (starting with visual: shapes and objects)

#### Patterns and Algebra MAe-8NA

Recognise, copy, continue, create and describe repeating patterns of objects and drawings

#### Whole Numbers MAe-4NA

Subitise small collections of objects  
Use the term 'is the same as' to express equality of groups

#### Two-Dimensional Space MAe-15MG

Sort, manipulate, make and draw circles, squares, triangles and rectangles

#### Position MAe-16MG

Describe position using everyday language

## Early Stage 1 Content Clusters

Content Cluster 13: Objects can be identified by size, space and location			
<p><b>Area MAe-10MG</b> Identify the attribute of 'area' as a measure of the amount of surface</p>	<p><b>Volume and Capacity MAe-11MG</b> Identify the attribute of 'capacity' as a measure of the amount of substance a container can hold Identify the attribute of 'volume' as a measure of the amount of space an object occupies</p>	<p><b>Mass MAe-12MG</b> Identify the attribute of 'mass' as a measure of the amount of matter in an object</p>	<p><b>Position MAe-16MG</b> Give and follow simple directions Describe position using everyday language</p>
Content Cluster 14: Quantities can be compared (linear) using estimation			
<p><b>Whole Numbers MAe-4NA</b> Count forwards to 30 from a given number Count backwards from a given number in the range 0 to 20</p>	<p><b>Length MAe-9MG</b> Describe length and distance using everyday language, including comparatives Compare lengths using direct comparison Record comparisons of length informally</p>	<p><b>Area MAe-10MG</b> Describe area using everyday language, including comparatives Compare areas using direct comparison Record comparisons of area informally</p>	<p><b>Position MAe-16MG</b> Describe position using everyday language</p>
Content Cluster 15: Quantities can be compared (objects) using estimation			
<p><b>Whole Numbers MAe-4NA</b> Count forwards to 30 from a given number Count backwards from a given number in the range 0 to 20</p>	<p><b>Area MAe-10MG</b> Describe area using everyday language, including comparatives Compare areas using direct comparison</p>	<p><b>Volume and Capacity MAe-11MG</b> Describe capacity and volume using everyday language, including comparatives Compare volumes and capacities using direct comparison Record comparisons of capacity and volume informally</p>	<p><b>Mass MAe-12MG</b> Describe mass using everyday language, including comparatives Compare masses directly by hefting Record comparisons of mass informally</p>

## Early Stage 1 Content Clusters

### Content Cluster 16: Information can be represented visually

<p><b>Data MAe-17SP</b> Organise actual objects into data displays Interpret data displays made from objects</p>	<p><b>Whole Numbers MAe-4NA</b> Compare, order, read and represent numbers to at least 20 Use the term 'is the same as' to express equality of groups</p>	<p><b>Three-Dimensional Space MAe-14MG</b> Sort and manipulate three-dimensional objects found in the environment</p>	<p><b>Time MAe-13MG</b> Tell time on the hour on digital and analog clocks</p>
--	---	---	--

### Content Cluster 17: Number sense can be applied to count and compare money

<p><b>Whole Numbers MAe-4NA</b> Compare, order, read and represent numbers to at least 20 Use the language of money</p>	<p><b>Addition and Subtraction Mae-5NA</b> Combine two or more groups of objects to model addition Take part of a group away to model subtraction Compare two groups to determine 'how many more'</p>
---	---

### Content Cluster 18: Duration relates time to events and representations (e.g. clock)

<p><b>Whole Numbers MAe-4NA</b> Compare, order, read and represent numbers to at least 20</p>	<p><b>Time MAe-13MG</b> Connect days of the week to familiar events and actions Tell time on the hour on digital and analog clocks</p>	<p><b>Fractions and Decimals MAe-7NA</b> Establish the concept of one-half</p>
---	--	--

## Stage 1 Content Clusters

Content Cluster 1: Counting numbers (follow a pattern to develop number sense and place value)			
<b>Whole Numbers 1 MA1-4NA</b> Read, write and order two-digit numbers Read and use ordinal names to at least 'thirty-first'	<b>Whole Numbers 2 MA1-4NA</b> Read, write and order three-digit numbers	<b>Multiplication and Division 1 MA1-6NA</b> Rhythmic and skip count by twos, fives and tens from zero	<b>Patterns and Algebra 1 MA1-8NA</b> Recognise, copy, continue, create and describe increasing and decreasing number patterns <b>Patterns and Algebra 2 MA1-8NA</b> Describe patterns with numbers and identify missing elements

Content Cluster 2: Visual representation of collections allows us to compare quantities			
<b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials Model and apply the commutative property for addition Use the equals sign to record equivalent number sentences	<b>Whole Numbers 1 MA1-4NA</b> Partition two-digit numbers using place value	<b>Addition and Subtraction 2 MA1-5NA</b> Make connections between addition and subtraction	<b>Multiplication and Division 1 MA1-6NA</b> Model and use equal 'groups of' objects as a strategy for multiplication <b>Multiplication and Division 2 MA1-6NA</b> Model and use arrays described in terms of 'rows' and 'columns' as a strategy for multiplication Model and use groups, arrays and repeated subtraction as strategies for division Record using drawings, words and numerals

## Stage 1 Content Clusters

### Content Cluster 3: Comparing quantities (using numbers, symbols and words)

<p><b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials Model and apply the commutative property for addition Record number sentences using drawings, words, numerals and the symbols +, – and =</p>	<p><b>Addition and Subtraction 2 MA1-5NA</b> Use and record a range of mental strategies for addition and subtraction of two-digit numbers Make connections between addition and subtraction</p>	<p><b>Multiplication and Division 1 MA1-6NA</b> Model division by sharing a collection equally into a given number of groups to determine the number in each group Model division by sharing a collection equally into groups of a given size to determine the number of groups <b>Multiplication and Division 2 MA1-6NA</b> Record using drawings, words and numerals</p>	<p><b>Fractions and Decimals 1 MA1-7NA</b> Use fraction notation <math>\frac{1}{2}</math> <b>Fractions and Decimals 2 MA1-7NA</b> Use fraction notation <math>\frac{1}{4}</math> and <math>\frac{1}{8}</math></p>
---	--	--	---

### Content Cluster 4: Trusting the count: Counting can start from numbers other than one (as a starting point for addition and subtraction)

<p><b>Whole Numbers 1 MA1-4NA</b> Count forwards and backwards by ones from a two-digit number <b>Whole Numbers 2 MA1-4NA</b> Count forwards and backwards by twos, threes, fives and tens from any starting point</p>	<p><b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials</p>	<p><b>Multiplication and Division 1 MA1-6NA</b> Rhythmic and skip count by twos, fives and tens from zero</p>	<p><b>Patterns and Algebra 2 MA1-8NA</b> Describe patterns with numbers and identify missing elements</p>
--	--	---	---

## Stage 1 Overview Clusters

### Content Cluster 5: Number Representations: Numbers can be represented by words/language, images/drawings, number

<p><b>Whole Numbers 1 MA1-4NA</b> Read, write and order two-digit numbers Read and use ordinal names to at least 'thirty-first'</p>	<p><b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials Record number sentences using drawings, words, numerals and the symbols +, – and = Use the equals sign to record equivalent number sentences</p> <p><b>Addition and Subtraction 2 MA1-5NA</b> Use and record a range of mental strategies for addition and subtraction of two-digit numbers</p>	<p><b>Multiplication and Division 2 MA1-6NA</b> Model and use groups, arrays and repeated subtraction as strategies for division Record using drawings, words and numerals</p>	<p><b>Patterns and Algebra 1 MA1-8NA</b> Recognise, copy, create, continue and describe repeating patterns of objects or symbols Model and describe odd and even numbers</p>
---	--	--	--

### Content Cluster 6: Partitioning: Numbers can be partitioned in multiple ways (part-whole number knowledge)

<p><b>Whole Numbers 1 MA1-4NA</b> Partition two-digit numbers using place value</p> <p><b>Whole Numbers 2 MA1-4NA</b> Partition numbers of up to three digits using place value</p>	<p><b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials Recognise and recall combinations of numbers that add to numbers up to 20 Model and apply the commutative property for addition</p> <p><b>Addition and Subtraction 2 MA1-5NA</b> Use and record a range of mental strategies for addition and subtraction of two-digit numbers</p>	<p><b>Multiplication and Division 1 MA1-6NA</b> Model division by sharing a collection equally into a given number of groups to determine the number in each group Model division by sharing a collection equally into groups of a given size to determine the number of groups</p> <p><b>Multiplication and Division 2 MA1-6NA</b> Model and use arrays described in terms of 'rows' and 'columns' as a strategy for multiplication Model and use groups, arrays and repeated subtraction as strategies for division</p>	<p><b>Fractions and Decimals 1 MA1-7NA</b> Recognise, describe and represent one-half as one of two equal parts of whole objects, shapes and collections</p> <p><b>Fractions and Decimals 2 MA1-7NA</b> Recognise, describe and represent halves, quarters and eighths of whole objects, shapes and collections</p>
---	---	---	---



## Stage 1 Content Clusters

### Content Cluster 7: Place Value: A number can be regrouped or renamed to aid in operating with the number (partitioning to operate with numbers)

<p><b>Whole Numbers 1 MA1-4NA</b> Partition two-digit numbers using place value</p> <p><b>Whole Numbers 2 MA1-4NA</b> Partition numbers of up to three digits using place value</p>	<p><b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials</p> <p>Model and apply the commutative property for addition</p> <p><b>Addition and Subtraction 2 MA1-5NA</b> Use and record a range of mental strategies for addition and subtraction of two-digit numbers</p> <p>Solve word problems involving addition and subtraction</p>	<p><b>Multiplication and Division 1 MA1-6NA</b> Model and use equal 'groups of' objects as a strategy for multiplication</p> <p>Model division by sharing a collection equally into a given number of groups to determine the number in each group</p> <p>Model division by sharing a collection equally into groups of a given size to determine the number of groups</p> <p><b>Multiplication and Division 2 MA1-6NA</b> Model and use groups, arrays and repeated subtraction as strategies for division</p>
---	--	---

### Content Cluster 8: Applies non-count-by-ones (as flexible arithmetic strategies)

<p><b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials</p> <p>Recognise and recall combinations of numbers that add to numbers up to 20</p> <p>Model and apply the commutative property for addition</p> <p>Use and record a range of mental strategies for addition and subtraction of one- and two-digit numbers</p>	<p><b>Whole Numbers 1 MA1-4NA</b> Partition two-digit numbers using place value</p>	<p><b>Addition and Subtraction 2 MA1-5NA</b> Make connections between addition and subtraction</p> <p>Use and record a range of mental strategies for addition and subtraction of two-digit numbers</p> <p>Solve word problems involving addition and subtraction</p>	<p><b>Multiplication and Division 2 MA1-6NA</b> Model and use repeated addition as a strategy for multiplication</p>	<p><b>Patterns and Algebra 2 MA1-8NA</b> Find missing numbers in number sentences involving one operation of addition or subtraction</p>
--	---	---	--	--

## Stage 1 Content Clusters

<b>Content Cluster 9: One ten is ten ones (number relationships, place value)</b>			
<b>Whole Numbers 1 MA1-4NA</b> Partition two-digit numbers using place value	<b>Addition and Subtraction 1 MA1-5NA</b> Recognise and recall combinations of numbers that add to numbers up to 20 Use and record a range of mental strategies for addition and subtraction of one- and two-digit numbers	<b>Addition and Subtraction 2 MA1-5NA</b> Use and record a range of mental strategies for addition and subtraction of two-digit numbers	<b>Patterns and Algebra 2 MA1-8NA</b> Find missing numbers in number sentences involving one operation of addition or subtraction
<b>Content Cluster 10: One hundred can be regrouped as ten tens, or, one hundred ones (number relationships, place value)</b>			
<b>Whole Numbers 2 MA1-4NA</b> Partition numbers of up to three digits using place value Read, write and order three-digit numbers	<b>Length 2 MA1-9MG</b> Recognise the need for formal units to measure length Use metres and centimetres to measure and estimate lengths and distances Record lengths using the abbreviations m and cm	<b>Position 2 MA1-16MG</b> Represent the position of objects in models, photographs and drawings	
<b>Content Cluster 11: Any number can be a countable unit e.g. counting by fives off the decade (e.g. relate to money)</b>			
<b>Whole Numbers 1 MA1-4NA</b> Recognise, describe and order Australian coins according to their value	<b>Whole Numbers 2 MA1-4NA</b> Count forwards and backwards by twos, threes, fives and tens from any starting point Recognise, count and order Australian coins and notes according to their value	<b>Multiplication and Division 1 MA1-6NA</b> Rhythmic and skip count by twos, fives and tens from zero	<b>Patterns and Algebra 2 MA1-8NA</b> Describe patterns with numbers and identify missing elements

## Stage 1 Content Clusters

### Content Cluster 12: Numbers can be represented using pairs to show odd and even

#### Patterns and Algebra 1 MA1-7NA

Model and describe odd and even numbers

#### Whole Numbers 2 MA1-4NA

Count forwards and backwards by twos, threes, fives and tens from any starting point

### Content Cluster 13: Patterns repeat or grow and the next number can be predicted (number structure)

#### Whole Numbers 1 MA1-4NA

Read, write and order two-digit numbers

Read and use ordinal names to at least 'thirty-first'

#### Whole Numbers 2 MA1-4NA

Count forwards and backwards by twos, threes, fives and tens from any starting point

#### Multiplication and Division 1 MA1-6NA

Rhythmic and skip count by twos, fives and tens from zero

#### Patterns and Algebra 1 MA1-8NA

Recognise, copy, continue, create and describe increasing and decreasing number patterns

Recognise, copy, create, continue and describe repeating patterns of objects or symbols

#### Patterns and Algebra 2 MA1-8NA

Describe patterns with numbers and identify missing elements

### Content Cluster 14: The 'equals sign' means 'the same as' (equality and inequality)

#### Addition and Subtraction 1 MA1-5NA

Record number sentences using drawings, words, numerals and the symbols +, – and =

Use the equals sign to record equivalent number sentences

Model and apply the commutative property for addition

#### Addition and Subtraction 2 MA1-5NA

Make connections between addition and subtraction

#### Patterns and Algebra 2 MA1-8NA

Find missing numbers in number sentences involving one operation of addition or subtraction

#### Mass 1 MA1-12MG

Place objects on either side of a pan balance to obtain a level balance

Use a pan balance to compare two objects based on mass

## Stage 1 Content Clusters

<b>Content Cluster 15: Array structure: Multiples can be visually represented in an array (structure of number)</b>			
<p><b>Multiplication and Division 1 MA1-6NA</b></p> <p>Rhythmic and skip count by twos, fives and tens from zero</p> <p>Model and use equal 'groups of' objects as a strategy for multiplication</p> <p>Model division by sharing a collection equally into a given number of groups to determine the number in each group</p> <p>Model division by sharing a collection equally into groups of a given size to determine the number of groups</p>	<p><b>Multiplication and Division 2 MA1-6NA</b></p> <p>Model and use repeated addition as a strategy for multiplication</p> <p>Multiplication and Division 2 MA1-6NA</p> <p>Model and use arrays described in terms of 'rows' and 'columns' as a strategy for multiplication</p> <p>Model and use groups, arrays and repeated subtraction as strategies for division</p>	<p><b>Patterns and Algebra 1 MA1-8NA</b></p> <p>Recognise, copy, create, continue and describe repeating patterns of objects or symbols</p>	<p><b>Area 1 MA1-10MG</b></p> <p>Use uniform informal units to measure and estimate areas</p> <p>Record areas by referring to the number and type of uniform informal unit used</p>
<b>Content Cluster 16: The 'for each' concept: For each one of these (how many rows) there are some of those (how much in each row) - multiplicative thinking</b>			
<p><b>Multiplication and Division 1 MA1-6NA</b></p> <p>Rhythmic and skip count by twos, fives and tens from zero</p> <p>Model and use equal 'groups of' objects as a strategy for multiplication</p> <p>Model division by sharing a collection equally into a given number of groups to determine the number in each group</p> <p>Model division by sharing a collection equally into groups of a given size to determine the number of groups</p>	<p><b>Multiplication and Division 2 MA1-6NA</b></p> <p>Model and use repeated addition as a strategy for multiplication</p> <p>Model and use arrays described in terms of 'rows' and 'columns' as a strategy for multiplication</p> <p>Model and use groups, arrays and repeated subtraction as strategies for division</p>	<p><b>Patterns and Algebra 1 MA1-8NA</b></p> <p>Recognise, copy, create, continue and describe repeating patterns of objects or symbols</p>	<p><b>Whole Numbers 2 MA1-4NA</b></p> <p>Count forwards and backwards by twos, threes, fives and tens from any starting point</p>

## Stage 1 Content Clusters

Content Cluster 17: Quantities can be estimated (how much/ how many) using counting					
<b>Length 1 MA1-9MG</b> Use uniform informal units to measure, compare and estimate lengths	<b>Area 1 MA1-10MG</b> Use uniform informal units to measure and estimate areas	<b>Volume and Capacity 1 MA1-11MG</b> Use uniform informal units to measure, compare and estimate capacities Use uniform informal units to measure and estimate volumes	<b>Mass MA1-12MG</b> Place objects on either side of a pan balance to obtain a level balance Use a pan balance to compare two objects based on mass <b>Mass 2 MA1-12MG</b> Use uniform informal units to measure, compare and estimate the masses of objects	<b>Multiplication and Division 2 MA1-6NA</b> Model and use repeated addition as a strategy for multiplication Model and use arrays described in terms of 'rows' and 'columns' as a strategy for multiplication	<b>Addition and Subtraction 1 MA1-5NA</b> Use and record a range of mental strategies for addition and subtraction of one- and two-digit numbers

Content Cluster 18: Benchmarks can be used to estimate quantity (how much/ how many)			
<b>Length 2 MA1-9MG</b> Compare and order shapes/objects based on length measured using uniform informal units	<b>Time 2 MA1-13MG</b> Experience activities with duration of one hour, half/quarter of an hour, one minute and a few seconds	<b>Fractions and Decimals 1 MA1-7NA</b> Recognise, describe and represent one-half as one of two equal parts of whole objects, shapes and collections Use fraction notation $1/2$ <b>Fractions and Decimals 2 MA1-7NA</b> Recognise, describe and represent halves, quarters and eighths of whole objects, shapes and collections Use fraction notation $1/4$ and $1/8$	<b>Addition and Subtraction 1 MA1-5NA</b> Use and record a range of mental strategies for addition and subtraction of one- and two-digit numbers

## Stage 1 Content Clusters

### Content Cluster 19: An object has attributes that can be measured using different processes

<p><b>Length 1 MA1-9MG</b> Use uniform informal units to measure, compare and estimate lengths</p> <p><b>Length 2 MA1-9MG</b> Record lengths by referring to the number and type of uniform informal unit used</p>	<p><b>Area 1 MA1-10MG</b> Use uniform informal units to measure and estimate areas</p> <p>Record areas by referring to the number and type of uniform informal unit used</p>	<p><b>Volume and Capacity 1 MA1-11MG</b> Use uniform informal units to measure, compare and estimate capacities</p> <p>Use uniform informal units to measure and estimate volumes by referring to the number and type of uniform informal unit used</p>	<p><b>Mass 2 MA1-12MG</b> Use uniform informal units to measure, compare and estimate the masses of objects</p> <p>Record masses by referring to the number and type of uniform informal unit used</p>	<p><b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials</p> <p>Use and record a range of mental strategies for addition and subtraction of one- and two-digit numbers</p>	<p><b>Multiplication and Division 2 MA1-6NA</b> Model and use arrays described in terms of 'rows' and 'columns' as a strategy for multiplication</p>	<p><b>Three-Dimensional Space 2 MA1-14MG</b> Represent three-dimensional objects in models and drawings</p>
--	--	---	--	--	--	---

### Content Cluster 20: Repeated units provide structure: Units of measurement can be iterated (no gaps or overlaps)

<p><b>Length 1 MA1-9MG</b> Use uniform informal units to measure, compare and estimate lengths</p> <p><b>Length 2 MA1-9MG</b> Record lengths by referring to the number and type of uniform informal unit used</p>	<p><b>Area 1 MA1-10MG</b> Use uniform informal units to measure and estimate areas</p> <p>Record areas by referring to the number and type of uniform informal unit used</p>	<p><b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials</p> <p>Use and record a range of mental strategies for addition and subtraction of one- and two-digit numbers</p> <p><b>Addition and Subtraction 2 MA1-5NA</b> Use and record a range of mental strategies for addition and subtraction of two-digit numbers</p>	<p><b>Multiplication and Division 1 MA1-6NA</b> Rhythmic and skip count by twos, fives and tens from zero</p> <p><b>Multiplication and Division 2 MA1-6NA</b> Model and use repeated addition as a strategy for multiplication</p> <p>Model and use arrays described in terms of 'rows' and 'columns' as a strategy for multiplication</p>	<p><b>Whole Numbers 2 MA1-4NA</b> Count forwards and backwards by twos, threes, fives and tens from any starting point</p>
--	--	---	--	--

## Stage 1 Content Clusters

### Content Cluster 21: Objects can be ordered based on (informal) units of measurement (e.g. size, quantity/number of cubes a container can hold)

<b>Whole Numbers 1 MA1-4NA</b> Read, write and order two-digit numbers	<b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials	<b>Length 2 MA1-9MG</b> Compare and order shapes/objects based on length measured using uniform informal units	<b>Area 2 MA1-10MG</b> Compare and order surfaces based on area measured using uniform informal units	<b>Volume 2 MA1-11MG</b> Compare and order objects based on capacity and volume measured using uniform informal units
---	--	---	--	--

### Content Cluster 22: Objects can be measured and compared using formal units

<b>Length 2 MA1-9MG</b> Recognise the need for formal units to measure length Use metres and centimetres to measure and estimate lengths and distances Record lengths using the abbreviations m and cm	<b>Addition and Subtraction 1 MA1-5NA</b> Use and record a range of mental strategies for addition and subtraction of one- and two-digit numbers
---	---

### Content Cluster 23: A fraction is a number that represents a relationship between parts and the whole (number relationships)

<b>Fractions and Decimals 1 MA1-7NA</b> Recognise, describe and represent one-half as one of two equal parts of whole objects, shapes and collections	<b>Fractions and Decimals 2 MA1-7NA</b> Recognise, describe and represent halves, quarters and eighths of whole objects, shapes and collections	<b>Time 2 MA1-13MG</b> Experience activities with duration of one hour, half/quarter of an hour, one minute and a few seconds	<b>Two-Dimensional Space 2 MA1-15MG</b> Identify, perform, describe and record the result of full, half and quarter 'turns'
--	--	--	--

## Stage 1 Content Clusters

**Content Cluster 24: Fractions are created through sharing - division (a fraction is less than one whole and that fractions are the result of dividing e.g sharing 2 biscuits among 4 people)**

<p><b>Fractions and Decimals 1 MA1-7NA</b> Recognise, describe and represent one-half as one of two equal parts of whole objects, shapes and collections Use fraction notation <math>1/2</math></p>	<p><b>Fractions and Decimals 2 MA1-7NA</b> Recognise, describe and represent halves, quarters and eighths of whole objects, shapes and collections Use fraction notation <math>1/4</math> and <math>1/8</math></p>	<p><b>Multiplication and Division 1 MA1-6NA</b> Model division by sharing a collection equally into a given number of groups to determine the number in each group Model division by sharing a collection equally into groups of a given size to determine the number of groups</p>	<p><b>Multiplication and Division 2 MA1-6NA</b> Model and use groups, arrays and repeated subtraction as strategies for division</p>
---	--	---	--

**Content Cluster 25: A fraction can be represented in many ways e.g as length, area, or a collection (continuous and discrete representations)**

<p><b>Fractions and Decimals 1 MA1-7NA</b> Recognise, describe and represent one-half as one of two equal parts of whole objects, shapes and collections Use fraction notation <math>1/2</math></p>	<p><b>Fractions and Decimals 2 MA1-7NA</b> Recognise, describe and represent halves, quarters and eighths of whole objects, shapes and collections Use fraction notation <math>1/4</math> and <math>1/8</math></p>	<p><b>Multiplication and Division 1 MA1-6NA</b> Model division by sharing a collection equally into a given number of groups to determine the number in each group</p>	<p><b>Length 2 MA1-9MG</b> Use metres and centimetres to measure and estimate lengths and distances Record lengths using the abbreviations m and cm</p>	<p><b>Time 2 MA1-13MG</b> Experience activities with duration of one hour, half/quarter of an hour, one minute and a few seconds</p>
---	--	--	---	--



## Stage 1 Content Clusters

### Content Cluster 26: Shape properties remain constant even when they are moved or reorientated (transforming shapes)

#### Three-Dimensional Space 1 MA1-14MG

Identify cones, cubes, cylinders, spheres and prisms presented in different orientations, in pictures and the environment  
Recognise that three-dimensional objects look different from different vantage-points

#### Two-Dimensional Space 1 MA1-15MG

Identify and name triangles, quadrilaterals, pentagons, hexagons and octagons presented in different orientations, in pictures and the environment

#### Two-Dimensional Space 2 MA1-15MG

Make and draw two-dimensional shapes in different orientations  
Identify, perform, describe and record the result of full, half and quarter 'turns'

### Content Cluster 27: Shapes and objects are classified based on properties (describing and comparing features)

#### Three-Dimensional Space 1 MA1-14MG

Distinguish between flat and curved surfaces  
Use the term 'faces' to describe flat surfaces with straight edges

#### Three-Dimensional Space 2 MA1-14MG

Use the terms 'flat surface', 'curved surface', 'face', 'edge' and 'vertex' appropriately to describe three-dimensional objects  
Recognise faces of three-dimensional objects as two-dimensional shapes  
Distinguish between three-dimensional objects and two-dimensional shapes  
Represent three-dimensional objects in models and drawings

#### Two-Dimensional Space 1 MA1-15MG

Identify horizontal, vertical and parallel lines  
Use the terms 'side' and 'vertex' to describe and compare two-dimensional shapes

### Content Cluster 28: Patterns can be created using shapes (copying, turning, flipping, sliding)

#### Two-Dimensional Space 1 MA1-15MG

Identify horizontal, vertical and parallel lines

#### Two-Dimensional Space 2 MA1-15MG

Make and draw two-dimensional shapes in different orientations  
Identify, perform and record the result of one-step 'slides' and 'flips'  
Make symmetrical designs with a variety of materials  
Identify, perform, describe and record the result of full, half and quarter 'turns'

#### Patterns and Algebra 1 MA1-8NA

Recognise, copy, create, continue and describe repeating patterns of objects or symbols

## Stage 1 Content Clusters

Content Cluster 29: Locating: Your position can be described in relation to other objects or landmarks			
<p><b>Position 1 MA1-16MG</b> Give and follow directions to move to familiar locations and to position objects Use the terms 'left' and 'right' to describe position in relation to self and from the perspective of a person facing in the opposite direction Describe a path from one location to another</p>	<p><b>Position 2 MA1-16MG</b> Interpret simple maps of familiar locations Represent the position of objects in models, photographs and drawings</p>	<p><b>Two-Dimensional Space 2 MA1-15MG</b> Make and draw two-dimensional shapes in different orientations</p>	<p><b>Three-Dimensional Space 2 MA1-14MG</b> Represent three-dimensional objects in models and drawings</p>
Content Cluster 30: Time can be measured in minutes and hours			
<p><b>Time 1 MA1-13MG</b> Tell time to the half-hour <b>Time 2 MA1-13MG</b> Experience activities with duration of one hour, half/quarter of an hour, one minute and a few seconds Tell time to the quarter-hour, using the language of 'past' and 'to'</p>	<p><b>Fractions and Decimals 1 MA1-7NA</b> Recognise, describe and represent one-half as one of two equal parts of whole objects, shapes and collections</p>	<p><b>Chance 1 MA1-18SP</b> Recognise the element of chance in familiar situations Describe chance events using everyday language <b>Chance 2 MA1-18SP</b> Identify practical activities and everyday events that involve chance Describe events as 'likely' or 'unlikely'</p>	
Content Cluster 31: Time (duration) can be visually represented in multiple ways e.g. calendars, clocks			
<p><b>Whole Numbers 1 MA1-4NA</b> Read and use ordinal names to at least 'thirty-first'</p>	<p><b>Time 1 MA1-13MG</b> Name and order months and seasons Use a calendar to identify the date and determine the number of days in each month</p>	<p><b>Time 2 MA1-13MG</b> Use a calendar to determine duration in months, weeks and days Use informal units to measure and compare the durations of events Experience activities with duration of one hour, half/quarter of an hour, one minute and a few seconds</p>	

## Stage 1 Content Clusters

Content Cluster 32: Information can be collected and represented using numbers			
<p><b>Data 1 MA1-17SP</b> Collect data and track what has been counted</p> <p><b>Data 2 MA1-17SP</b> Pose questions and collect categorical data</p>	<p><b>Whole Numbers 1 MA1-4NA</b> Count forwards and backwards by ones from a two-digit number</p>	<p><b>Addition and Subtraction 2 MA1-5NA</b> Solve word problems involving addition and subtraction</p>	<p><b>Addition and Subtraction 1 MA1-5NA</b> Model addition and subtraction using concrete materials</p> <p>Record number sentences using drawings, words, numerals and the symbols +, – and =</p>
Content Cluster 33: Information can be presented visually to convey meaning (data representations)			
<p><b>Data 1 MA1-17SP</b> Create data displays using objects and pictures (one-to-one correspondence) and interpret them</p>	<p><b>Data 2 MA1-17SP</b> Create data displays using lists, tables and picture graphs (one-to-one correspondence) and interpret them</p>	<p><b>Two-Dimensional Space 1 MA1-15MG</b> Identify horizontal, vertical and parallel lines</p>	
Content Cluster 34: Events can be measured and predicted based on chance			
<p><b>Chance 1 MA1-18SP</b> Recognise the element of chance in familiar situations</p> <p>Describe chance events using everyday language</p>	<p><b>Chance 2 MA1-18SP</b> Identify practical activities and everyday events that involve chance</p> <p>Describe events as 'likely' or 'unlikely'</p> <p>Distinguish between 'possible' and 'impossible' events</p> <p>Identify some events as 'certain' or 'impossible'</p>		<p><b>Time 2 MA1-13MG</b> Use informal units to measure and compare the durations of events</p>

## Stage 2 Content Clusters

<b>Content Cluster 1: Flexible counting (any number can be a countable unit)</b>			
<b>Whole Numbers 1 MA2-4NA</b> Count forwards and backwards by tens and hundreds from any starting point	<b>Addition and Subtraction 1 MA2-5NA</b> Perform calculations with money, including calculating equivalent amounts using different denominations	<b>Multiplication and Division 1 MA2-6NA</b> Recall multiplication facts for twos, threes, fives and tens	<b>Patterns and Algebra 1 MA2-8NA</b> Identify, continue, create, describe and record increasing and decreasing number patterns
<b>Content Cluster 2: Place value (numbers can be regrouped and renamed – partitioning)</b>			
<b>Whole Numbers 1 MA2-4NA</b> State the place value of digits in numbers of up to four digits	<b>Whole Numbers 2 MA2-4NA</b> State the place value of digits in numbers of up to five digits Record numbers of up to five digits using expanded notation	<b>Addition and Subtraction 1 MA2-5NA</b> Use and record a range of mental strategies for addition and subtraction of two-, three- and four-digit numbers Use the formal written algorithm for addition and subtraction	<b>Addition and Subtraction 2 MA2-5NA</b> Use and record a range of mental strategies for addition and subtraction of two-, three-, four- and five-digit numbers
<b>Content Cluster 3: Representing numbers (numbers can be represented and ordered based on their place value)</b>			
<b>Whole Numbers 1 MA2-4NA</b> Read, write and order numbers of up to four digits <b>Whole Numbers 2 MA2-4NA</b> Read, write and order numbers of up to five digits	<b>Fractions and Decimals 1 MA2-7NA</b> Model and represent fractions with denominators 2, 3, 4, 5 and 8 Count by halves, quarters and thirds, including with mixed numerals Represent fractions on number lines, including number lines that extend beyond 1	<b>Fractions and Decimals 2 MA2-7NA</b> Model and find equivalence between fractions with denominators 2, 4 and 8; 3 and 6; and 5, 10 and 100 Apply the place value system to represent tenths and hundredths as decimals	<b>Length 1 MA2-9MG</b> Use metres, centimetres and millimetres to measure, compare, order and estimate lengths

## Stage 2 Content Clusters

Content Cluster 4: Number representations (numbers can be represented by words/language, images/drawings, numbers/symbols)			
<p><b>Whole Numbers 1 MA2-4NA</b> Read, write and order numbers of up to four digits</p> <p><b>Whole Numbers 2 MA2-4NA</b> Read, write and order numbers of up to five digits</p>	<p><b>Addition and Subtraction 1 MA2-5NA</b> Model and apply the associative property for addition</p>	<p><b>Multiplication and Division 1 MA2-6NA</b> Recognise and use the symbols <math>\times</math> and <math>\div</math> Link multiplication and division using arrays Model and apply to commutative property for multiplication</p>	<p><b>Fractions and Decimals 1 MA2-7NA</b> Model and represent fractions with denominators 2, 3, 4, 5 and 8</p> <p><b>Fractions and Decimals 2 MA2-7NA</b> Model, compare and represent decimals with one and two decimal places</p>
Content Cluster 5: Comparing quantities – linear focus (numbers can be compared based on size and place value)			
<p><b>Fractions and Decimals 2 MA2-7NA</b> Make connections between fraction and decimal notation Model, compare and represent decimals with one and two decimal places Represent decimals on number lines</p>	<p><b>Length 1 MA2-9MG</b> Use metres, centimetres and millimetres to measure, compare, order and estimate lengths</p> <p><b>Length 2 MA2-9MG</b> Select and use appropriate scaled instruments and units to measure and compare lengths Convert between metres, centimetres and millimetres Record lengths and distances using decimal notation to two decimal places Use a scaled instrument to measure and compare temperatures</p>	<p><b>Time 2 MA2-13MG</b> Convert between seconds, minutes, hours and days</p>	<p><b>Volume and Capacity 1 MA2-11MG</b> Use litres to measure, compare and estimate capacities and volumes</p> <p><b>Volume and Capacity 2 MA2-11MG</b> Use litres and millilitres to measure, compare and estimate capacities and volumes</p>

## Stage 2 Content Clusters

Content Cluster 6: Comparing quantities – area/volume focus (numbers can be compared based on size and place value)			
<p><b>Fractions and Decimals 2 MA2-7NA</b></p> <p>Make connections between fraction and decimal notation</p> <p>Model, compare and represent decimals with one and two decimal places</p>	<p><b>Area 1 MA2-10MG</b></p> <p>Use square centimetres and square metres to measure and estimate rectangular (and square) areas</p> <p><b>Area 2 MA2-10MG</b></p> <p>Measure and compare the areas of regular and irregular shapes using a square-centimetre grid</p> <p>Compare areas measured in square centimetres and square metres</p>	<p><b>Volume and Capacity 1 MA2-11MG</b></p> <p>Use cubic centimetres to measure and compare volumes</p> <p><b>Volume and Capacity 2 MA2-11MG</b></p> <p>Compare volumes of objects by submerging each in water</p>	<p><b>Mass 1 MA2-12MG</b></p> <p>Use kilograms to measure, compare, order and estimate masses</p> <p><b>Mass 2 MA2-12MG</b></p> <p>Use kilograms and grams to measure and compare masses using a scaled instrument</p>
Content Cluster 7: Flexible strategies for operating with numbers (numbers can be partitioned to assist with computation)			
<p><b>Addition and Subtraction 1 MA2-5NA</b></p> <p>Use and record a range of mental strategies for addition and subtraction of two-, three- and four-digit numbers</p> <p>Perform calculations with money, including calculating equivalent amounts using different denominations</p> <p><b>Addition and Subtraction 2 MA2-5NA</b></p> <p>Use and record a range of mental strategies for addition and subtraction of two-, three-, four- and five-digit numbers</p>	<p><b>Multiplication and Division 1 MA2-6NA</b></p> <p>Use mental strategies to multiply one-digit numbers by multiples of 10</p> <p>Use and record a range of mental strategies for multiplication of two single-digit numbers</p> <p><b>Multiplication and Division 2 MA2-6NA</b></p> <p>Recall and use multiplication facts up to <math>10 \times 10</math> with automaticity</p> <p>Relate multiplication facts to their inverse division facts</p> <p>Use and record a range of mental and informal written strategies for multiplication and division of two-digit numbers by a one-digit operator</p> <p>Use mental strategies and informal recording methods for division with remainders</p>		

## Stage 2 Content Clusters

<b>Content Cluster 8: Partitioning: Part-whole number knowledge (numbers can be partitioned in multiple ways)</b>			
<b>Fractions and Decimals 1 MA2-7NA</b> Model and represent fractions with denominators 2, 3, 4, 5 and 8 Count by halves, quarters and thirds, including with mixed numerals	<b>Fractions and Decimals 2 MA2-7NA</b> Model and find equivalence between fractions with denominators 2, 4 and 8; 3 and 6; and 5, 10 and 100 Model, compare and represent decimals with one and two decimal places	<b>Multiplication and Division 2 MA2-6NA</b> Use mental strategies and informal recording methods for division with remainders	<b>Whole Numbers 2 MA2-4NA</b> Record numbers of up to five digits using expanded notation
<b>Content Cluster 9: Money uses a many-to-one scale</b>			
<b>Addition and Subtraction 1 MA2-5NA</b> Perform calculations with money, including calculating equivalent amounts using different denominations <b>Addition and Subtraction 2 MA2-5NA</b> Solve word problems, including those involving money	<b>Fractions and Decimals 2 MA2-7NA</b> Apply the place value system to represent tenths and hundredths as decimals	<b>Multiplication and Division 1 MA2-6NA</b> Use mental strategies to multiply one-digit numbers by multiples of 10	<b>Whole Numbers 1 MA2-4NA</b> Count forwards and backwards by tens and hundreds from any starting point
<b>Content Cluster 10: The 'equals sign' means "the same as" (equality and inequality)</b>			
<b>Addition and Subtraction 1 MA2-5NA</b> Model and apply the associative property for addition Use the equals sign to record equivalent number sentences <b>Addition and Subtraction 2 MA2-5NA</b> Use the inverse operation to check addition and subtraction calculations	<b>Multiplication and Division 1 MA2-6NA</b> Recognise and use the symbols $\times$ and $\div$ Model and apply to commutative property for multiplication <b>Multiplication and Division 2 MA2-6NA</b> Relate multiplication facts to their inverse division facts Use the equals sign to record equivalent number relationships involving multiplication	<b>Patterns and Algebra 2 MA2-8NA</b> Find missing numbers in number sentences involving addition or subtraction on one or both sides of the equals sign <b>Patterns and Algebra 2 MA2-8NA</b> Find missing numbers in number sentences involving one operation of multiplication or division	<b>Fractions and Decimals 2 MA2-7NA</b> Model and find equivalence between fractions with denominators 2, 4 and 8; 3 and 6; and 5, 10 and 100

## Stage 2 Content Clusters

### Content Cluster 11: Number relationships – converting (one thousand can be regrouped as 10 hundreds, 100 tens, or 1000 ones)

<p><b>Whole Numbers 2 MA2-4NA</b></p> <p>Record numbers of up to five digits using expanded notation</p>	<p><b>Length 1 MA2-9MG</b></p> <p>Use metres, centimetres and millimetres to measure, compare, order and estimate lengths</p> <p>Record lengths using the abbreviations m, cm and mm</p> <p><b>Length 2 MA2-9MG</b></p> <p>Convert between metres, centimetres and millimetres</p>	<p><b>Area 1 MA2-10MG</b></p> <p>Use square centimetres and square metres to measure and estimate rectangular (and square) areas</p> <p>Record lengths using the abbreviations cm<sup>2</sup> and m<sup>2</sup></p>	<p><b>Volume and Capacity 2 MA2-11MG</b></p> <p>Use litres and millilitres to measure, compare and estimate capacities and volumes</p> <p>Record capacities and volumes using the abbreviations L and mL</p> <p>Convert between litres and millilitres</p>	<p><b>Mass 2 MA2-12MG</b></p> <p>Use kilograms and grams to measure and compare masses using a scaled instrument</p> <p>Record masses using the abbreviations kg and g</p>
--	--	---	--	--

### Content Cluster 12: Numbers can be represented using pairs to explore odd and even properties

<p><b>Patterns and Algebra 1 MA2-8NA</b></p> <p>Identify odd and even numbers of up to four digits</p> <p><b>Patterns and Algebra 2 MA2-8NA</b></p> <p>Investigate and use the properties of odd and even numbers</p> <p>Recognise, continue and describe number patterns resulting from performing multiplication</p>	<p><b>Multiplication and Division 1 MA2-6NA</b></p> <p>Link multiplication and division using arrays</p> <p><b>Multiplication and Division 2 MA2-6NA</b></p> <p>Recall and use multiplication facts up to <math>10 \times 10</math> with automaticity</p> <p>Relate multiplication facts to their inverse division facts</p> <p>Determine multiples and factors of whole numbers</p>
--	--



## Stage 2 Content Clusters

Content Cluster 13: Patterns repeat or grow and future terms can be predicted (number structure)				
<p><b>Patterns and Algebra 1 MA2-8NA</b> Identify, continue, create, describe and record increasing and decreasing number patterns</p> <p><b>Patterns and Algebra 2 MA2-8NA</b> Recognise, continue and describe number patterns resulting from performing multiplication</p>	<p><b>Multiplication and Division 1 M2-6NA</b> Recall multiplication facts for twos, threes, fives and tens</p> <p>Link multiplication and division using arrays</p>	<p><b>Fractions and Decimals 1 MA2-7NA</b> Count by halves, quarters and thirds, including with mixed numerals</p>	<p><b>Whole Numbers 1 MA2-4NA</b> Count forwards and backwards by tens and hundreds from any starting point</p> <p>Read, write and order numbers of up to four digits</p> <p><b>Whole Numbers 2 MA2-4NA</b> Read, write and order numbers of up to five digits</p>	<p><b>Two-Dimensional Space 2 MA2-15MG</b> Use transformations to create and describe symmetrical designs</p> <p>Create and record tessellating designs</p>

Content Cluster 14: Multiples can be visually represented as an array (number structure)				
<p><b>Multiplication and Division 1 MA2-6NA</b> Link multiplication and division using arrays</p> <p>Model and apply to commutative property for multiplication</p> <p>Use mental strategies to multiply one-digit numbers by multiples of 10</p>	<p><b>Multiplication and Division 2 MA2-6NA</b> Relate multiplication facts to their inverse division facts</p> <p>Determine multiples and factors of whole numbers</p> <p>Use and record a range of mental and informal written strategies for multiplication and division of two-digit numbers by a one-digit operator</p> <p>Use mental strategies and informal recording methods for division with remainders</p>	<p><b>Area 1 MA2-10MG</b> Use square centimetres and square metres to measure and estimate rectangular (and square) areas</p> <p><b>Area 2 MA2-10MG</b> Measure and compare the areas of regular and irregular shapes using a square-centimetre grid</p>	<p><b>Volume and Capacity 1 MA2-11MG</b> Use cubic centimetres to measure and compare volumes</p>	<p><b>Patterns and Algebra 2 MA2-8NA</b> Recognise, continue and describe number patterns resulting from performing multiplication</p>

## Stage 2 Content Clusters

### Content Cluster 15: The 'for each' concept – for each of these (how many rows), there are some of those (how much in each row)

<p><b>Multiplication and Division 1 MA2-6NA</b> Link multiplication and division using arrays Model and apply to commutative property for multiplication</p>	<p><b>Multiplication and Division 2 MA2-6NA</b> Determine multiples and factors of whole numbers</p>	<p><b>Patterns and Algebra 2 MA2-8NA</b> Recognise, continue and describe number patterns resulting from performing multiplication</p>
--	--	--

### Content Cluster 16: A fraction is a number that represents a relationship between parts and the whole

<p><b>Fractions and Decimals 1 MA2-7NA</b> Count by halves, quarters and thirds, including with mixed numerals Represent fractions on number lines, including number lines that extend beyond 1</p>	<p><b>Fractions and Decimals 2 MA2-7NA</b> Apply the place value system to represent tenths and hundredths as decimals Make connections between fraction and decimal notation Represent decimals on number lines</p>	<p><b>Angles 1 MA2-16MG</b> Identify and describe angles as measures of turn</p>	<p><b>Whole Numbers 2 MA2-4NA</b> Record numbers of up to five digits using expanded notation</p>
---	--	--	---

### Content Cluster 17: Fractions represent division (number relationships)

<p><b>Fractions and Decimals 1 MA2-7NA</b> Model and represent fractions with denominators 2, 3, 4, 5 and 8</p>	<p><b>Fractions and Decimals 2 MA2-7NA</b> Model and find equivalence between fractions with denominators 2, 4 and 8; 3 and 6; and 5, 10 and 100</p>	<p><b>Multiplication and Division 1 MA2-6NA</b> Recall multiplication facts for twos, threes, fives and tens Link multiplication and division using arrays</p>	<p><b>Multiplication and Division 2 MA2-6NA</b> Relate multiplication facts to their inverse division facts Use mental strategies and informal recording methods for division with remainders</p>
---	--	--	---

## Stage 2 Content Clusters

<b>Content Cluster 18: Time can be measured in hours, minutes and seconds (links to fractional language)</b>			
<p><b>Time 1MA2-13MG</b></p> <p>Recognise the coordinated movements of the hands on a clock</p> <p>Read and record time to the minute, using digital notation and the terms 'past' and 'to'</p>	<p><b>Time 2 MA2-13MG</b></p> <p>Convert between seconds, minutes, hours and days</p> <p>Use and interpret am and pm notation</p>	<p><b>Fractions and Decimals 1 MA2-7NA</b></p> <p>Model and represent fractions with denominators 2, 3, 4, 5 and 8</p> <p>Count by halves, quarters and thirds, including with mixed numerals</p>	<p><b>Angles 1 MA2-16MG</b></p> <p>Identify and describe angles as measures of turn</p> <p>Compare angle sizes in everyday situations</p>
<b>Content Cluster 19: Duration can be calculated using units of time</b>			
<p><b>Time 1MA2-13MG</b></p> <p>Read and record time to the minute, using digital notation and the terms 'past' and 'to'</p>	<p><b>Time 2 MA2-13MG</b></p> <p>Convert between seconds, minutes, hours and days</p> <p>Use and interpret am and pm notation</p>	<p><b>Addition and Subtraction 1 MA2-5NA</b></p> <p>Use and record a range of mental strategies for addition and subtraction of two-, three- and four-digit numbers</p>	<p><b>Multiplication and Division 2 MA2-6NA</b></p> <p>Use and record a range of mental and informal written strategies for multiplication and division of two-digit numbers by a one-digit operator</p>
<b>Content Cluster 20: Time can be represented in multiple ways (e.g. calendars, timelines, timetables)</b>			
<p><b>Time 1MA2-13MG</b></p> <p>Recognise the coordinated movements of the hands on a clock</p> <p>Read and record time to the minute, using digital notation and the terms 'past' and 'to'</p>	<p><b>Time 2 MA2-13MG</b></p> <p>Convert between seconds, minutes, hours and days</p> <p>Use and interpret am and pm notation</p>	<p><b>Fractions and Decimals 1 MA2-7NA</b></p> <p>Model and represent fractions with denominators 2, 3, 4, 5 and 8</p> <p>Count by halves, quarters and thirds, including with mixed numerals</p>	<p><b>Whole Numbers 1 MA2-4NA</b></p> <p>State the place value of digits in numbers of up to four digits</p> <p>Read, write and order numbers of up to four digits</p>

## Stage 2 Content Clusters

### Content Cluster 21: Measurements are approximations and can be represented using formal units

<p><b>Length 1 MA2-9MG</b> Record lengths using the abbreviations m, cm and mm</p> <p><b>Length 2 MA2-9MG</b> Select and use appropriate scaled instruments and units to measure and compare lengths Record temperatures using the symbol for degrees (°)</p>	<p><b>Area 1 MA2-10MG</b> Recognise the need for formal units to measure area Record lengths using the abbreviations cm<sup>2</sup> and m<sup>2</sup></p>	<p><b>Volume and Capacity 1 MA2-11MG</b> Recognise the need for formal units to measure capacity and volume Record capacities and volumes using the abbreviations L and cm<sup>3</sup></p> <p><b>Volume and Capacity 2 MA2-11MG</b> Record capacities and volumes using the abbreviations L and mL</p>	<p><b>Mass 1 MA2-12MG</b> Recognise the need for formal units to measure mass Record masses using the abbreviation kg</p>
---	---	--	---

### Content Cluster 22: Benchmark numbers can be used to estimate quantities (how much/how many)

<p><b>Length 1 MA2-9MG</b> Use metres, centimetres and millimetres to measure, compare, order and estimate lengths</p> <p><b>Length 2 MA2-9MG</b> Estimate and measure perimeters of two-dimensional shapes</p>	<p><b>Area 1 MA2-10MG</b> Use square centimetres and square metres to measure and estimate rectangular (and square) areas</p>	<p><b>Volume and Capacity 1 MA2-11MG</b> Use litres to measure, compare and estimate capacities and volumes</p> <p><b>Volume and Capacity 2 MA2-11MG</b> Use litres and millilitres to measure, compare and estimate capacities and volumes</p>	<p><b>Mass 1 MA2-12MG</b> Use kilograms to measure, compare, order and estimate masses</p>
---	---	---	--

## Stage 2 Content Clusters

Content Cluster 23: Numbers and quantities can be compared using scale (links to proportionality)				
<p><b>Addition and Subtraction 1 MA2-5NA</b></p> <p>Use and record a range of mental strategies for addition and subtraction of two-, three- and four-digit numbers</p>	<p><b>Length 1 MA2-9MG</b></p> <p>Use metres, centimetres and millimetres to measure, compare, order and estimate lengths</p> <p><b>Length 2 MA2-9MG</b></p> <p>Convert between metres, centimetres and millimetres</p>	<p><b>Position 1 MA2-17MG</b></p> <p>Draw simple maps, with and without a grid</p> <p><b>Position 2 MA2-17MG</b></p> <p>Interpret legends and directions on maps</p> <p>Use the scale to calculate the distance between two points on maps</p>	<p><b>Data 1 MA2-18SP</b></p> <p>Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs (one-to-one correspondence)</p> <p><b>Data 2 MA2-18SP</b></p> <p>Construct data displays, including tables, and column graphs and picture graphs of many-to-one correspondence</p>	<p><b>Time 2 MA2-13MG</b></p> <p>Read and interpret simple timetables, timelines and calendars</p>

Content Cluster 24: Objects can be measured and compared through different representations			
<p><b>Three-dimensional Space 1 MA2-14MG</b></p> <p>Make models of three-dimensional objects</p> <p>Create nets from everyday packages</p>	<p><b>Three-Dimensional Space 2 MA2-14MG</b></p> <p>Represent three-dimensional objects in drawings showing depth</p> <p>Sketch three-dimensional objects from different views</p> <p>Interpret and make drawings of objects on isometric grid paper</p>	<p><b>Volume and Capacity 1 MA2-11MG</b></p> <p>Use cubic centimetres to measure and compare volumes</p>	<p><b>Multiplication and Division 2 MA2-6NA</b></p> <p>Use and record a range of mental and informal written strategies for multiplication and division of two-digit numbers by a one-digit operator</p>

## Stage 2 Content Clusters

Content Cluster 25: Shapes can be measured and compared through different representations				
<b>Two-Dimensional Space 1 MA2-15MG</b> Combine common shapes to form other shapes and record the arrangement Split common shapes into other shapes and record the result	<b>Position 1 MA2-17MG</b> Use grid-referenced maps to locate and describe positions and pathways Draw simple maps, with and without a grid	<b>Area 2 MA2-10MG</b> Measure and compare the areas of regular and irregular shapes using a square-centimetre grid Compare areas measured in square centimetres and square metres	<b>Length 2 MA2-9MG</b> Estimate and measure perimeters of two-dimensional shapes	<b>Angles 1 MA2-16MG</b> Compare angle sizes in everyday situations

Content Cluster 26: Shape properties remain constant even when they are moved or reorientated (transforming shapes)			
<b>Three-Dimensional Space 1 MA2-14MG</b> Identify, describe and compare features of prisms, pyramids, cylinders, cones and spheres	<b>Three-Dimensional Space 2 MA2-14MG</b> Sketch three-dimensional objects from different views Interpret and make drawings of objects on isometric grid paper	<b>Two-Dimensional Space 1 MA2-15MG</b> Identify and name the special quadrilaterals presented in different orientations Identify and describe shapes as 'regular' or 'irregular' Describe and compare features of shapes, including the special quadrilaterals	<b>Two-Dimensional Space 2 MA2-15MG</b> Use transformations to create and describe symmetrical designs Create and record tessellating designs

## Stage 2 Content Clusters

### Content Cluster 27: Shapes and objects are classified based on properties (comparing features)

#### Three-Dimensional Space 1 MA2-14MG

Identify, describe and compare features of prisms, pyramids, cylinders, cones and spheres

#### Two-Dimensional Space 1 MA2-15MG

Identify and name the special quadrilaterals presented in different orientations

Identify and describe shapes as 'regular' or 'irregular'

Describe and compare features of shapes, including the special quadrilaterals

Identify and draw lines of symmetry on shapes

#### Angles 1 MA2-16MG

Identify 'perpendicular' lines and 'right angles'

#### Angles 2 MA2-16MG

Draw and classify angles as acute, obtuse, straight, reflex or a revolution

### Content Cluster 28: Patterns can be created using shapes (copying, rotating, translating and reflecting)

#### Patterns and Algebra 1 MA2-8NA

Identify, continue, create, describe and record increasing and decreasing number patterns

#### Patterns and Algebra 2 MA2-8NA

Recognise, continue and describe number patterns resulting from performing multiplication

#### Two-Dimensional Space 1 MA2-15MG

Identify and draw lines of symmetry on shapes

#### Two-Dimensional Space 2 MA2-15MG

Combine common shapes to form other shapes and record the arrangement

Split common shapes into other shapes and record the result

Use transformations to create and describe symmetrical designs

Create and record tessellating designs

#### Angles 1 MA2-16MG

Identify 'perpendicular' lines and 'right angles'

#### Angles 2 MA2-16MG

Draw and classify angles as acute, obtuse, straight, reflex or a revolution

## Stage 2 Content Clusters

### Content Cluster 29: Locating and positioning is based on references (to points or one's self)

#### Position 1 MA2-17MG

Use grid-referenced maps to locate and describe positions and pathways  
Draw simple maps, with and without a grid

#### Position 2 MA2-17MG

Determine directions N, E, S, W and NE, SE, SW, NW, given one of the directions  
Interpret legends and directions on maps

#### Two-Dimensional Space 1 MA2-15MG

Identify and name the special quadrilaterals presented in different orientations

#### Three-Dimensional Space 2 MA2-14MG

Sketch three-dimensional objects from different views

### Content Cluster 30: Information can be collected, represented and analysed using numbers (collecting data)

#### Data 1 MA2-18SP

Plan methods for data collection  
Interpret and compare data displays

#### Data 2 MA2-18SP

Select, trial and refine methods for data collection, including survey questions and recording sheets  
Evaluate the effectiveness of different displays

#### Chance 1 MA2-19SP

Identify and describe possible 'outcomes' of chance experiments  
Predict and record all possible combinations in a chance situation  
Conduct chance experiments and compare predicted with actual results

#### Addition and Subtraction 2 MA2-5NA

Use and record a range of mental strategies for addition and subtraction of two-, three-, four- and five-digit numbers

### Content Cluster 31: Information can be presented visually to convey meaning (data representations)

#### Data 1 MA2-18SP

Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs (one-to-one correspondence)

#### Data 2 MA2-18SP

Construct data displays, including tables, and column graphs and picture graphs of many-to-one correspondence

#### Chance 1 MA2-19SP

Conduct chance experiments and compare predicted with actual results

#### Angles 1 MA2-16MG

Identify 'perpendicular' lines and 'right angles'

#### Length 2 MA2-9MG

Select and use appropriate scaled instruments and units to measure and compare lengths



## Stage 2 Content Clusters

Content Cluster 32: Events can be predicted, measured, and discussed based on chance			
<p><b>Chance 1 MA2-19SP</b> Conduct chance experiments and compare predicted with actual results</p>	<p><b>Chance 2 MA2-19SP</b> Describe possible everyday events and order their chances of occurring Identify everyday events where one occurring cannot happen if the other happens Identify events where the chance of one occurring will not be affected by the occurrence of the other</p>	<p><b>Data 2 MA2-18SP</b> Select, trial and refine methods for data collection, including survey questions and recording sheets</p>	<p><b>Addition and Subtraction 1 MA2-5NA</b> Use and record a range of mental strategies for addition and subtraction of two-, three- and four-digit numbers</p>

## Stage 3 Content Clusters

### Content Cluster 1: Place value (numbers can be regrouped and renamed – partitioning)

<p><b>Whole Numbers 1 MA3-4NA</b> State the place value of digits in numbers of any size Record numbers of any size using expanded notation</p> <p><b>Whole Numbers 2 MA3-4NA</b> Identify and describe prime and composite numbers</p>	<p><b>Fractions and Decimals 1 MA3-7NA</b> Apply the place value system to represent thousandths as decimals Express mixed numerals as improper fractions and vice versa</p>	<p><b>Fractions and Decimals 2 MA3-7NA</b> Multiply and divide decimals by 10, 100 and 1000 Write fractions in their 'simplest form'</p>
---	--	--

### Content Cluster 2: Representing numbers (numbers can be represented, ordered and compared based on their place value)

<p><b>Whole Numbers 1 MA3-4NA</b> Read, write and order numbers of any size</p> <p><b>Whole Numbers 2 MA3-4NA</b> Recognise the location of negative numbers in relation to zero on a number line</p>	<p><b>Fractions and Decimals 1 MA3-7NA</b> Compare and order unit fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100 Compare, order and represent decimals with up to three decimal places</p>	<p><b>Fractions and Decimals 2 MA3-7NA</b> Represent, compare and order fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100</p>	<p><b>Length 2 MA3-9MG</b> Record lengths and distances using decimal notation to three decimal places</p>	<p><b>Volume and Capacity 2 MA3-11MG</b> Record volumes and capacities using decimal notation to three decimal places</p>	<p><b>Mass 2 MA3-12MG</b> Record mass using decimal notation to three decimal places</p>
---	--	--	--	---	--

## Stage 3 Content Clusters

Content Cluster 3: Comparing quantities – linear focus (numbers can be compared based on size and place value)				
<b>Fractions and Decimals 1 MA3-7NA</b> Compare and order unit fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100 Compare, order and represent decimals with up to three decimal places	<b>Length 1 MA3-9MG</b> Use the kilometre to measure lengths and distances Select and use appropriate instruments and units to measure lengths Record lengths and distances using the abbreviations km, m, cm and mm	<b>Length 2 MA3-9MG</b> Record lengths and distances using decimal notation to three decimal places Convert between kilometres, metres, centimetres and millimetres	<b>Volume and Capacity 2 MA3-11MG</b> Record volumes and capacities using decimal notation to three decimal places Convert between millilitres and litres	<b>Time 1MA3-13MG</b> Convert between 12- and 24-hour time
Content Cluster 4: Comparing quantities – area/volume/mass focus (numbers can be compared based on size and place value)				
<b>Fractions and Decimals 1 MA3-7NA</b> Compare and order unit fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100 Compare, order and represent decimals with up to three decimal places	<b>Area 1 MA3-10MG</b> Recognise the need for square kilometres and hectares to measure area Record areas using the abbreviations km <sup>2</sup> and ha	<b>Volume and Capacity 1 MA3-11MG</b> Use cubic centimetres and cubic metres to measure and estimate volumes Select and use appropriate units to measure volume Record volumes using the abbreviations cm <sup>3</sup> and m <sup>3</sup>	<b>Mass 1 MA3-12MG</b> Recognise the need for tonnes to measure mass Record masses using the abbreviations t, kg and g Select and use appropriate instruments and units to measure mass Solve problems involving mass <b>Mass 2 MA3-12MG</b> Record mass using decimal notation to three decimal places Convert between tonnes, kilograms and grams	

## Stage 3 Content Clusters

Content Cluster 5: Partitioning: Part-whole number knowledge (numbers can be partitioned in multiple ways)			
<p><b>Whole Numbers 1 MA3-4NA</b> Record numbers of any size using expanded notation</p> <p><b>Whole Numbers 2 MA3-4NA</b> Identify and describe prime and composite numbers</p>	<p><b>Fractions and Decimals 1 MA3-7NA</b> Compare and order unit fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100</p> <p>Express mixed numerals as improper fractions and vice versa</p>	<p><b>Fractions and Decimals 2 MA3-7NA</b> Represent, compare and order fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100</p> <p>Write fractions in their 'simplest form'</p>	<p><b>Multiplication and Division 1 MA3-6NA</b> Use and record a range of mental and written strategies to divide numbers with three or more digits by a one-digit operator, including problems that result in a remainder</p>
Content Cluster 6: Flexible strategies for operating with numbers (numbers can be partitioned to assist with computation)			
<p><b>Addition and Subtraction 1 MA3-5NA</b> Select and apply efficient mental, written and calculator strategies for addition and subtraction of numbers of any size</p>	<p><b>Multiplication and Division 1 MA3-6NA</b> Use and record a range of mental and written strategies to multiply by one- and two-digit operators</p> <p>Use and record a range of mental and written strategies to divide numbers with three or more digits by a one-digit operator, including problems that result in a remainder</p>	<p><b>Fractions and Decimals 1 MA3-7NA</b> Model and represent strategies to add and subtract fractions with the same denominator</p> <p><b>Fractions and Decimals 2 MA3-7NA</b> Add and subtract fractions, included mixed numerals, with the same or related denominators</p> <p>Use mental, written and calculator strategies to add and subtract decimals with up to three decimal places</p> <p>Use mental, written and calculator strategies to multiply decimals by one- and two-digit whole numbers</p> <p>Use mental, written and calculator strategies to divide decimals by one-digit whole numbers</p>	

## Stage 3 Content Clusters

### Content Cluster 7: A variety of strategies can be applied to solve word problems

<p><b>Addition and Subtraction 1 MA3-5NA</b></p> <p>Solve word problems and record the strategy used, including problems involving money</p>	<p><b>Addition and Subtraction 2 MA3-5NA</b></p> <p>Select and apply efficient mental, written and calculator strategies to solve word problems and record the strategy used</p>	<p><b>Multiplication and Division 1 MA3-6NA</b></p> <p>Solve word problems and record the strategy used</p> <p><b>Multiplication and Division 2 MA3-6NA</b></p> <p>Select and apply efficient mental, written and calculator strategies to solve word problems and record the strategy used</p>	<p><b>Fractions and Decimals 2 MA3-7NA</b></p> <p>Solve word problems involving fractions and decimals, including money problems</p>
--	--	---	--

### Content Cluster 8: Multiples can be visually represented as an array ('for each' number structure)

<p><b>Multiplication and Division 1 MA3-6NA</b></p> <p>Use and record a range of mental and written strategies to multiply by one- and two-digit operators</p> <p>Use and record a range of mental and written strategies to divide numbers with three or more digits by a one-digit operator, including problems that result in a remainder</p>	<p><b>Multiplication and Division 2 MA3-6NA</b></p> <p>Select and apply efficient mental, written and calculator strategies to solve word problems and record the strategy used</p>	<p><b>Area 1 MA3-10MG</b></p> <p>Develop a strategy to find areas of rectangles (including squares) and record the strategy in words</p> <p><b>Area 2 MA3-10MG</b></p> <p>Develop a strategy to find areas of triangles and record the strategy in words</p>	<p><b>Volume and Capacity 2 MA3-11MG</b></p> <p>Develop a strategy to find volumes of rectangular prisms and record the strategy in words</p>	<p><b>Patterns and Algebra 2 MA3-8NA</b></p> <p>Continue, create, record and describe geometric and number patterns in words</p>
--	---	--	---	--

## Stage 3 Content Clusters

Content Cluster 9: Reasonableness of solutions can be checked using estimation			
<b>Addition and Subtraction 1 MA3-5NA</b> Use estimation to check answers to calculations Solve word problems and record the strategy used, including problems involving money	<b>Multiplication and Division 1 MA3-6NA</b> Solve word problems and record the strategy used Use estimation to check answers to calculations	<b>Multiplication and Division 2 MA3-6NA</b> Select and apply efficient mental, written and calculator strategies to solve word problems and record the strategy used	<b>Fractions and Decimals 2 MA3-7NA</b> Solve word problems involving fractions and decimals, including money problems

Content Cluster 10: Benchmark numbers can be used to estimate quantities (how much/how many)				
<b>Addition and Subtraction 1 MA3-5NA</b> Use estimation to check answers to calculations	<b>Multiplication and Division 1 MA3-6NA</b> Solve word problems and record the strategy used Use estimation to check answers to calculations	<b>Fractions and Decimals 2 MA3-7NA</b> Make connections between equivalent percentages, fractions and decimals	<b>Volume and Capacity 1 MA3-11MG</b> Use cubic centimetres and cubic metres to measure and estimate volumes Select and use appropriate units to measure volume	<b>Angles 1 MA3-16MG</b> Measure, compare and estimate angles in degrees (up to 360°) Record angle measurements using the symbol for degrees (°)

## Stage 3 Content Clusters

Content Cluster 11: Number relationships – converting (e.g. one thousand can be regrouped as 10 hundreds, 100 tens, or 1000 ones)					
<b>Whole Numbers 1 MA3-4NA</b> Read, write and order numbers of any size State the place value of digits in numbers of any size Record numbers of any size using expanded notation	<b>Time 1MA3-13MG</b> Convert between 12- and 24-hour time Determine and compare the duration of events	<b>Fractions and Decimals 1 MA3-7NA</b> Apply the place value system to represent thousandths as decimals <b>Fractions and Decimals 2 MA3-7NA</b> Multiply and divide decimals by 10, 100 and 1000	<b>Length 2 MA3-9MG</b> Convert between kilometres, metres, centimetres and millimetres	<b>Volume and Capacity 2 MA3-11MG</b> Convert between millilitres and litres	<b>Mass 2 MA3-12MG</b> Convert between tonnes, kilograms and grams
Content Cluster 12: Money uses a many-to-one scale (link to place value e.g. 100 cents is equal to \$1)					
<b>Addition and Subtraction 1 MA3-5NA</b> Solve word problems and record the strategy used, including problems involving money Create a simple budget	<b>Multiplication and Division 1 MA3-6NA</b> Solve word problems and record the strategy used Interpret remainders in division problems	<b>Fractions and Decimals 2 MA3-7NA</b> Solve word problems involving fractions and decimals, including money problems Use mental, written and calculator strategies to calculate 10%, 25% and 50% of quantities, including as discounts			
Content Cluster 13: The 'equals sign' means "the same as" (equality and inequality)					
<b>Multiplication and Division 2 MA3-6NA</b> Recognise and use grouping symbols Apply the order of operations in calculations	<b>Patterns and Algebra 1 MA3-8NA</b> Find missing numbers in number sentences involving multiplication or division on one or both sides of the equals sign	<b>Fractions and Decimals 2 MA3-7NA</b> Determine, generate and record equivalent fractions Make connections between equivalent percentages, fractions and decimals			

## Stage 3 Content Clusters

### Content Cluster 14: Numbers can be represented using pairs to explore odd and even properties

#### Patterns and Algebra 1 MA3-8NA

Identify, continue create and describe increasing and decreasing number patterns with fractions, decimals and whole numbers

#### Whole Numbers 1 MA3-4NA

Determine factors and multiples of whole numbers

#### Whole Numbers 2 MA3-4NA

Identify and describe prime and composite numbers

Model and describe square and triangular numbers

### Content Cluster 15: Patterns repeat or grow and future terms can be predicted (number structure)

#### Patterns and Algebra 1 MA3-8NA

Identify, continue create and describe increasing and decreasing number patterns with fractions, decimals and whole numbers

#### Multiplication and Division 1 MA3-6NA

Use and record a range of mental and written strategies to multiply by one- and two-digit operators

#### Fractions and Decimals 1 MA3-7NA

Model and represent strategies to add and subtract fractions with the same denominator

#### Fractions and Decimals 2 MA3-7NA

Use mental, written and calculator strategies to add and subtract decimals with up to three decimal places

Use mental, written and calculator strategies to multiply decimals by one- and two-digit whole numbers

Use mental, written and calculator strategies to divide decimals by one-digit whole numbers

#### Whole Numbers 1 MA3-4NA

Read, write and order numbers of any size

#### Whole Numbers 2 MA3-4NA

Model and describe square and triangular numbers

#### Addition and Subtraction 1 MA3-5NA

Select and apply efficient mental, written and calculator strategies for addition and subtraction of numbers of any size



## Stage 3 Content Clusters

Content Cluster 16: Patterns can be represented geometrically				
<p><b>Patterns and Algebra 2 MA3-8NA</b></p> <p>Continue, create, record and describe geometric and number patterns in words</p> <p>Determine the rule for geometric and number patterns in words and use the rule to calculate values</p>	<p><b>Multiplication and Division 1 MA3-6NA</b></p> <p>Use and record a range of mental and written strategies to multiply by one- and two-digit operators</p>	<p><b>Two-Dimensional Space 1 MA3-15MG</b></p> <p>Classify and draw regular and irregular two-dimensional shapes from descriptions of their features</p> <p>Use the terms 'translate', 'reflect' and 'rotate' to describe transformations of shapes</p> <p><b>Two-Dimensional Space 2 MA3-15MG</b></p> <p>Identify, use and describe combinations of translations, reflections and rotations</p>	<p><b>Whole Numbers 1 MA3-4NA</b></p> <p>Read, write and order numbers of any size</p> <p><b>Whole Numbers 2 MA3-4NA</b></p> <p>Model and describe square and triangular numbers</p>	<p><b>Addition and Subtraction 1 MA3-5NA</b></p> <p>Select and apply efficient mental, written and calculator strategies for addition and subtraction of numbers of any size</p>
Content Cluster 17: A fraction is a number (that represents a relationship between parts and the whole)				
<p><b>Fractions and Decimals 1 MA3-7NA</b></p> <p>Compare and order unit fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100</p> <p>Express mixed numerals as improper fractions and vice versa</p>	<p><b>Fractions and Decimals 2 MA3-7NA</b></p> <p>Represent, compare and order fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100</p> <p>Determine, generate and record equivalent fractions</p> <p>Write fractions in their 'simplest form'</p> <p>Make connections between equivalent percentages, fractions and decimals</p>		<p><b>Whole Numbers 2 MA3-4NA</b></p> <p>Read, write and order numbers of any size</p> <p>State the place value of digits in numbers of any size</p> <p>Record numbers of any size using expanded notation</p>	

## Stage 3 Content Clusters

Content Cluster 18: Fractions represent division (number relationships)			
<p><b>Fractions and Decimals 1 MA3-7NA</b></p> <p>Compare and order unit fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100</p> <p>Express mixed numerals as improper fractions and vice versa</p>	<p><b>Fractions and Decimals 2 MA3-7NA</b></p> <p>Represent, compare and order fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100</p> <p>Determine, generate and record equivalent fractions</p> <p>Write fractions in their 'simplest form'</p>	<p><b>Multiplication and Division 1 MA3-6NA</b></p> <p>Use and record a range of mental and written strategies to divide numbers with three or more digits by a one-digit operator, including problems that result in a remainder</p> <p>Interpret remainders in division problems</p>	<p><b>Patterns and Algebra 1 MA3-8NA</b></p> <p>Identify, continue create and describe increasing and decreasing number patterns with fractions, decimals and whole numbers</p>
Content Cluster 19: Fractions as a measure			
<p><b>Fractions and Decimals 1 MA3-7NA</b></p> <p>Model and represent strategies to add and subtract fractions with the same denominator</p> <p><b>Fractions and Decimals 2 MA3-7NA</b></p> <p>Add and subtract fractions, included mixed numerals, with the same or related denominators</p>	<p><b>Length 1 MA3-9MG</b></p> <p>Record lengths and distances using the abbreviations km, m, cm and mm</p> <p>Find perimeters of common two-dimensional shapes and record the strategy</p> <p><b>Length 2 MA3-9MG</b></p> <p>Convert between kilometres, metres, centimetres and millimetres</p> <p>Solve problems involving length and perimeter</p>	<p><b>Area 1 MA3-10MG</b></p> <p>Recognise the need for square kilometres and hectares to measure area</p> <p>Record areas using the abbreviations km<sup>2</sup> and ha</p> <p>Develop a strategy to find areas of rectangles (including squares) and record the strategy in words</p> <p><b>Area 2 MA3-10MG</b></p> <p>Develop a strategy to find areas of triangles and record the strategy in words</p> <p>Solve problems involving areas of rectangles (including squares) and triangles</p>	<p><b>Time 1 MA3-13MG</b></p> <p>Convert between 12- and 24-hour time</p> <p><b>Time 2 MA3-13MG</b></p> <p>Interpret and use timetables</p>

## Stage 3 Content Clusters

Content Cluster 20: Fractions as an operator			
<b>Fractions and Decimals 2 MA3-7NA</b> Multiply fractions by whole numbers Find a simple fraction of a quantity Solve word problems involving fractions and decimals, including money problems Make connections between equivalent percentages, fractions and decimals Use mental, written and calculator strategies to calculate 10%, 25% and 50% of quantities, including as discounts	<b>Addition and Subtraction 1 MA3-5NA</b> Solve word problems and record the strategy used, including problems involving money Create a simple budget	<b>Multiplication and Division 1 MA3-6NA</b> Use and record a range of mental and written strategies to multiply by one- and two-digit operators	<b>Area 2 MA3-10MG</b> Solve problems involving areas of rectangles (including squares) and triangles
Content Cluster 21: Time can be measured and compared in hours, minutes and seconds (relating 12 to 24 hour time)			
<b>Time 1 MA3-13MG</b> Convert between 12- and 24-hour time Determine and compare the duration of events	<b>Time 2 MA3-13MG</b> Interpret and use timetables	<b>Fractions and Decimals 1 MA3-7NA</b> Model and represent strategies to add and subtract fractions with the same denominator	<b>Addition and Subtraction 2 MA3-5NA</b> Select and apply efficient mental, written and calculator strategies to solve word problems and record the strategy used

## Stage 3 Content Clusters

### Content Cluster 22: Numbers and quantities can be compared using scale (links to proportionality)

<p><b>Multiplication and Division 1 MA3-6NA</b></p> <p>Use and record a range of mental and written strategies to multiply by one- and two-digit operators</p>	<p><b>Length 1 MA3-9MG</b></p> <p>Select and use appropriate instruments and units to measure lengths</p> <p>Record lengths and distances using the abbreviations km, m, cm and mm</p> <p><b>Length 2 MA3-9MG</b></p> <p>Convert between kilometres, metres, centimetres and millimetres</p>	<p><b>Position MA3-17MG</b></p> <p>Use grid-referenced maps to locate and describe positions</p> <p>Follow a sequence of directions, including compass directions, to find a particular location on a map</p> <p>Describe routes using landmarks and directional language</p>	<p><b>Data 1 MA3-18SP</b></p> <p>Construct data displays, including tables, column graphs, dot plots and line graphs, appropriate for the data type</p> <p>Describe and interpret data presented in tables, column graphs, dot plots and line graphs</p>	<p><b>Time 2 MA3-13MG</b></p> <p>Draw and interpret timelines using a given scale</p>	<p><b>Two-Dimensional Space 1 MA3-15MG</b></p> <p>Make and compare enlargements of shapes/pictures</p>
--	--	---	--	---	--

### Content Cluster 23: Measurements are approximations and can be represented using formal units

<p><b>Length 1 MA3-9MG</b></p> <p>Record lengths and distances using the abbreviations km, m, cm and mm</p> <p><b>Length 2 MA3-9MG</b></p> <p>Record lengths and distances using decimal notation to three decimal places</p>	<p><b>Area 1 MA3-10MG</b></p> <p>Record areas using the abbreviations km<sup>2</sup> and ha</p>	<p><b>Volume and Capacity 1 MA3-11MG</b></p> <p>Record volumes using the abbreviations cm<sup>3</sup> and m<sup>3</sup></p> <p><b>Volume and Capacity 2 MA2-11MG</b></p> <p>Record volumes and capacities using decimal notation to three decimal places</p> <p>Convert between millilitres and litres</p>	<p><b>Mass 1 MA3-12MG</b></p> <p>Recognise the need for tonnes to measure mass</p> <p>Record masses using the abbreviations t, kg and g</p> <p>Distinguish between 'gross mass' and 'net mass'</p> <p><b>Mass 2 MA3-12MG</b></p> <p>Record mass using decimal notation to three decimal places</p>	<p><b>Angles 1 MA3-16MG</b></p> <p>Recognise the need for formal units to measure angles</p> <p>Record angle measurements using the symbol for degrees (°)</p> <p>Construct angles using a protractor (up to 360°)</p> <p>Describe angle size in degrees for each angle classification</p>
---	---	--	--	--

## Stage 3 Content Clusters

Content Cluster 24: The multiplicative structure (row and column) can be applied to measure area and volume				
<b>Multiplication and Division 1 MA3-6NA</b> Use and record a range of mental and written strategies to multiply by one- and two-digit operators	<b>Fraction and Decimals 2 MA3-7NA</b> Use mental, written and calculator strategies to multiply decimals by one- and two-digit whole numbers	<b>Area 1 MA3-10MG</b> Develop a strategy to find areas of rectangles (including squares) and record the strategy in words  <b>Area 2 MA3-10MG</b> Develop a strategy to find areas of triangles and record the strategy in words	<b>Volume and Capacity 2 MA3-11MG</b> Develop a strategy to find volumes of rectangular prisms and record the strategy in words	<b>Three-Dimensional Space 2 MA3-14MG</b> Construct prisms and pyramids using a variety of materials, and given drawings from different views
Content Cluster 25: Objects can be measured and compared through different representations				
<b>Three-dimensional Space 1 MA3-14MG</b> Describe and compare properties of prisms and pyramids in terms of their faces, edges and vertices Connect three-dimensional objects with their nets  <b>Three-Dimensional Space 2 MA3-14MG</b> Construct prisms and pyramids using a variety of materials, and given drawings from different views	<b>Volume and Capacity 1 MA3-11MG</b> Use cubic centimetres and cubic metres to measure and estimate volumes Select and use appropriate units to measure volume  <b>Volume and Capacity 2 MA3-11MG</b> Connect volume and capacity and their units of measurement Develop a strategy to find volumes of rectangular prisms and record the strategy in words	<b>Multiplication and Division 1 MA3-6NA</b> Use and record a range of mental and written strategies to multiply by one- and two-digit operators		

## Stage 3 Content Clusters

### Content Cluster 26: Shapes can be measured and compared through different representations

#### Two-Dimensional Space 1 MA3-15MG

Identify, name and draw right-angled, equilateral, isosceles and scalene triangles

Compare and describe side properties of the special quadrilaterals and special triangles

Explore angle properties of the special quadrilaterals and special triangles

#### Area 1 MA3-10MG

Develop a strategy to find areas of rectangles (including squares) and record the strategy in words

#### Area 2 MA3-10MG

Develop a strategy to find areas of triangles and record the strategy in words

#### Length 1 MA3-9MG

Find perimeters of common two-dimensional shapes and record the strategy

#### Angles 1 MA3-16MG

Measure, compare and estimate angles in degrees (up to  $360^\circ$ )

Describe angle size in degrees for each angle classification

### Content Cluster 27: Shape and objects are classified based on their properties

#### Three-Dimensional Space 1 MA3-14MG

Name prisms and pyramids according to the shape of their 'base'

Recognise that prisms have a uniform cross-section and pyramids do not

Describe and compare properties of prisms and pyramids in terms of their faces, edges and vertices

#### Two-Dimensional Space 1 MA3-15MG

Identify, name and draw right-angled, equilateral, isosceles and scalene triangles

Compare and describe side properties of the special quadrilaterals and special triangles

Explore angle properties of the special quadrilaterals and special triangles

Classify and draw regular and irregular two-dimensional shapes from descriptions of their features

Identify line and rotational symmetries

#### Two-Dimensional Space 2 MA3-15MG

Identify, describe, compare and draw diagonals of two-dimensional shapes

Identify and name parts of circles

#### Angles 2 MA3-16MG

Identify and name angle types formed by the intersection of straight lines, including 'angles on a straight line', 'angles at a point' and 'vertically opposite angles'

Use known angle results to find unknown angles in diagrams

## Stage 3 Content Clusters

### Content Cluster 28: Grid references and coordinates can be used for locating and positioning

<p><b>Position 1 MA3-17MG</b> Use grid-referenced maps to locate and describe positions</p>	<p><b>Patterns and Algebra 2 MA3-8NA</b> Locate and record the coordinates of points in all four quadrants of the Cartesian plane</p>	<p><b>Two-Dimensional Space 1 MA3-15MG</b> Use the terms 'translate', 'reflect' and 'rotate' to describe transformations of shapes Make and compare enlargements of shapes/pictures</p> <p><b>Two-Dimensional Space 2 MA3-15MG</b> Identify, use and describe combinations of translations, reflections and rotations</p>	<p><b>Three-Dimensional Space 2 MA3-14MG</b> Construct prisms and pyramids using a variety of materials, and given drawings from different views</p>
---	---	---	--

### Content Cluster 29: Information can be collected, analysed and interpreted using numbers (collecting data)

<p><b>Data 1 MA3-18SP</b> Collect categorical and numerical data by observation and by survey Describe and interpret data presented in tables, column graphs, dot plots and line graphs</p>	<p><b>Data 2 MA3-18SP</b> Interpret and create two-way tables Interpret side-by-side column graphs Compare a range of data displays to determine the most appropriate display for particular sets of data Interpret and critically evaluate data presented in digital media and elsewhere</p>	<p><b>Chance 1 MA3-19SP</b> List outcomes of chance experiments involving equally likely outcomes</p> <p><b>Chance 2 MA3-19SP</b> Conduct chance experiments with both small and large numbers of trials</p>	<p><b>Addition and Subtraction 1 MA3-5NA</b> Select and apply efficient mental, written and calculator strategies for addition and subtraction of numbers of any size</p>	<p><b>Multiplication and Division 1 MA3-6NA</b> Use and record a range of mental and written strategies to divide numbers with three or more digits by a one-digit operator</p>
---	---	--	---	---

## Stage 3 Content Clusters

### Content Cluster 30: Information can be presented visually to convey meaning (data representations and exploring bias)

**Data 1 MA3-18SP**

Construct data displays, including tables, column graphs, dot plots and line graphs, appropriate for the data type

**Data 2 MA3-18SP**

Interpret and create two-way tables  
Compare a range of data displays to determine the most appropriate display for particular sets of data

**Angles 1 MA3-16MG**

Construct angles using a protractor (up to  $360^\circ$ )

**Length 1 MA3-9MG**

Select and use appropriate instruments and units to measure lengths

### Content Cluster 31: Events can be predicted, compared, and analysed based on probability

**Chance 1 MA3-19SP**

List outcomes of chance experiments involving equally likely outcomes

**Chance 2 MA3-19SP**

Compare observed frequencies in chance experiments with expected frequencies  
Conduct chance experiments with both small and large numbers of trials

**Data 1 MA3-18SP**

Collect categorical and numerical data by observation and by survey  
Describe and interpret data presented in tables, column graphs, dot plots and line graphs

**Data 2 MA3-18SP**

Interpret and critically evaluate data presented in digital media and elsewhere

### Content Cluster 32: Probabilities of events can be described in a range of 0 – 1 (probabilities as fractions of a whole)

**Chance 1 MA3-19SP**

Represent probabilities using fractions  
Recognise that probabilities range from 0 to 1

**Chance 2 MA3-19SP**

Compare observed frequencies in chance experiments with expected frequencies  
Represent probabilities using fractions, decimals and percentages

**Data 1 MA3-18SP**

Collect categorical and numerical data by observation and by survey

**Fractions and Decimals 2 MA3-7NA**

Represent, compare and order fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100  
Solve word problems involving fractions and decimals