

Expanded New Zealand Curriculum linked with Numicon

Phases	1				2			3	
Years	0	1	2	3	4	5	6	7	8
Numicon Books	Firm Foundations	1	2	3	4	5	6	7	8
Junior Intervention			Numicon Intervention Programme						
Senior Acceleration Intervention						Numicon – Big Ideas			
Tier 3 ORS	Breaking Barriers								
	Firm Foundations	1	2	3	4	5	6	7	8

Breaking Barriers, along with Firm Foundations and Numicon 1-3 support the learning at this level



Breaking Barriers provides guidance to teachers to ensure the basic ideas of Number are accessible to children experiencing difficulty. There is also guidance on how to address the underlying difficulties that may hinder children's learning.

Firm Foundations builds strong early mathematical understanding through carefully sequenced, practical learning experiences. It aligns with Year 0 of the New Zealand Curriculum.

Numicon 1 develops learning at the NZC Year 1 level. Breaking Barriers links to the activities in Geometry, Measurement and Statistics.

Numicon 2 and 3 builds on Year 1 to provide learning at NZC Year 2 and Year 3. Numicon provides a structured progression of learning materials designed to develop early number understanding from foundational concepts through to more complex ideas within the primary years. The progression is cumulative, helping learners consolidate understanding before moving forward.

Firm Foundations and Numicon 1 - 3 are available in hard-copy and digitally via Oxford Owl - Numicon Online NZ (The online version is completely aligned with the NZC)

The tables in the following pages show the links with Numicon, but teachers need to refer to the **Breaking Barriers Teaching Progression** on the following page, which is Numicon's recommended sequence for teaching; each activity group builds on prior learning.

References are provided in the Breaking Barriers teaching pages to Numicon 1 - 3.

All Doing Maths Together and Exploring Maths All around us from Firm Foundations provide learning through play and generalising activities.

The strands of maths in Breaking Barriers and Numicon 1 - 8 are coloured coded: **Counting, Pattern & Algebra, Numbers and the Number System, Calculating.**
Firm Foundations is designated with a purple background.

Three strands of foundation activities to work in parallel

Pattern and Algebra	Counting	Numbers and the Number System
1 Simple repeating patterns	Counting Activity Group	1 Exploring Numicon Shapes and Baseboard
2 Pattern, direction and orientation		2 Matching Numicon Shapes
3 More complex repeating patterns		3 Making comparisons to understand bigger
		4 Making comparisons to understand smaller
		5 Matching Numicon Shapes and pictures
		6 Making comparisons using the language of comparison

Strand and Activity Group Number	Activity Group Title
Pattern and Algebra 4	Similarities and differences – sorting
Numbers and the Number System 7	Learning to order the Numicon Shapes
Numbers and the Number System 8	Securing ordering of Numicon Shapes
Numbers and the Number System 9	Beginning to learn Numicon Shape patterns
Numbers and the Number System 10	Giving the Numicon Shapes their number names
Numbers and the Number System 11	Labelling Numicon Shapes with numerals
Pattern and Algebra 5	Connecting repeating patterns with numbers
Numbers and the Number System 12	Seeing how many from Numicon Shape patterns
Pattern and Algebra 6	Equivalence – amounts and measures
Pattern and Algebra 7	Odd and even
Pattern and Algebra 8	Reasoning about numbers
Calculating 1	Practical adding – starting with the total
Calculating 2	Practical adding – combining to find how many altogether
Calculating 3	Practical adding – adding more
Calculating 4	Practical subtracting – take away
Calculating 5	Practical subtracting – decrease
Calculating 6	Subtracting – comparing numbers to find the difference
Calculating 7	Practical subtracting – comparing numbers to say how many more to equal
Numbers and the Number System 13	Building and naming teen numbers
Numbers and the Number System 14	Teen numbers – notation
Calculating 8	Introducing the ‘+’ symbol
Pattern and Algebra 9	Introducing the ‘<’ and ‘>’ symbols – comparing amounts and measures

Pattern and Algebra 10	Introducing the ‘=’ symbol
Numbers and the Number System 15	Comparing and ordering to 20
Calculating 9	Introducing the ‘-’ symbol
Calculating 10	Adding and subtracting one
Calculating 11	Money – coin equivalence
Calculating 12	Further ideas for developing fluency – adding and subtracting within 10
Numbers and the Number System 16	Finding how many by grouping in tens
Numbers and the Number System 17	Exploring number lines and counting in steps of 10
Numbers and the Number System 18	Structure of 2-digit numbers
Numbers and the Number System 19	Structure of 2-digit numbers – notation
Numbers and the Number System 20	Comparing and ordering 2-digit numbers
Numbers and the Number System 21	Counting in steps of 2 and 5
Calculating 13	Fractions – parts and wholes
Calculating 14	Practical multiplying
Calculating 15	Introducing the ‘x’ symbol
Calculating 16	Practical dividing
Calculating 17	Introducing the ‘÷’ symbol
Calculating 18	Halves and quarters of wholes

Some references in the following pages are made to **‘Extending the Activities’**. These are found after the learning activities in the same Activity Group. (They are not in every Activity Group.)

For example:

Pattern & Algebra 1

Simple repeating patterns extends into literacy, music, art, measurement and extra ideas for children moving on quickly.

The Expanded Mathematics and Statistics Curriculum is used *alongside* the New Zealand Curriculum.

Number	Algebra	Measurement	Geometry	Statistics
Number structures	Equations and relationships	Size	Object awareness	Developing knowledge from data
Operations		Length	Classifying	Visualisation Of data
Rational Numbers		Capacity	Matching	Interpretation of data
Financial maths		Weight	Shapes	
		Time, routines, sequencing	Pathways	

Number - Number structures

Representations of numerals		
Learning Profile 1	Learning Profile 2	Learning Profile 3
Exploring the names and representations of numerals 1–3	Responding to the names and representations of numerals 1–3	Identifying and connecting numerals up to 5 with their symbols, names, and quantities
Breaking Barriers Pattern and Algebra 1: Simple repeating patterns	Pattern and Algebra 1: Simple repeating patterns Pattern and Algebra 2: Pattern, direction, orientation Pattern and Algebra 3: More complex repeating patterns	Pattern and Algebra 5: Labelling Repeating patterns with Numerals
Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard	Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard Numbers and the Number System 2: Matching Numicon Shapes Numbers and the Number System 5: Matching Numicon Shapes to pictures of the shapes.	Numbers and the Number System 9: Beginning to learn Numicon Shape patterns Numbers and the Number System 10: Giving the Numicon Shapes their Number Names Numbers and the Number System 12: Seeing how many from Numicon Shape patterns
Firm Foundations - Everyday Counting with Numicon - Counting and Number Ideas Book Activity Card 1: Introducing Numicon Shapes (numbers 1 to 3) Activity Card 4: Linking Numicon Shapes with number ideas and numerals Activity Card 5: Linking numerals with Numicon Shapes, and ordering number rods		
Numicon 1 Securing Foundations 1-12 Numbers and the Number System 1-3		

Mark Making to represent quantities		
Learning Profile 1	Learning Profile 2	Learning Profile 3
Exploring making marks using sensory materials in different quantities, with adult support	Making graphic or tactile marks relating to an object or context to represent small quantities	Making intentional marks to represent a quantity or concept
Counting	Counting	Counting
		Pattern and Algebra 5: Labelling Repeating patterns with Numerals
		Numbers and the Number System 11: Labelling Numicon Shapes with numerals
Firm Foundations Everyday Counting with Numicon Counting and Number Ideas Book Activity Card 4: Linking Numicon Shapes with number ideas and numerals Activity Card 5: Linking numerals with Numicon Shapes, and ordering Numicon rods.		
Numicon 1 Securing Foundations 1-12 Numbers and the Number System 1-3		

Counting sequence		
Learning Profile 1	Learning Profile 2	Learning Profile 3
Attending to adult-led demonstrations of the number counting sequence	Responding to number counting sequences with numbers 0–5	- Counting forwards and backwards from 0 to 5 - Ordering numbers 0–5
Counting	Counting	Counting
		Pattern and Algebra 5: Labelling Repeating patterns with Numerals
		Numbers and the Number System 7: Learning to order the Shapes Numbers and the Number System 8: Securing ordering of Shapes Numbers and the Number System 9: Beginning to learn Numicon Shape patterns Numbers and the Number System 10: Giving the Numicon shapes their number names Numbers and the Number System 11: Labelling Numicon Shapes with Numerals Numbers and the Number System 15: Comparing and ordering to 20 (extend when students are ready)
Firm Foundations - Everyday Counting with Numicon - Counting and Number Ideas Book Activity Card 2: Ordering Numicon Shapes Activity Card 3: Introducing Numicon Shape patterns and number rods. Activity Card 4: Linking Numicon Shapes with number ideas and numerals		

Numicon 1

Securing Foundations 1-12

Numbers and the Number System 1-3

Ordering Numbers**Learning Profile 1****Learning Profile 2****Learning Profile 3**

- Understanding 'first' and 'last' in familiar situations

- Using the language of the ordinal numbers 'first', 'second', and 'third' and the word 'last' in functional and social situations

- **Counting**

Breaking Barriers

- **Pattern and Algebra 1:** Simple repeating patterns

- **Counting**

Pattern and Algebra 1: Simple repeating patterns
Pattern and Algebra 3: More complex repeating patterns.
Pattern and Algebra 5: Labelling repeating patterns with numerals
Pattern and Algebra 7: Odd and even
Pattern and Algebra 8: Reasoning about numbers

Breaking Barriers

Numbers and the Number System 7: Learning to order Numicon Shapes
Numbers and the Number System 8: Securing ordering of Numicon Shapes
Numbers and the Number System 9: Beginning to learn Numicon Shape Patterns
Numbers and the Number System 10: Giving the Numicon shapes their number names
Numbers and the Number System 11: Labelling Numicon Shapes with Numerals

Firm Foundations**Activity Card 1:** Introducing Numicon Shapes**Activity Card 2:** Ordering Numicon Shapes**Activity Card 4:** Linking Numicon Shapes with number ideas and numerals**Activity Card 5:** Linking numerals with Numicon Shapes, and ordering Numicon rods.**Numicon 1**

Securing Foundations 1 - 4

Subitising and comparisons of amounts		
Learning Profile 1	Learning Profile 2	Learning Profile 3
	Recognising when a collection of objects is more or less than another collection	Subitising and naming the number in collections of up to three objects and recognising which collection has more and which has less
	Counting Pattern and Algebra 1: Simple repeating patterns Pattern & Algebra 4 Similarities and differences - sorting Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard Numbers and the Number System 2: Matching Numicon Shapes	Counting Pattern & Algebra 4 Similarities and differences - sorting Pattern and Algebra 6: Equivalence – amounts and measures Pattern and Algebra 8: Reasoning about numbers Pattern and Algebra 9: Introducing the '>' and '<' symbols – comparing amounts and measures Pattern and Algebra 10: Introducing the '=' symbol Numbers and the Number System 3: Making comparisons to understand bigger Numbers and the Number System 4: Making comparisons to understand smaller. Numbers and the Number System 5: Matching Numicon Shapes to pictures of the shapes. Numbers and the Number System 6: Making comparisons using the language of comparison Number and the Number system 15: Comparing and ordering numbers Number and the Number system 16: Counting by grouping in 10's
Firm Foundations Everyday counting with Numicon Activity Card 1: Introducing Numicon Shapes Activity Card 2: Ordering Numicon Shapes Activity Card 4: Linking Numicon Shapes with number ideas and numerals Activity Card 5: Linking numerals with Numicon Shapes, and ordering Numicon rods.		
Numicon 1 Securing Foundations 8, 9 and 12 Numbers and the Number system 1, 2		

Counting Amounts, one-to-one counting		
Learning Profile 1	Learning Profile 2	Learning Profile 3
Attending to adult-led demonstration of connections between numbers and quantities of one to three objects	Responding with support to numbers and quantities of a group of one to three objects	- Copying and creating groups of one to five objects - Counting up to five objects with one-to-one correspondence
Counting	Counting	Counting
Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard Numbers and the Number System 2: Matching Numicon Shapes	Numbers and the Number System 3: Making comparisons to understand bigger Numbers and the Number System 4: Making comparisons to understand smaller. Numbers and the Number System 5: Matching Numicon Shapes to pictures of the shapes. Numbers and the Number System 6: Making comparisons using the language of comparison	Numbers and the Number System 8: Securing ordering of Numicon Shapes Numbers and the Number System 9: Beginning to learn Numicon Shape Patterns Numbers and the Number System 10: Giving the Numicon shapes their number names Numbers and the Number System 11: Labelling Numicon Shapes with Numerals Number and the Number system 15, 16, 17
Firm Foundations Everyday Counting with Numicon Counting and Number Ideas Book Activity Card 4: Linking Numicon Shapes with number ideas and numerals Activity Card 5: Linking numerals with Numicon Shapes, and ordering Numicon rods.		
Numicon 1 Securing Foundations 1-12 Pattern & Algebra 1 Numbers and the Number System Measurement 1 - 5		

Bigger and Smaller Amounts		
Learning Profile 1	Learning Profile 2	Learning Profile 3
Exploring the difference in quantities, including when something is 'all gone' or 'more', with adult supervision.	Recognising the differences in quantities, including when something is 'all gone' or 'more'.	Recognise that the size of a set changes when it is increased or decreased by a number of objects including 'all gone', 'more', or 'less'.
Counting	Counting	Counting
		Pattern and Algebra 6: Equivalence – amounts and measures Pattern and Algebra 7: Odd and Even Pattern and Algebra 8: Reasoning about numbers

		Pattern and Algebra 9: Introducing the '>' and '<' symbols – comparing amounts and measures Pattern and Algebra 10: Introducing the '=' symbol
Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard Numbers and the Number System 2: Matching Numicon Shapes Numbers and the Number System 3: Making comparisons to understand bigger Numbers and the Number System 4: Making comparisons to understand smaller. Numbers and the Number System 5: Matching Numicon Shapes to pictures of the shapes.	Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard Numbers and the Number System 2: Matching Numicon Shapes Numbers and the Number System 3: Making comparisons to understand bigger Numbers and the Number System 4: Making comparisons to understand smaller. Numbers and the Number System 5: Matching Numicon Shapes to pictures of the shapes. Numbers and the Number System 6: Making comparisons using the language of comparison	Number and the Number System 3: Making comparisons to understand bigger Number and the Number System 4: Making comparisons to understand smaller Numbers and the Number System 5: Matching Numicon Shapes to pictures of the shapes. Number and the Number System 6: Making comparisons using the language of comparison Numbers and the Number System 10: Giving the Numicon shapes their number names Pattern and Algebra 8: Reasoning about Numbers Numbers and the Number System 9: Beginning to learn Numicon Shape Patterns Numbers and the Number System 10: Giving the Numicon shapes their number names Numbers and the Number System 11: Labelling Numicon Shapes with Numerals Numbers and the Number System 12: Seeing how many without counting from Numicon Shape Patterns
Firm Foundations Everyday counting with Numicon • Activity Card 1: Introducing Numicon Shapes • Activity Card 2: Ordering Numicon Shapes • Activity Card 3: Introducing Numicon Shape patterns and number rods. • Activity Card 4: Linking Numicon Shapes with number ideas and numerals • Activity Card 5: Linking numerals with Numicon Shapes, and ordering Numicon rods.		
Numicon 1 Securing Foundations 1-12 Pattern & Algebra 1 Numbers and the Number System Measurement 1 - 5		

Number - Operations

Joining and separating (early addition and subtraction)		
Learning Profile 1	Learning Profile 2	Learning Profile 3
	Combing small groups of objects to make a group (e.g. Put one cup with another cup together)	Joining and separating groups of up to five objects by counting one-to-one
Counting	Counting	Counting
		Pattern & Algebra 8: Reasoning about Numbers
Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard Numbers and the Number System 2: Matching Numicon Shapes	Numbers and the Number System 3: Making comparisons to understand bigger Numbers and the Number System 4: Making comparisons to understand smaller. Numbers and the Number System 5: Matching Numicon Shapes to pictures of the shapes. Numbers and the Number System 6: Making comparisons using the language of comparison	Number and the Number System 3: Making comparisons to understand bigger Number and the Number System 4: Making comparisons to understand smaller Numbers and the Number System 5: Matching Numicon Shapes to pictures of the shapes. Number and the Number System 6: Making comparisons using the language of comparison
	Calculating 1: Practical adding – starting with the total. Calculating 2: Practical adding – combining to find how many altogether Calculating 3: Practical adding – adding more Calculating 4: Practical subtracting – take away Calculating 5: Practical subtracting – decrease	Calculating 1: Practical adding – starting with the total. Calculating 2: Practical adding – combining to find how many altogether Calculating 3: Practical adding – adding more Calculating 4: Practical subtracting – take away Calculating 5: Practical subtracting – decrease Calculating 6: Subtracting – comparing numbers to find the difference Calculating 7: Practical subtracting comparing numbers to say how many more to equal Calculating 8: Introducing the ‘+’ symbol Calculating 9: Introducing the ‘-’ symbol Calculating 10: Adding and subtracting one Calculating 12: Further ideas for developing fluency – adding and subtracting within 10 Calculating 14: Practical multiplying Calculating 15: Introducing the x symbol Calculating 16: Practical dividing Calculating 17: Introducing the division ÷ symbol

Firm Foundations Everyday Counting with Numicon Counting and Number Ideas Book Activity Card 1: Introducing Numicon Shapes Activity Card 2: Ordering Numicon Shapes Activity Card 7: Adding with Numicon Shapes Activity Card 8: Adding 1 more Activity Card 9: Subtracting – finding the difference Activity Card 10: Subtracting – taking away		
Numicon 1 Calculating 1 and 2, 4, 7, 8 Pattern & Algebra 5		
Numicon 2 Calculating 1, 3, 7, 8, 9, 15 Pattern & Algebra 7		
Numicon 3	Calculating 1	Calculating 1, 3, 5, 6, 7

Number - Rational Numbers

Learning Profile 1	Learning Profile 2	Learning Profile 3
	Exploring sharing objects with other (e.g. a small set or an object), with adult supervision	Equally sharing objects with one person (e.g. a small set or an object)
Breaking Barriers Activity Group Links: Pattern and Algebra 6: Equivalence – amounts and measures Pattern and Algebra 8: Reasoning about Numbers Pattern and Algebra 10: Introducing the '=' symbol		
Calculating 13: Fractions – parts and wholes		
Firm Foundations Activity Card 13 Halving and sharing		
Numicon 1 Calculating 5		
Numicon 2 Calculating 16 Numbers and the Number system 6		
Numicon 3 Calculating 15 and 16		

Number - Financial Mathematics

Learning Profile 1	Learning Profile 2	Learning Profile 3
	- Interacting with New Zealand notes and coins - Exploring exchanging money for goods, with adult support	- Matching New Zealand coins and notes (up to a value of \$10) - Understanding that we have to pay for what we buy
Breaking Barriers Activity Group Links: Pattern and Algebra 4: Similarities and differences – sorting (Activity 4) Calculating 11: Money – coin equivalence		

Numbers and the Number system 19 (See Extending the Activities)

Numbers and the Number system 20 (See Extending the Activities)

Numbers and the Number system 21 (See Extending the Activities)

Calculating 11: Money – coin equivalence

Firm Foundations

Card 9 Subtracting finding the difference – Maths Games and puzzles,

Card 14 How many more, how many fewer –

Using money in role play

Comparisons and patterns of coins in sand

Numicon 1

Numbers and the Number system 3, 4

Measurement 2

Algebra

Equations and Relationships

Learning Profile 1

- Attending to simple repetitive patterns of sound and movement, with adult support

Learning Profile 2

- Exploring patterns within the environment and in familiar contexts

Learning Profile 3

- Identifying simple repeating patterns
- Copying a repeating pattern with two elements

Breaking Barriers Activity Group Links:

Pattern and Algebra 1: Simple repeating patterns

Pattern and Algebra 2: Pattern, direction and orientation

Pattern and Algebra 3: More complex repeating patterns

Pattern and Algebra 4: Similarities and differences - sorting

Pattern and Algebra 5: Connecting repeating patterns with numbers

Pattern and Algebra 7: Odd and even

Firm Foundations

Card 2: Activity 6: Making repeating patterns, Exploring maths all around us.

Card 10: Maths Games and puzzles: Making repeating patterns, Exploring maths all around us.

Card 11: Maths Games and puzzles: Making patterns of doubles, Exploring maths all around us.

Card 15: Exploring maths all around us.

Card 18 Maths Games and Puzzles, Exploring Maths all around us.

Numicon 1

Securing Foundations 4 and 5 - Pattern & Algebra Activities

Measurement

Measuring - size

Learning Profile 1

- Attending to and exploring objects of different sizes

Learning Profile 2

- Recognising differences in size (e.g. big, small)

Learning Profile 3

- Comparing two dissimilar objects by their size

Pattern & Algebra 6- Extending the Activities page 91
Pattern & Algebra 10- Extending the Activities page 108

Breaking Barriers Activity Group Links:

Number and the Number System 3: Making comparisons to understand bigger
Number and the Number System 4: Making comparisons to understand smaller
Number and the Number System 6: Making comparisons using the language of comparison
Numbers and the Number System 7: Learning to order Numicon Shapes
Numbers and the Number System 8: Securing ordering of Numicon Shapes

Firm Foundations

Cards 1-19 – All activities, Exploring Maths all around us.

Numicon 1

Measurement 1

Measuring - Length

Learning Profile 1	Learning Profile 2	Learning Profile 3
• Attending to and exploring the length of objects	• Recognising differences in length	• Comparing two objects by their length

Pattern & Algebra 6- Extending the Activities page 91
Pattern & Algebra 10- Extending the Activities page 108

Breaking Barriers Activity Group Links:

Number and the Number System 3: Making comparisons to understand bigger
Number and the Number System 4: Making comparisons to understand smaller
Number and the Number System 6: Making comparisons using the language of comparison
Numbers and the Number System 7: Learning to order Numicon Shapes
Numbers and the Number System 8: Securing ordering of Numicon Shapes

Firm Foundations

Card 2 Maths Games and Puzzles, Exploring Maths all around us.
Card 5 Exploring Cuisenaire rods – All activities, Exploring Maths all around us.
Card 6 Activity 3, Exploring Maths all around us.
Card 17 Maths Games and Puzzles, Exploring Maths all around us.
Card 18 Maths Games and Puzzles, Exploring Maths all around us.
Card 19 Activity 2, Maths Games and Puzzles, Exploring Maths all around us.

Numicon 1

Measurement 1

Measuring - Capacity

Learning Profile 1	Learning Profile 2	Learning Profile 3
• Attending to and exploring the capacity of an object (all gone, full, empty)	• Recognising difference in capacity (more less, empty, full, same different)	• Comparing two dissimilar objects in relation to capacity

Pattern and Algebra 4: Similarities and differences – sorting (See Connecting Activities)
 Pattern and Algebra 6: Equivalence – amounts and measures (See Connecting Activities)
 Pattern and Algebra 10: Introducing the '=' symbol (See Connecting Activities)

Breaking Barriers Activity Group Links:

Numbers and the Number System 6: Using language of comparison
 Numbers and the Numbers System 7: Learning to order Numicon Shapes (See Extending the Activities)

Firm Foundations

Card 4 Activities 1 & 2 Maths Games and Puzzles, Exploring Maths all around us.

Numicon 1

Measurement 5

Measuring - Weight

Learning Profile 1

- Attending to and exploring the weight of an object (heavy, light)

Learning Profile 2

- Recognising difference in weight (heavy, light)

Learning Profile 3

- Comparing two dissimilar objects by weight (heavy, light)

Breaking Barriers Activity Group Links:

Pattern and Algebra 4: Similarities and differences – sorting (See Connecting Activities)
 Pattern and Algebra 6: Equivalence – amounts and measures (See Connecting Activities)
 Pattern and Algebra 10: Introducing the '=' symbol (See Connecting Activities)

Numbers and the Number System 6: Using language of comparison
 Numbers and the Numbers System 7: Learning to order Numicon Shapes (See Extending the Activities)

Firm Foundations

Card 4 Activities 1 & 2 Maths Games and Puzzles,
 Card 7 Exploring Maths all around us.
 Card 15 Exploring Maths all around us.

Numicon 1

Measurement 4

Time, Routines and sequencing

Learning Profile 1

- Attending to a time, familiar routine, or schedule, with adult support

Learning Profile 2

- Engaging with a schedule to follow a sequence of events
- Anticipating and responding to timing and time in familiar situations

Learning Profile 3

- Recognising the daily sequencing of events and anticipating routine activities with a schedule
- Recognising 'today' as present time and 'tomorrow' as future time
- Connecting and responding to the language of time and duration of familiar events or activities.

Breaking Barriers

Pattern and Algebra 6: Equivalence – amounts and measures (See Extending the Activities)

Breaking Barriers Activity Group Links:

Numbers and the Numbers System 7: Learning to order Numicon Shapes (See Extending the Activities)

Firm Foundations

Activity 1

Activity card 2

Numicon 1

Securing Foundations 1

Geometry 5

Geometry

Geometry - object awareness

Learning Profile 1	Learning Profile 2	Learning Profile 3
- Noticing and then attending to stimuli through the senses - Interacting with objects, including grasping, releasing, and manipulating	Exploring, manipulating, or experimenting with objects and their uses	
Breaking Barriers Activity Group Links: Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard Numbers and the Number System 2: Matching Numicon Shapes		
Firm Foundations Cards 1 - 19		
Attending to adult-led demonstrations of object permanence (the understanding that an object exists even when it is not in the immediate environment)	Responding to situations when objects are not in their immediate environment (but are still nearby)	Asking for objects that are not in their immediate environment and finding hidden objects
Breaking Barriers Activity Group Links: Counting Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard Numbers and the Number System 2: Matching Numicon Shapes Number and the Number System 3: Making comparisons to understand bigger Number and the Number System 4: Making comparisons to understand smaller Number and the Number System 6: Making comparisons using the language of comparison		
Firm Foundations Cards 1 - 19		
Object Awareness		
Learning Profile 1	Learning Profile 2	Learning Profile 3
	Performing an action to get a response (cause and effect)	Communicating planned actions, activities, and processes (cause and effect)

Breaking Barriers:

Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard

Firm Foundations

Cards 1 - 19

Classifying**Learning Profile 1**

Exploring objects that are clearly the same or different in one attribute with adult supervision

Learning Profile 2

Identifying objects that are the same and not the same

Learning Profile 3

Sorting objects according to one given attribute (e.g. colour, shape, size, texture, use).

Breaking Barriers Activity Group Links:

Number and the Number System 3: Making comparisons to understand bigger

Number and the Number System 4: Making comparisons to understand smaller

Number and the Number System 6: Making comparisons using the language of comparison

Firm Foundations

Cards 1 - 19

Numicon 1

Geometry 1

Matching**Learning Profile 1**

- Giving an object or objects to another person

Learning Profile 2

- Matching identical objects

Learning Profile 3

- Matching similar but not identical items, including pictures or tactile images of an item with the tangible item.

Breaking Barriers Activity Group Links:

Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard

Numbers and the Number System 2: Matching Numicon Shapes

Number and the Number System 3: Making comparisons to understand bigger

Firm Foundations

Cards 1 - 19

Numicon 1

Geometry 1, 2

Shapes

- Exploring shapes and their features, with adult supervision

- Interacting with and constructing familiar Shapes (e.g. square, triangle, circle, star, heart)

- Constructing simple, familiar 2D shapes
- Matching simple, familiar 2D shapes

Breaking Barriers Activity:**Counting**

Pattern and Algebra 1: Simple repeating patterns

Pattern and Algebra 2: Pattern, direction and orientation

Firm Foundations

Cards 1 – 19 in general

Card 3 Exploring maths all around us

Card 18 Exploring Maths all around us

Card 19 Activity 6

Numicon 1

Geometry 1, 2

Pathways

Learning Profile 1	Learning Profile 2	Learning Profile 3
- Reacting to changes in the position of the body or movement of the body or body parts - Noticing others in their space and responding to close contact with a familiar person	Orientating and moving their body in the way they want to in familiar environments and contexts	Orientating and moving their body following a single-step instruction to go to familiar places or undertake familiar tasks

Breaking Barriers Activity Group Links:

Pattern and Algebra 2: Pattern, direction and orientation (See Extending the Activities)

Firm Foundations

Cards 1 – 19 in general

Numicon 1

Geometry 5

Pathways

Learning Profile 1	Learning Profile 2	Learning Profile 3
Attending to sources of external stimuli	Responding to positional and directional words in familiar environments and contexts	Responding to and using positional and directional words in familiar environments and contexts

Breaking Barriers Activity Group Links:

Pattern and Algebra 2: Pattern, direction and orientation (See Extending the Activities)

Numicon 1

Geometry 5

		Moving or locating a familiar object as part of a classroom routine
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Breaking Barriers Activity Group Links:

Numbers and the Number System 1: Exploring Numicon Shapes and Baseboard

Numbers and the Number System 2: Matching Numicon Shapes

Statistics

	Learning Profile 1	Learning Profile 2	Learning Profile 3
Developing Knowledge from			Collecting data through sharing personal preferences

Data			
Visualisation of Data			• Representing data with objects of reference, pictures, tactile images, or symbols
Interpretation of Data			• Exploring findings from data visualisations

Breaking Barriers

Potential extension from Calculating 6 & 7 - comparing

Firm Foundations

Card 14 – How many more, how many fewer – to experience constructing pictorial representations of relationships - Pictograms

FF Card 19 – Learning about graphs and probability

Numicon 1

Statistics