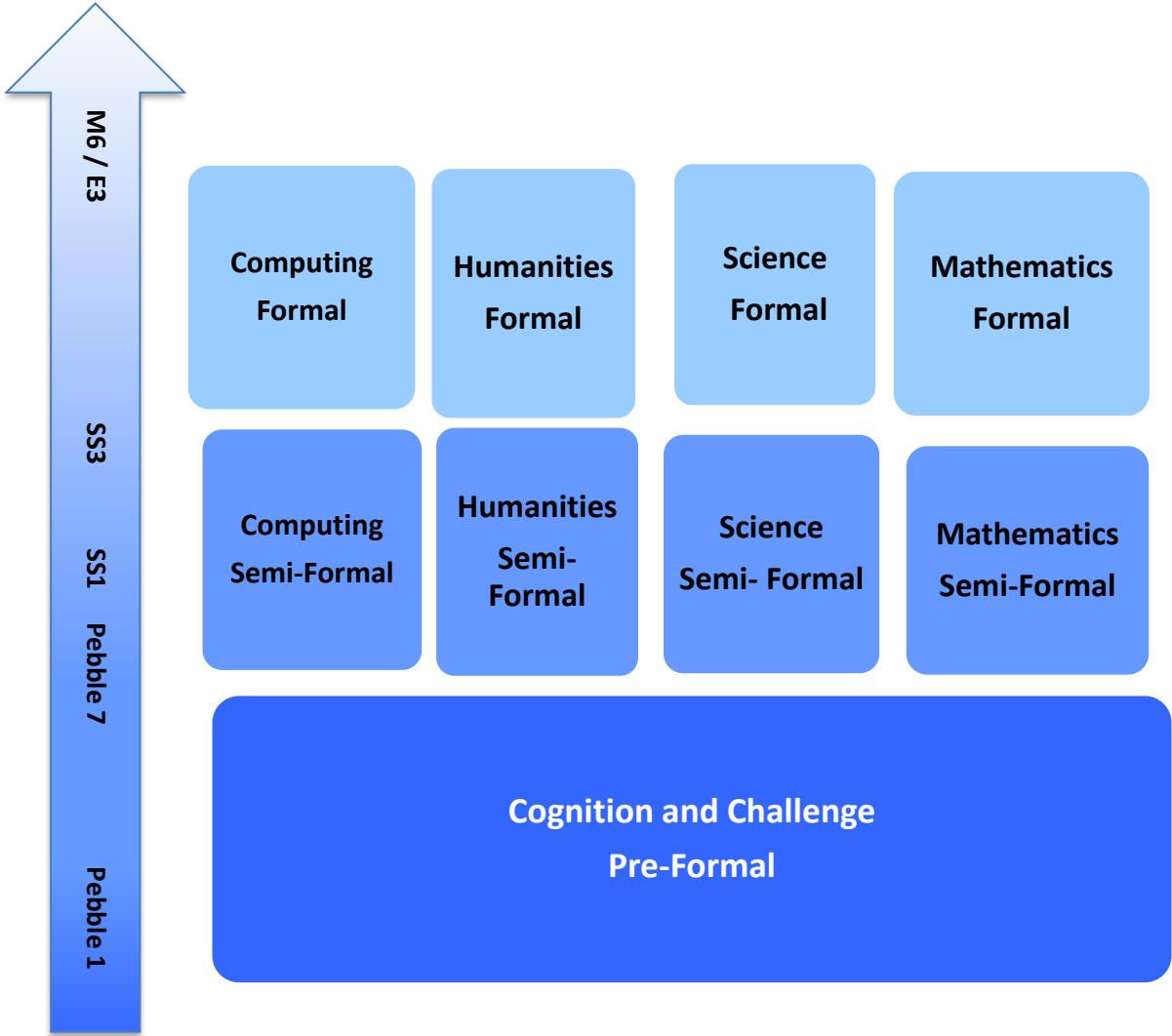


Cognition and Challenge Maths – Semi-Formal Curriculum

Cognition and Challenge



Cognition and Challenge

Semi-Formal Mathematics Curriculum

Cognition and Challenge

The Semi-Formal Pathway curriculum for Cognition and Challenge recognises that learners with severe learning difficulties require a specialised approach to teaching and therefore there will be some differences in the design of the curriculum for these pupils. The semi-formal curriculum at St Giles has been subdivided into curricula for;

- Mathematics
- Science
- Computing
- Humanities – RE, History and Geography
- Modern foreign languages

Mathematics is delivered through systematic core subject learning activities during the week, regular learning opportunities within the daily classroom routine as well as learning opportunities within termly cross curricular topics. Where there are suitable opportunities for using real life experiences to teach maths, this will be taught alongside discreet subject specific sessions, focusing on skills. Where possible, pupils are questioned to check or further their understanding in practical and problem solving activities, which will enhance their learning. “Handling Data crosses the boundaries of all the other strands and many of practical activities already described in other sections involve remembering and organising information.” – Equals (Les Staves).

Mathematics

Intent - What are we trying to achieve through our curriculum?

The semi-formal curriculum for mathematics acknowledges that;

- mathematics is a hierarchical subject,
- learners need to have an understanding of, and security in the current step is necessary before they can move to the next step,
- learners with severe learning difficulties will need a considerable amount of repetition and practice to establish learning before moving on,

- some learners may not be able to reach the more abstract elements of mathematics,
- for some learners on the autistic spectrum, the ability to rote learn can give the appearance that a pupil has mastered abstraction, when in fact they have merely memorised a particular sequential pattern.

Aims;

We aim to ensure SLD learners have access to a semi-formal mathematics curriculum that;

- Provides many opportunities to practise rote counting
- Provides meaningful contexts for learning
- Should be given opportunities to take part in mathematical activities that are interesting and motivating to them,
- Use real-life materials, concrete resources, practical, first-hand, every day activities as a focus,
- Provides opportunities for play including number games, board games, construction toys, sorting games and number songs
- Recognises the importance of games as they are motivational, allow much repetition and are non-pressured,
- Have opportunities to maintain, reinforce and consolidate their skills,
- Includes activities that move beyond memory building activities to take part in supported thinking and problem-solving activities.
- Links and provides opportunities for generalising and applying skills and knowledge in other areas of the curriculum.

Curriculum Design;

For learners at EYFS and in Year 1 the Semi-Formal Pathway curriculum for mathematics is informed by the content of the EYFS Mathematics: Numbers and Shape, space and measure for learners aged below 36 months.

For learners from Year 2 onwards, it is informed by the EQUALS Semi-Formal Curriculum, 'My Thinking and Problem Solving' and the writings of Les Staves.

Implementation - How is our curriculum being delivered?

Curriculum Coverage

The semi-formal curriculum for mathematics recognises that mathematics is all around us and can therefore be developed through **all** curriculum areas and learning activities. Teaching maths through play and practical, everyday activities is motivating and engaging for pupils with severe learning difficulties. At

the same time, we recognise that mathematics is a hierarchical subject and that it is therefore appropriate for teachers to work with pupils on specific mathematical skills and concepts to enable progression.

Although Statistics is not taught as a specific branch at the semi-formal level. Handling data can be taught at a basic level to introduce statistical skills through a practical approach and to enhance the other branches of mathematics which they need to be taught at this level. This can include

Number: Matching activities, Pictograms and block diagrams, Responding to “How many Problems” e.g. How many Sandwiches do we need? And “Which One Problems?” Which One has the most? “What if...? Comparing amounts. Introduce tallying as a way of keeping score, Creating Lists. Simple surveys. What is your favourite fruit?

Calculations: How many more do we need? What happens if I take one away or add one more?

Measurement: Gather information for school routine, Coin Sorting, Sort the long ones from the short ones, anticipation of the beginning and ending e.g. finishing a glass of water. Playing shop.

Geometry: Shape sort, patterns, colour sort. Sorting different objects and placing in a pictogram etc.

Learners from Year 3 onwards will be supported with;

| NUMBER – Counting and understanding numbers - Rote Counting and Counting | | | | |
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| | Curriculum Content What the learner is learning | What the adults working with the learner does | Enabling Environment What is provided | Vocabulary |
| Pebble 7 Semi-Formal | The learner is <ul style="list-style-type: none"> supported to show an increasing awareness of number activities and counting. | <ul style="list-style-type: none"> Encourage the learner to copy actions during number rhymes, songs and number games; Encourage the learner to follow a sequence of pictures or numbers as indicated by a known person during number rhymes and songs | Number songs, rhymes with Makaton signs Provide props for young learners to act out counting songs, stories and rhymes. Use song and rhymes during personal routines, e.g. ‘Two Little Eyes to Look Around’, pointing to their eyes, one by one. Collect number and counting rhymes from a range of cultures and in other languages. This will benefit all young learners and will give additional support for young learners learning English as an additional language | Number Zero, one, two, three to twenty, and beyond None Count (on/up/to/from/down) Before, after More, less, many, few, fewer, least, fewest, smallest, greater, lesser Equal to, the same as Odd, even) |
| Stepping Stone 1 | Rote Counting The learner is; <ul style="list-style-type: none"> encouraged to respond to and join in with familiar number rhymes, stories, songs and games | Rote Counting <ul style="list-style-type: none"> Encourage the learner to use a series of actions during the singing of a familiar song; Encourage the learner to join in by saying, signing or indicating at least one of the numbers in a familiar number rhyme. | Rote Counting Number songs, rhymes with Makaton signs, stories using numbers also with objects Washing line activities Snack time | |


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| | <ul style="list-style-type: none"> taught to indicate one or two <p>Recognising representations and recording numerals</p> <ul style="list-style-type: none"> Use some number names Begin to represent numbers using fingers or marks <p>Compare and order</p> <ul style="list-style-type: none"> Begin to make comparisons between quantities. Make groups of contrasting quantities – one and lots. Demonstrate concept of ‘more’ | <ul style="list-style-type: none"> Teach the learner to indicate one or two using eye pointing, blinks, gestures or any other means to indicate one or two Encourage the learner to match objects such as cups to saucers, straws to drink cartons <p>Recognising representations and recording numerals</p> <ul style="list-style-type: none"> Model number names during play and conversation Represent numbers as you count using fingers or making tally marks <p>Compare and order</p> <ul style="list-style-type: none"> Encourage the learner to add more counters or food items | <p>Resources that support young learners in making one-to-one correspondences, e.g. giving each dolly a cup. Touching objects with support when counting (even incorrectly)</p> <p>Provide props for young learners to act out counting songs and rhymes.</p> <p>Collect number and counting rhymes from a range of cultures and in other languages. This will benefit all young learners and will give additional support for young learners learning English as an additional language</p> <p>Recognising representations and recording numerals</p> <p>Number songs, rhymes with Makaton signs Washing line activities Register</p> <p>Compare and order</p> <p>Provide collections of objects– where possible the objects should be identical in shape, appearance and size.</p> | |
| <p>Stepping Stone 2</p> | <p>Rote Counting The learner is;</p> <ul style="list-style-type: none"> encouraged to join in rote counting up to five taught to recognise numerals from one to nine and understand that each represents a constant number or amount <p>Counting</p> <ul style="list-style-type: none"> taught to demonstrate an understanding of one-to-one correspondence in a range of contexts. Taught to count reliably to 5, make sets of up to 5 objects and use numbers to five in familiar activities and games <p>Recognising representations</p> <ul style="list-style-type: none"> taught to recognise some familiar representations of numbers. <p>Recognising and recording numerals</p> | <p>Rote Counting</p> <ul style="list-style-type: none"> Work with the learner, saying or signing number names to 5 in counting activities. Teach the learner to put the correct number of objects (one to five) into containers marked with the numeral; collect the correct number of items up to five. <p>Counting</p> <ul style="list-style-type: none"> Encourage young learner to touch 1,2,3 as the adult counts, counting toys or pictures, Count out sets of 3, such as knife, fork and spoon <p>Recognising representations</p> <ul style="list-style-type: none"> Use familiar representations with learners e.g. ‘pairs’ give me 5/high 5, dice patterns | <p>Rote Counting and counting including touching to help with one to one correspondence.</p> <p>Number songs, stories, rhymes with Makaton signs also use objects Washing line activities Snack time Register number lines</p> <p>Provide collections of objects– where possible the objects should be identical in shape, appearance and size.</p> <p>Numicon Kit 1 Pattern 2a/2b Numbers and number system 3a</p> <p>Recognising representations</p> | |

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| | <ul style="list-style-type: none"> • taught to use some number names accurately in play and daily activities. • Taught to show recognition of numerals in the environment or personal significance • Taught to make plausible attempts at recording numbers <p>Compare and order</p> <ul style="list-style-type: none"> • Taught to know that a group of things changes in quantity when something is added or taken away. • Taught to demonstrate concept of 'less' | <p>Recognising and recording numerals</p> <ul style="list-style-type: none"> • Find numbers in environment e.g. door numbers, birthday cards <p>Compare and order</p> <ul style="list-style-type: none"> • Support the learner to take part in activities where they should indicate which item has more / less e.g. bottle has less water. | <p>Dice games, non-dice games including build a beetle, snakes and ladders, dominoes, fishing game, skittles matching activities etc.</p> <p>Recognising and recording numerals Number songs, rhymes with Makaton signs Washing line activities Snack time giving out the right amount of snacks for each person. Making sandwiches. Register Writing activities that link numeral to amount Pattern making Role play and real life experiences e.g. virtual shopping catalogue or internet, Café</p> <p>Plan to incorporate comparison activities in areas such as the sand, water or other play areas. Physical and other exercise and sports activities e.g. repetitive activities, scoring etc.</p> | |
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| <p>Stepping Stone 3</p> | <p>Rote Counting The learner is;</p> <ul style="list-style-type: none"> supported to join in rote counting to 9/10 taught to count back from 5 taught to rote count onwards from a given small number <p>Counting The learner is;</p> <ul style="list-style-type: none"> taught to count at up to 10 objects reliably <ul style="list-style-type: none"> taught to estimate a small number (up to 10) and check by counting taught to show an understanding that the last number counted represents the total number of the count <p>Recognising representations The learner is;</p> <ul style="list-style-type: none"> taught to make a subset of up to 5 objects <p>Recognising and recording numerals The learner is;</p> <ul style="list-style-type: none"> taught to recognise numerals 1-5 in familiar contexts. Understand that each numeral represents a constant number, <p>Compare and order The learner is;</p> <ul style="list-style-type: none"> taught to recognise the difference in quantity taught to use the language of 'more' and 'less' to compare two sets of objects. Taught to find one more or less from a group of five objects. <p>Fractions The learner is;</p> <ul style="list-style-type: none"> Taught to Break/share things into two or more parts | <p>Rote Counting</p> <ul style="list-style-type: none"> Teach the learner to continue the rote count onwards in a game using dice and moving counters up to 10; Teach the learner to continue to say, sign or indicate the count aloud when an adult begins counting the first 2 numbers. <p>Counting</p> <ul style="list-style-type: none"> Teach the learner to count a range of every day motivating items e.g. candles on a cake, bricks in a tower suggest numbers that can be checked by counting, guess then count the number of: pupils in a group; adults in the room; cups needed at break time <p>Recognising representations</p> <ul style="list-style-type: none"> make a collection of 3 buttons <p>Recognising and recording numerals</p> <ul style="list-style-type: none"> teach the learner to put the correct number of objects in a pot. <p>Compare and order</p> <ul style="list-style-type: none"> count out and sets of objects recognising difference in quantity and using the language of 'more' and 'less' to compare two sets of objects. <p>Fractions</p> <ul style="list-style-type: none"> Divide food items into fractions | <p>Number songs, stories, rhymes with Makaton signs also use objects. Washing line activities number lines Rote counting, one to one correspondence. Encourage touching the objects and placing them in a more organised way if possible. (in a line).</p> <p>Snack time giving out the right amount of snacks for each person. Making sandwiches.</p> <p>Register time</p> <p>Numicon kit 1 Patterns 2a/2b Numbers and number system 3a</p> <p>Numicon kit 1 Patterns 2a/2b Dice games, non-dice games including build a beetle, snakes and ladders, dominoes, fishing game, four in a row. Hungry, hungry hippos, skittles, matching activities etc.</p> <p>Attach objects onto a number line to show one to one correspondence. Putting objects in the holes of the Numicon to show number representation.</p> <p>Cooking activities, cake sales, Pattern making Role play and real life experiences e.g. virtual shopping catalogue or internet, Café</p> <p>Physical and other exercise and sports activities e.g. repetitive activities, scoring etc.</p> | |
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| NUMBER – Calculations | | | | |
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| | Curriculum Content What the learner is learning | What the adults working with the learner does | Enabling Environment What is provided? | Vocabulary |
| Pebble 7 | The learner is <ul style="list-style-type: none"> supported to show an increasing awareness of number activities and counting. | <ul style="list-style-type: none"> Encourage the learner to copy actions during number rhymes, songs and number games; Encourage the learner to follow a sequence of pictures or numbers as indicated by a known person during number rhymes and songs | Number songs, rhymes with Makaton signs | Number bonds, number line Add, more, increase, plus, make, sum, total, altogether, count all |
| Stepping Stone 1 | Addition and subtraction The learner is; <ul style="list-style-type: none"> Taught to begin to use the language associated with adding and subtracting in play, practical activities and discussions Taught to begin to show interest in number problems. Encouraged when joining in number rhymes and stories, to begin to make responses <i>e.g.</i> | Addition and subtraction <ul style="list-style-type: none"> Model and prompt during number rhymes and stories 'When one more frog jumps in, how many will there be in the pool altogether?' | Number songs, rhymes with Makaton signs Predict a change in events. What happen if...? | |
| Stepping Stone 2 | Addition and subtraction The learner is; <ul style="list-style-type: none"> Taught to respond to 'add one' to a number of objects in practical situations | Addition and subtraction <ul style="list-style-type: none"> Model and prompt learner to respond to requests such as add one pencil to the pencils in the pot, add one sweet to the dish | Cooking activities, cake sales, Numicon Kit 1 Pattern 3a Predict a change in events. What happen if...? Adding items from containers Practical activities and games e.g recording information, using objects tallies, pictures symbols using simple charts (pictograms) and make comparisons . Organising social activities place the right amount of objects, tickets etc. Food preparation adding more looking at proportion and change when more portions are needed. | |
| Stepping Stone 3 | Addition and subtraction The learner is; <ul style="list-style-type: none"> Taught to respond to 'add one' to or 'take one away' from a number of objects in practical situations Encouraged to find the total number of items up to 5 in two groups by counting all of them. | Addition and subtraction <ul style="list-style-type: none"> Model and prompt the learner to add one more to three objects in a box & say how many are now in the box; Model and prompt the learner to say, sign or indicate how many cakes are left when one is sold | Addition and subtraction Cooking activities, cake sales, snack time Numicon Kit 1 Pattern 3a/3b Numbers and number system 4a Calculating 1a Predict a change in events. What happen if...? Adding or removing items from containers predict the outcome. Practical activities e.g. recording information, using objects tallies, pictures symbols using simple charts (pictograms) and make comparisons . | |

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| | | | Organising social activities place the right amount of objects, tickets etc. Food preparation adding more looking at proportion and change when more portions are needed. | |
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| Measurement | | | | |
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| | Curriculum Content What the learner is learning | What the adults working with the learner does | Enabling Environment What is provided | Vocabulary |
| Pebble 7 | <p>The learner is</p> <ul style="list-style-type: none"> • Taught to match big objects and small objects [e.g. | <ul style="list-style-type: none"> • Encourage the learner to find big objects e.g. a big football to place in a net with other big footballs, • Encourage the learner to match a small item with another small item e.g. a small model car with a similar sized model car | Collection of objects in different sizes e.g. compare bears | Full, half full, empty Holds Container Weigh, weighs, balances |
| Stepping Stone 1 | <p>Metric measures The learner is;</p> <ul style="list-style-type: none"> • Taught to recognise big things and small things in meaningful contexts: • Taught to find big and small objects on request where there is a marked difference in size • encouraged to use the language of size in activities and conversation. • Encouraged to explore and join in simple nesting activities. • Taught to recognise objects that are the same size <p>Time The learner is;</p> <ul style="list-style-type: none"> • Taught to begin to use everyday language related to time • Encouraged to anticipate some regular events such as playtimes or home time. <p>Money The learner is;</p> | <ul style="list-style-type: none"> • Ensure examples used are meaningful  <p>Time</p> <ul style="list-style-type: none"> • Model the use of everyday time-related language with the use of a visual classroom timetable <p>Money Organise play, role-play and class / school events / trips into the community that enable learners to</p> | Collection of objects in different sizes e.g. compare bears Nesting toys Provide collections of objects that can be sorted and matched in various ways. Plan to incorporate containers of different sizes in areas such as the sand, water or other play areas Vary the volume and capacity equipment in the sand, water and other play areas to maintain interest. Exploratory activities – experiencing size, weight, volume by comparison. | Heavy, heavier, heaviest, light, lighter, lightest Scales Time Days of the week: Monday, Tuesday, etc. Seasons: spring, summer, autumn, winter Day, week, month, year, weekend Birthday, holiday Morning, afternoon, evening, night, midnight Bedtime, dinnertime, playtime |

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| | <ul style="list-style-type: none"> • Taught to understand that you can exchange one object for another | <p>experience <i>exchanging a coin for an item, or one item for another.</i></p> | <p>Role play and real life shopping experience using Real coins, toy tills, visits to shops, cake sales Use coins for sorting on play trays and into bags, purses and containers</p> | <p>Today, yesterday, tomorrow Before, after Next, last Now, soon, early, late Quick, quicker, quickest, quickly , fast, faster, fastest, slow, slower, slowest, slowly Old, older, oldest, new, newer, newest Takes longer, takes less time Hour, o'clock, half past Clock, watch, hands How long ago?, how long will it be to...?, how long will it take to...?, how often? Always, never, often, sometimes, usually Once, twice First, second, third, etc. Estimate, close to, about the</p> |
| <p>Stepping Stone 2</p> | <p>Metric measures The learner is;</p> <ul style="list-style-type: none"> • Taught to compare the overall size of one object with that of another where the difference is not great, • Taught to independently complete simple nesting activities • Encouraged to use familiar words or signs in practical situations when they compare sizes and quantities, • Encouraged to use words, give sign or symbol to show or describe objects which are the same <p>Time The learner is;</p> <ul style="list-style-type: none"> • Taught to begin to use language linked with particular times and events in the day e.g. breakfast - beginning of the day/morning, bedtime – night-time • Encouraged to show understanding of what is happening now and what will happen next. <p>Money The learner is;</p> <ul style="list-style-type: none"> • Taught to count up to 3 objects to exchange for another | <p>Metric measures</p> <ul style="list-style-type: none"> • Model and encourage the learner to compare similar sized items e.g. identifying the bigger of two Russian dolls or nesting cubes • Model and encourage the learner to use the words 'heavy' and 'light', 'more' and 'less', to compare objects or quantities <p>Time Model and encourage the learner to use language linked to events during the day</p> <p>Money Model and encourage the learner to use language linked to exchange of objects for another.</p> | <p>Metric measures Collection of objects in different sizes e.g. compare bears Nesting toys Exploratory activities – experiencing size, weight , volume by comparison. DT activities – weights, balancing, emptying, filling containers in gardening, matching sizes. Experiments in science Sport activities using distances near and far, weights</p> <p>Time Visual timetables of the day, now / next boards Managing social time 'Now ' and 'next', turn taking daily events, short times and longer times. Understand weeks and days an Significant days.</p> <p>Money Role play and real life shopping experience using Real coins, toy tills, visits to shops, cake sales, visits to shops Use coins for sorting on play trays and into bags, purses and containers</p> | |

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| Stepping Stone 3 | <p>Metric measures The learner is;</p> <ul style="list-style-type: none"> Encouraged to compare objects directly, focusing on one dimension such as length or height where the difference is marked and can indicate 'the long one' or 'the tall one' <p>Time The learner is;</p> <ul style="list-style-type: none"> Taught to show awareness of order and sequences familiar events. Taught to understand some terminology relating to passage of time e.g. before, after, later, next <p>Money The learner is; Taught to understand that in shopping activities you buy things for money</p> | <p>Metric measures</p> <ul style="list-style-type: none"> Model and encourage the learner to compare objects directly e.g. comparing two plants, placed side by side and indicate the tall one, or comparing two zips and indicating the long one <p>Time Model and encourage the learner to use language linked to familiar events</p> <p>Money Model and encourage the learner to use language during and about shopping activities in which you buy things for money. To understanding earning and spending – including reward systems. (this is dependent on the level of understanding of the child).</p> | <p>Metric measures Collection of objects / people in different sizes e.g. compare bears Nesting toys Exploratory activities – experiencing size, weight , volume by comparison. Practical activities – putting items away in the right place, matching and fitting objects DT activities – weights, balancing, emptying, filling containers in gardening, matching sizes. Experiments in science Sport activities using distances near and far, weights Timed events. E.g. Understand quicker is faster</p> <p>Time- Visual timetables of the day and week, now / next boards Managing social time 'Now ' and 'next', turn taking daily events, short times and longer times. Understand weeks and days an Significant days.</p> <p>Money Role play and real life shopping experience using Real coins, toy tills, visits to shops, cake sales, visits to shops Use coins for sorting on play trays and into bags, purses and containers To see that things can be earned e.g. coins, time etc.</p> | |
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| Geometry | | | | |
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| | Curriculum Content What the learner is learning | What the adults working with the learner does | Enabling Environment What is provided | Vocabulary |
| Pebble 7 | <p>The learner is;</p> <ul style="list-style-type: none"> Encouraged to search for objects that have gone out of sight, hearing or touch, demonstrating the beginning of object permanence Encouraged to demonstrate interest in position and the relationship between objects | <p>Encourage the learner to search for an object or sound when it is removed.</p> | <p>Construction toys, 2D and 3D shapes, shape sorters, nesting toys Handling objects moving, placing, fitting, stacking, hiding and revealing. Begin to listen to language related to movement and position</p> | <p>Properties of shape Group, sort Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square</p> |
| Stepping Stone 1 | <p>Properties of shape The learner is;</p> <ul style="list-style-type: none"> Encouraged to manipulate three-dimensional shapes | <p>Properties of shape Encourage the learner to put shapes into a shape sorter, Encourage the learner to use 3D objects to build and manipulate models</p> | <p>Properties of shape Construction toys, 2D and 3D shapes, shape sorters Handling objects moving, placing, fitting, stacking, hiding and revealing. Using cooking and art activities to describe and use shape</p> | <p>Shape Corner (point, pointed) Face, side, edge</p> |

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| | <p>Position and Direction The learner is;</p> <ul style="list-style-type: none"> Encouraged to intentionally search for objects in their usual place Encouraged to explore the position of objects | <p>Position and Direction Encourage the learner to follow instructions to collect / fetch shapes e.g. going to the mathematics shelf for the box of shapes, Encourage the learner to follow instructions to place objects in and out of containers, placing objects inside and outside a hoop, fits as many objects as possible into a box</p> | <p>Position and Direction Containers, Language related to movement and position.</p> | <p>Make, build, draw Flat, curved, straight, round Hollow, solid</p> <p>Position and Direction</p> |
| Stepping Stone 2 | <p>Properties of shape The learner is;</p> <ul style="list-style-type: none"> Encouraged to pick out described shapes from a collection Encouraged to use familiar objects and common shapes to create and recreate patterns and build models <p>Position and Direction The learner is;</p> <ul style="list-style-type: none"> Encouraged to search for objects not found in their usual place, demonstrating their understanding of object permanence Encouraged to use some positional language in activities and conversations. | <p>Properties of shape</p> <ul style="list-style-type: none"> Encourage the learner to pick out all the round shapes in the classroom, Encourage the learner to find shapes with straight edges, Encourage the learner to fit shapes into matching holes <p>Position and Direction</p> <ul style="list-style-type: none"> Encourage the learner to find objects not stored in the usual place e.g. looking for cups when they are not in their usual cupboard Play games / lead classroom activities that use positional language | <p>Properties of shape Construction toys, 2D and 3D shapes, shape sorters, jig saws - Offer a range of puzzles with large pieces and knobs or handles to support success in fitting shapes into spaces. Handling objects moving, placing, fitting, stacking, hiding and revealing. Numicon Kit 1 Pattern 1a Numicon Kit 1 Pattern 1b</p> <p>Position and Direction Classroom and desk storage that is consistent and accessible to learners Use language related to movement and position. Using cooking and art activities to describe and use shape</p> | <p>Position Over, under, underneath, above, below, top, middle, bottom, side on, in, outside, inside around, in front, behind beside, next to/close to/near to opposite, apart Front, back Before, after</p> |
| Stepping Stone 3 | <p>Properties of shape The learner is;</p> <ul style="list-style-type: none"> Taught to respond to mathematical vocabulary such as 'straight', 'circle', 'larger' to describe the shape and size of solids and flat shapes. Taught to describe shapes in simple models, pictures and patterns Taught to copy and continue more complex patterns using familiar objects and common shapes <p>Position and Direction The learner is;</p> <ul style="list-style-type: none"> Taught to understand and respond to terms 'forwards' and 'backwards' | <p>Properties of shape</p> <ul style="list-style-type: none"> Teach the learner to identify the larger circle / straight line e.g. when stacking two cans Model and encourage the use of vocabulary when making simple models, pictures and patterns Teach the learner to copy and continue more complex patterns using familiar objects and common shapes <p>Position and Direction Encourage the learner to follow instructions to move forwards and backwards on request, Support the learner to recognise when a vehicle/walker / wheelchair / Beebot is moving forwards or backwards, Support the learner to recognise and explain that they are moving a counter forward or backward on a board game</p> | <p>Properties of shape Construction toys, 2D and 3D shapes, numicon, compare bears Numicon Kit 1 Pattern 1a Numicon Kit 1 Pattern 1b Describing and understanding different properties of shape including curved, sides, straight,, corners etc. Using cooking and art activities to describe and use shape</p> <p>Position and Direction board games, Beebots, PE activities Use Language related to movement and position and follow instructions.</p> | <p>Between, middle, edge, centre Corner Above and below</p> <p>Direction Forwards and backwards Journey Left, right, up, down, forwards, backwards, To, from, towards, away from Movement Slide, roll, turn, whole turn, half turn Stretch, bend</p> |

Impact – Assessment - what difference is our semi-formal mathematics curriculum making?

Progress in mathematics is assessed using Pebble Level 7, Stepping Stones and Bridging Levels.

Individual outcomes for learners in this curriculum area are set for each key stage through the learner's Education, Health and Care Plan under Communication and Interaction. Annual targets are set and broken into smaller steps on Timelines. Progress is recorded regularly using the Timelines. These are discussed and moderated on a termly basis at Progress meetings and reported on annually through the EHCP Annual Review.

Appendix:

Vocabulary list of the different strands from S1 to S3.