

Early Level Numeracy Parent Workshop

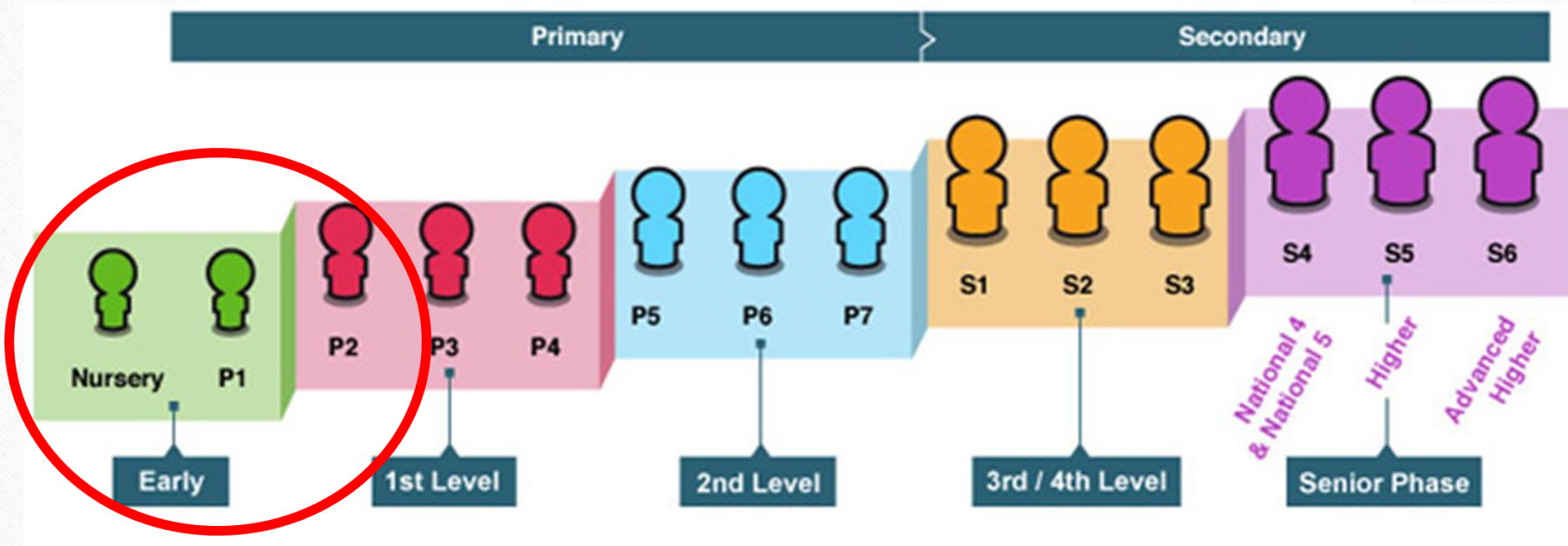


WORK TOGETHER
PLAY TOGETHER
SUCCEED TOGETHER

Overview

- Progression in Early Numeracy across Early Level and into First Level
- What Numeracy looks like in our ELC Class
- Ideas for how you can support at home

curriculum for excellence



successful learners

with:

- enthusiasm and motivation for learning
- determination to reach high standards of achievement
- openness to new thinking and ideas

and able to:

- use literacy, communication and numeracy skills
- use technology for learning
- think creatively and independently
- learn independently and as part of a group
- make reasoned evaluations
- link and apply different kinds of learning in new situations.

confident individuals

with

- self-respect
- a sense of physical, mental and emotional well-being
- secure values and beliefs
- ambition

and able to

- relate to others and manage themselves
- pursue a healthy and active lifestyle
- be self-aware
- develop and communicate their own beliefs and view of the world
- live as independently as they can
- assess risk and make informed decisions
- achieve success in different areas of activity.

To enable all young people to become:

responsible citizens

with:

- respect for others
- commitment to participate responsibly in political, economic, social and cultural life

and able to:

- develop knowledge and understanding of the world and Scotland's place in it
- understand different beliefs and cultures
- make informed choices and decisions
- evaluate environmental, scientific and technological issues
- develop informed, ethical views of complex issues.

effective contributors

with:

- an enterprising attitude
- resilience
- self-reliance

and able to:

- communicate in different ways and in different settings
- work in partnership and in teams
- take the initiative and lead
- apply critical thinking in new contexts
- create and develop
- solve problems

Learning across the four contexts

Opportunities for personal achievement

Opportunities for personal achievement

Personal achievement provides children and young people with a sense of satisfaction and helps to build motivation, resilience and confidence. The experiences and outcomes include opportunities for a range of achievements in the learning setting and beyond. All establishments need to plan to offer opportunities for achievement and to provide the support and encouragement which will enable children and young people to step forward to undertake activities which they find challenging. This is one of the key areas where schools need to work closely with a wide range of partners to help young people access information and opportunities and make their voices heard.

Interdisciplinary Learning

Interdisciplinary learning

The curriculum should include space/opportunities that enable children and young people to make connections between different areas of learning. Interdisciplinary learning should be stimulating, relevant and challenging. Revisiting a concept or skill from different perspectives deepens understanding and can make the curriculum more coherent and meaningful for learners. It can take advantage of opportunities to work with partners who are able to offer and support enriched learning experiences and opportunities for young people's wider involvement in society.

Effective interdisciplinary learning:

- can take the form of individual one-off projects or longer courses of study
- is planned around clear purposes
- is based upon experiences and outcomes drawn from different curriculum areas or subjects within them
- ensures progression in skills and in knowledge and understanding
- can provide opportunities for mixed stage learning which is interest based.

The Curriculum
'the totality of all that is planned for children and young people throughout their education'

Ethos and life of school as a community

The starting point for learning is a positive ethos and climate of respect and trust based upon shared values across the school community. All practitioners should contribute through open, positive, supportive relationships where children and young people will feel that they are listened to; promoting a climate in which children and young people feel safe and secure; modelling behaviour which promotes effective learning and wellbeing within the school community; and by being sensitive and responsive to each young person's wellbeing.

Children and young people should be encouraged to contribute to the life and work of the school and to exercise their responsibilities as members of a community. This includes opportunities to participate responsibly in decision-making, to contribute as leaders and role models, offer support and service to others and play an active part in putting the values of the school community into practice.

Ethos and life of the school as a community

Curriculum areas and subjects

The curriculum areas are the organisers for setting out the experiences and outcomes and contribute to developing the four capacities. There are eight curriculum areas. Curriculum areas are not structures for instating: establishments and partnerships have the freedom to think creatively about how they can organise and plan for deep, sustained learning which meet the needs of their children and young people.

Subjects are drawn from the curriculum areas and provide a familiar structure for organising knowledge and skills. As young people move through the broad general education and into the senior phase they will experience increasing specialisation and greater depth, with a wide variety of subjects increasingly being the principal means of structuring learning and delivering outcomes.

Curriculum areas and subjects

Top 10 employability skills

1 ORGANISATIONAL SKILLS

- plan your work to meet deadlines and targets
- organise your own time and coordinate with others
- monitor and adjust the progress of your work to stay on track

HOW I CAN DEVELOP THESE SKILLS:

- help organise an event or project
- plan your revision timetable
- actively change plans if you run out of time, or something unexpected happens

2 ABILITY TO LEARN AND ADAPT

- learn new things
- learn from successes and failures
- adapt and do things better

HOW I CAN DEVELOP THESE SKILLS:

- think how to make your work even better
- put yourself forward when there are chances to learn new skills
- share your ideas and give feedback to improve your work

3 WORKING UNDER PRESSURE AND TO DEADLINES

- meet deadlines and targets
- handle the pressure that comes with meeting deadlines and targets
- ensure that you are seen as a reliable person

HOW I CAN DEVELOP THESE SKILLS:

- finish work before the deadline, using that time to check and improve it
- plan and make the most of available time
- prioritise your commitments inside and outside school or college

4 COMMUNICATION AND INTERPERSONAL SKILLS

- explain and present what you mean clearly, whether written or verbal
- do your best to understand others

HOW I CAN DEVELOP THESE SKILLS:

- do a presentation or speak with an audience
- take part in debates
- give instructions to others

5 TEAMWORK

- understand how you and others work best together
- get things done when working with people with different skills, backgrounds and personalities

HOW I CAN DEVELOP THESE SKILLS:

- plan ahead when working with others
- take account of how your team are feeling when you work together

6 VALUING DIVERSITY AND DIFFERENCE

- respect others
- value the skills and experience that different people have
- show consideration for the needs of different people

HOW I CAN DEVELOP THESE SKILLS:

- work with people who have different skills
- make sure everyone is involved in conversations and activities

7 NEGOTIATION SKILLS

- think about what you and others want and need
- 'give and take' fairly when working with others

HOW I CAN DEVELOP THESE SKILLS:

- look for ideas that benefit others as well as yourself
- carry out a school Leverage enterprise or SS24 project that involves agreeing prices
- ask a favour of someone, supported by offering something in return

8 USING INITIATIVE AND BEING SELF-MOTIVATED

- follow instructions, making sure you do not always have to be told what to do and when
- put forward your own ideas
- do something without being told, and not be put off by setbacks

HOW I CAN DEVELOP THESE SKILLS:

- finish work without being asked
- work without help, but know when to ask for it
- suggest new ideas

9 PROBLEM SOLVING SKILLS

- identify key issues in a problem
- use your knowledge and experience when tackling problems
- develop and test possible solutions

HOW I CAN DEVELOP THESE SKILLS:

- design objects and materials in design and technology
- plan a STEM Club project
- analyse results to make or science
- evaluate evidence in science or humanities

10 NUMERACY AND IT SKILLS

- use numbers and data to support your work and obtain meaningful information
- apply your valuable IT skills

HOW I CAN DEVELOP THESE SKILLS:

- use numerical evidence in a science practical, STEM project or business idea
- help your family with budgeting or other money decisions
- learn new IT skills such as coding

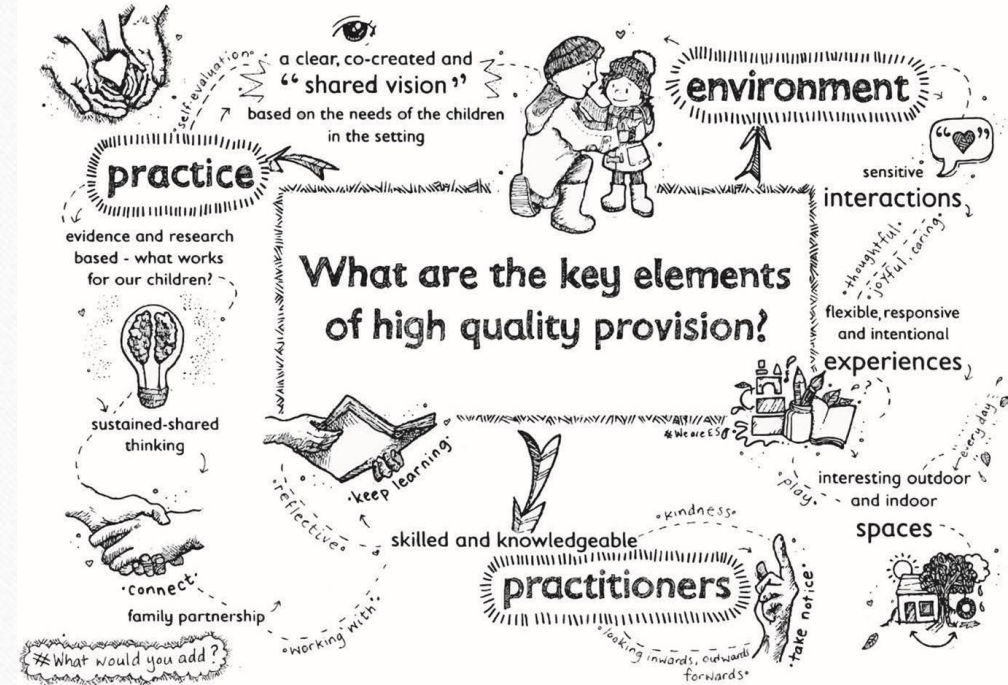
KEY

- HOW YOU WORK
- HOW YOU WORK WITH OTHERS
- HOW YOU THINK
- SHOW ALL

STEM LEARNING

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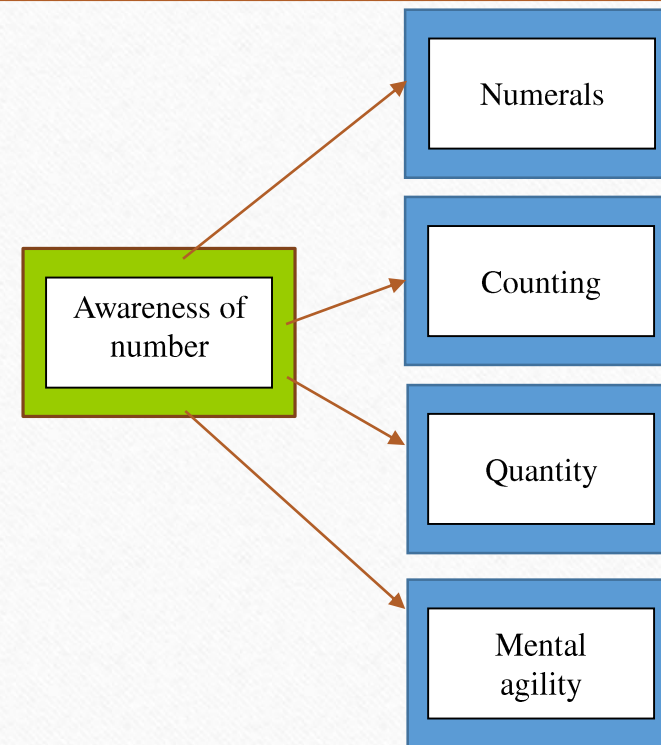
Realising the Ambition



Falkirk Early Learning Model for Play Pedagogy in Practice



What does numeracy look like in the early years?



Overarching themes for numeracy and mathematical learning from birth through the early years of childhood

Numeracy and mathematical learning begins at birth and is evident throughout a child's life experiences

Numeracy and mathematical learning can be found **in all aspects of the curriculum** and **all areas of the setting**

Numeracy and mathematical experiences should weave, build and grow children's interests, vocabulary and knowledge

Numeracy learning is enhanced by adults who use purposeful mathematical language when carrying out experiences

Numeracy and mathematical learning should be actively encouraged by providing different materials in different contexts to encourage opportunities for exploration, enquiry and problem solving



When I am a baby...

- Provide a range of richly illustrated books for me. Discuss the illustrations with me using language such as bigger, smaller, up, down, under, over.
- Involve me in simple counting songs with repetition of rhyme and rhythm.
- Encourage me to notice how numbers are evident in my environment.
- Give me time and space to explore toys and materials from different angles and move around freely to investigate my surroundings in terms of position and how my body works.
- Water and sand play are important for me, model pouring and measuring for me to experiment with.
- Provide materials such as paint and clay for me to explore, discussing with me categorising concepts such as hard, soft, wet, dry.
- Encourage me to sort and recognise and make patterns, supporting me to notice differences.
- Encourage my awareness of shape within natural contexts and environments.
- Enable me to play outdoors every day which includes discussing, for example, how the wind blows, the features of natural materials, exploring the textures, weight and size of items such as stones, twigs and plants.

When I am a toddler...

- Provide richly illustrated books with representations of number, shape and pattern to support conversations with me around these concepts.
- Sing and recite counting songs and rhymes with me, linking to visual representations using rhyme and rhythm.
- Encourage me to notice and use numbers as I explore my environment.
- Encourage me to have fun and play with numbers; investigating and experimenting with quantity, through comparing and contrasting a variety of objects using mathematical language such as less than, more than, same as.
- Continue to give time and space for me to explore toys and materials from different angles.
- Encourage me to move around freely to investigate my surroundings in terms of position and how my body works.
- Ensure my water and sand play is developing more specific language around pouring, measuring, volume, and capacity.
- Provide a variety of materials for me to explore, discussing with me categorising and sorting concepts such as hard, soft, wet and dry.
- Encourage me to sorting and play with patterns, supporting me to identify the characteristics of different objects.
- Encourage me to identify and explore shape within natural contexts and environments.
- Enable daily outdoor play which encourages me to explore natural materials through movement and to gain an understanding of textures, weights and sizes of items.

When I am a young child...

- Continue to provide me with richly illustrated story books with representations of number, shape and pattern to support conversations around these concepts.
- Continue to sing and recite counting songs and rhymes linking to visual representations of numbers that involve counting, ordering and recognising number.
- Encourage me to notice how numbers are evident in my environment and to enjoy using and writing numbers for a purpose.
- Continue to encourage me to play with numbers, having fun investigating and experimenting with quantity, through comparing and contrasting a variety of objects using mathematical language such as less than, more than, same as.
- Support my understanding and use of positional language within everyday experiences and through activities such as role-play, board games, digital technologies and programmable toys.
- Continue to include water and sand play to encourage me to explore, experiment, test and extend ideas developing more specific language and understanding around pouring, measuring, volume, and capacity.
- Provide a variety of materials which encourage my reasoning through experimentation, trial and error and prediction based on my developing understanding of mathematical concepts.
- Encourage me to create my own patterns and sets of objects, identifying and talking about the characteristics we notice together.
- Encourage me to identify and explore shape and symmetry, developing an understanding of characteristics within natural contexts and environments.
- Enable daily outdoor play which encourages me to explore size and perspective through my movements and by seeing familiar objects from a different angle, height or distance.

How do we support numeracy awareness?

- Environment/ spaces
- Resources – loose parts, measurement tools, books, etc.
- Interactions
- Experiences/ routines – cloakroom, snack, baking.
- Stories, rhymes and song
- Number sequences and numerals – five and tens frames.
- Counting collections

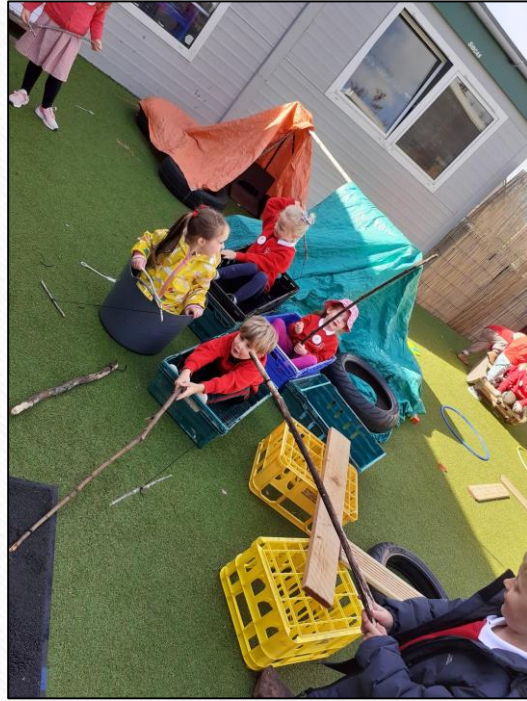
Environment/ Spaces





Resources





Interactions



Experiences/ Routines





Stories, Rhyme and Song



Number Sequences and Numerals



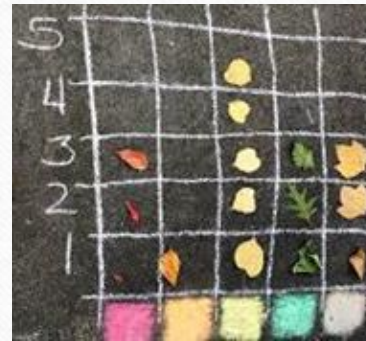
Counting Collections



Mathematical Mark Making



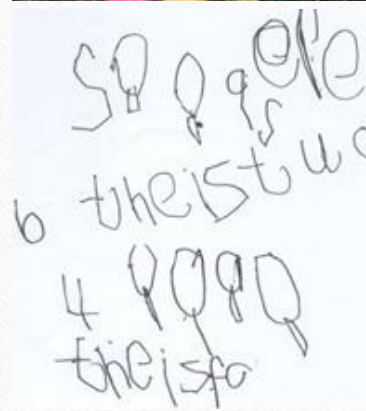
**Idiosyncratic/
Dynamic-**
child makes marks
and can explain the
meaning.



Pictographic-
pictures/ items
represent quantity.



Iconic -
one mark for
one item.



Symbolic-
close to actual
numbers.

How can numeracy awareness be supported at home?

- Nurturing Numeracy packs



Ten numeracy packs in the set:

Number, Counting, Sorting,
Matching, Measuring, Pattern,
Space, Quantity, Shape,
Estimation.

- Suggested experiences (real life, low cost/ no cost)
- Suggested book to listen to together
- Skills to develop
- Mathematical language to use
- Associated resources
- Opportunity to feedback and help develop Nurturing Numeracy bags
- Also available on website



Noticing

Karen Wilding – Early Years Maths <https://www.youtube.com/watch?v=1q0gLRdt4VM>

- Stable order - order of number names never changes and are repeatable. <https://www.youtube.com/watch?v=1EzGw-JxSmA>
- One to one - one object to one number name. <https://www.youtube.com/watch?v=dvyLUpE6o7A>
- Cardinal - last number name tells total number of the group. <https://www.youtube.com/watch?v=ieRYzIFWWUg>
- Order irrelevance- counting order does not affect size of group. <https://www.youtube.com/watch?v=xVv-qjhEUgc>
- Abstraction - tangible or intangible. Set of random items. <https://www.youtube.com/watch?v=6WbYPsr9lgc>



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Wallacestone Primary School

Welcome to our website

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Early Level - Maths Family Learning

Parents of ELC Class or Primary 1 are invited to make use of the resources below to support with family learning. We are looking to hold an online workshop for Early Level parents/carers looking at how to support with Maths & Numeracy in early 2022.

ELC Class parents/carers - look out for more information on how we will be using our Nurturing Numeracy packs with take home packs.

	1 Nurturing Numeracy Number web	[pdf 1MB]	
	2 Nurturing Numeracy Counting web	[pdf 1MB]	
	3 Nurturing Numeracy Sorting web	[pdf 1MB]	
	4 Nurturing Numeracy Matching web	[pdf 1MB]	
	5 Nurturing Numeracy Measuring web	[pdf 1MB]	
	6 Nurturing Numeracy Pattern web	[pdf 1MB]	
	7 Nurturing Numeracy Space web	[pdf 1MB]	
	8 Nurturing Numeracy Quantity web	[pdf 1MB]	
	9 Nurturing Numeracy Shape web	[pdf 1MB]	
	10 Nurturing Numeracy Estimation web	[pdf 1MB]	

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Wallace...
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"This is our police
station." 😊



9

Feedback

