

# Argyll and Bute Learning and Development Framework Numeracy Progression and Tracking













## Argyll and Bute's Ambition



- Raise educational attainment and achievement for all
- Use performance information to secure improvement for children and young people
- Ensure children have the best start in life and are ready to succeed
- Equip young people to sustain positive destinations and achieve success in life
- Strengthen partnership working and community engagement
- Strengthen leadership at all levels



## What is Numeracy and Mathematics?

Being numerate means having the confidence and skill to use numbers and mathematical approaches in all aspects of life.

In early years this includes being able to:

- Count
- Recognise numbers
- Represent quantities
- Share things out
- Sort and match items
- Understand the language for comparing and ordering objects
- Recognise repeating patterns



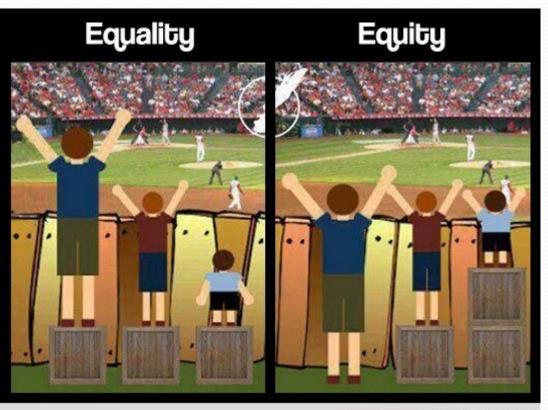
## Why is being numerate important?

Building the Curriculum 4 (Scottish Government, 2009) for *Curriculum for Excellence*, numeracy is defined as:

"Being numerate involves developing a confidence and competence in using number that allows individuals to solve problems, interpret and analyse information, make informed decisions, function responsibly in everyday life and contribute effectively to society. It gives increased opportunities within the world of work and sets down foundations which can be built upon through life-long learning."



# **Equality and Equity**



More pics on www.imfunny.net



# Interactions – Role of the Adult

- Modelling appropriate talk and a range of vocabulary by putting children's actions into words.
- Modelling the use of numbers and counting in everyday situations.
- Writing numerals for a range of purposes.
- Effective questioning to develop, extend and sustain children's play.
- Encouraging children to think out loud as they take part in mathematical activities.
- Recognition of individual learning skills and planning for both more focused adult- led activities and providing the resources to enable high quality child-initiated play that extends learning.



## Learning and Development Profile – Young Child

Community Services: Education

**UPDATED SEPTEMBER 2017** 

#### **Monitoring and Tracking Progress in ELC Numeracy and Mathematics**

Incorporating Education Scotland 'Numeracy and Mathematics Benchmarks and the City of Edinburgh Council's 'Numeracy Assessment and Planning Tracker



#### Context

Education Scotland has placed a greater emphasis on planning for progression and expect ELC settings to have a clear strategy for the development and assessment of children's numeracy skills to ensure smooth progression and achievement. This tool will enable you to do this. The skills are based on the 'Numeracy and Mathematics benchmarks – Early Level. This should help you to make clear informed decisions about children's progression.





# **Numeracy Progression Tracker**

Curriculum Organisers	Experiences and Outcomes	Skills	June Progress	Dec/Jan Progress	June Progress
understanding that they	understand and use them in conversation				
Number recognition	represent quantities, and I can				
	use them to count, create	I can recognise numbers in the environment and			
	sequences and describe order	understand and use them in conversation			
	MNU 0-02a	I can recognise and identify the number symbols to			
		5			
	I use practical materials and	I can recognise and identify the number symbols to			
	can 'count on and back' to	10			
	help me understand addition				
Ordering Numbers	and subtraction, recording my	I can recognise and identify the number symbols			
	ideas and solutions in different	beyond 10			
	ways	I can order numbers to 5			
	MNU 0-03a	I can order numbers to 10			
Concept of zero		I can order numbers beyond 10			
		I can tell which number(s) comes before or after a			
		number			
Counting numbers		I can explain that zero means there is none of a			
		particular quantity and is represented by the			
		numeral '0'			
		I can count starting at zero			
		When counting, I understand that the number			
		name of the last object counted is the name given			
		to the total number of objects in the group			
		I can count on in ones from a given number			
		I can hold a number in my head and count on			
		I can add two groups (sets) together			
		I can take some away and count how many are left			
		I can count backwards from 5			
		I can count backwards from 10			



## Numeracy Progression Tracker Insert for PLP's



#### Early Level Learning and Development: Numeracy: Number

#### Number and number processes: Concept of zero, Counting

I can explain that zero means there is none of a particular quantity and is represented by the numeral '0'.

I can count starting at zero.

When counting, I understand that the number name of the last object counted is the name given to the total number of objects in the group.

I can count on in ones from a given number.

I can count back in ones from a given number.

I can hold a number in my head and count on.

I can add two groups (sets) together.

I can take some away and count how many are left.

#### Number and number processes: Number recognition, Ordering numbers

I can recognise numbers in the environment and understand and use them in conversation.

I can recognise and identify the number symbols to 5.

I can recognise and identify the number symbols to 10.

I can recognise and identify the number symbols beyond 10.

I can order numbers to 5.

I can order numbers to 10.

I can order numbers beyond 10.

I can tell which number(s) comes before or after a number.

#### Fractions, decimals and percentages Estimation and rounding

I can count a set of objects using 1:1 correspondence to 5.

I can count a set of objects using 1:1 correspondence to 10.

I can count a set of objects using 1:1 correspondence beyond 10.

I can share a collection of objects equally. I can recognise the number of objects in a small group, without counting.

#### Learning At Home

- Sing and say number rhymes together.
- 2. Count at home eg number of plates needed for dinner time
- 3. Count the steps / stairs at home
- 4. When you are out a walk or in the car/bus, play a game of 'spot the number'
- 5. Use the language of size when you can -' is my bowl bigger or smaller than yours?'

#### Count Together!



Community Services: Education @ 2016



# Numeracy and Mathematics Progression Framework – Early Level version

Produced: September 2017

Due for Review: September 2018

Owner: Pauline Inglis/Maria McArthur



# Experiences

### **Activity**

Planning numeracy and mathematical experiences for one learning outcome.





# **Key Messages**

- Numeracy and mathematics are embedded in almost every aspect of our lives and are essential to fulfilling children's potential destinations.
- Across every area and every experience in your setting an aspect of numeracy will be evident.
- When you can identify the numeracy level at child is at you can then look at consolidation through depth and breadth (making connections across other experiences) and progression through challenge.
- You can instil a love of numbers and maths by being enthusiastic about maths and by ensuring that each foundation skill learned is totally secure before considering progression and challenge



# Conclusion

'Mathematics is like childhood diseases the younger you get it the better'

Arnold Sommerfeld.

