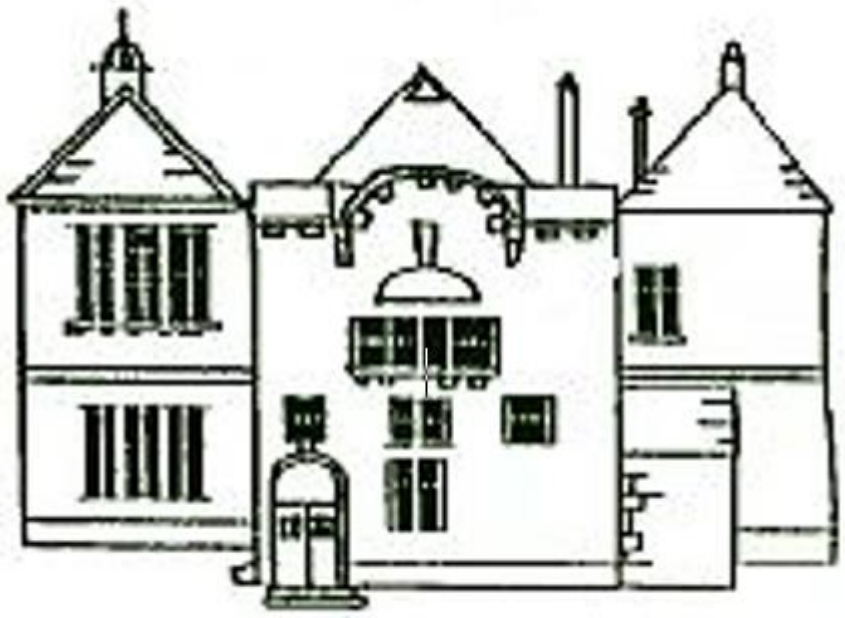
Busby Primary School

Curriculum for Excellence

A Guide for Parents and Carers to Support Learning at Home

NUMERACY
&
MATHEMATICS
EARLY LEVEL



This booklet outlines the skills pupils will develop in Numeracy and Mathematics within the Early Level.

This document makes clear the correct use of language and agreed methodology for delivering Curriculum for Excellence Numeracy and Mathematics experiences and outcomes within the Williamwood Cluster. The aim is to ensure continuity and progression for pupils which will impact on attainment.

We hope you will find this booklet useful in helping you to support your child at home.

Estimating and rounding
I am developing a sense of size and amount by observing, exploring, using and communicating with others about things in the world around me.

Correct Use of Language

Pupils should be familiar with:
tall; short; long; thick; thin; heavy; light.

Comparative terms e.g. shorter, longer.
Superlative terms e.g. shortest, tallest.

Number and number processes
I have explored numbers, understanding that they represent quantities, and I can use them to count, create sequences and describe order.

Term/Definition	**Methodology**
0 **Example**	Make the link clear between "nothing" and zero.

0, 1, 2, 3,… **Correct Use of Language** Say **zero**, one, two, three. **DO NOT USE** "nothing" to refer to the digit. Use "nothing" when using practical examples and concrete materials e.g. 2 cups take away 2 cups leaves nothing.	

Number and number processes *Use practical materials and can 'count on and back' to help me to understand addition and subtraction, recording my ideas and solutions in different ways.*	
Term/Definition Add 1 Subtract 2 **Example** $2 + 3 = 5$ $3 + 2 = 5$ $5 - 2 = 3$ $5 - 3 = 2$ **Correct Use of Language** Pupils should be familiar with the various words for operations: Add – Total, find the sum of, plus, Subtract – Take away moving towards subtract, minus, difference between A wall display should be built up Use "maths" instead of "sums", as sum refers to addition. Use "show your working" or "written calculation" rather than "write out the sum". Try to use the word "calculate".	**Methodology** When one addition fact is known, it is important to elicit the other three facts in terms of addition and subtraction. This is the start of thinking about equations, as 4 + 5 = 9 is a statement of equality between 2 expressions. **Please refer to Algebra Appendix**

Avoid the use of "and" when meaning addition. *(e.g. **NOT** "2 <u>and</u> 3")* Move from "makes five" towards "equals" when concrete material is no longer necessary.	

Fractions, decimal fractions and percentages *I can share out a group of items by making smaller groups and can split a whole object into smaller parts.*	
Term/Definition $\frac{1}{2}$ a cake **Correct Use of Language** Teachers should talk about 1 whole item divided into 2 equal parts e.g. One whole cake divided into 2 equal parts. Use the following terms: share and divide. Be careful when using a half or one half. Say one half or say I have a half of….	**Methodology** Lots of practical working cutting things in half, drawing lines to divide things in two. Set fractions out properly. Use $\frac{1}{2}$ rather than ½ or 1/2.

Money

I am developing my awareness of how money is used and can recognise and use a range of coins.

Term/Definition	**Methodology**
1p **Correct Use of Language** Say one pence or one *p*. With coins refer to a fifty pence piece.	Highlight that 5p = 5 pence etc… Pupils should be aware that one coin can have different values. Show me…5p, 10p. Give children different coins and then ask them to make different amounts

Time

I am aware of how routines and events in my world link with times and seasons, and have explored ways to record and display these using clocks, calendars and other methods

Correct Use of Language

Pupils should be familiar with:

day; night; morning; afternoon; before; after; o'clock; analogue; digital.

Data and analysis

I can collect objects and ask questions to gather information, organising and displaying my findings in different ways.

I can match objects, and sort using my own and others' criteria, sharing my ideas with others.

I can use the signs and charts around me for information, helping me plan and make choices and decisions in my daily life.

Term/Definition

Pictogram: graph using pictures to represent quantity.

Bar chart: A way of displaying data if the data is discrete or non-numerical. There should be a gap between the bars.

Histogram: A way of displaying grouped data. No gaps between the bars.

Example

Pictogram: *The colour of pupils' eyes in a class.*

Bar chart: *Pupils favourite flavour of crisps.*

Histogram: *Number of press-ups pupils can manage in one minute.*

Correct Use of Language

Pictogram: Say pictogram or pictograph.

Bar chart: Use bar graph or bar chart not block graph.

Methodology

When using tally marks, each piece of data should be recorded separately in order. Tallying should be done before finding a total.

Appendix 1: Common Methodology for Algebra

Common Methodology - Algebra

Overview

Algebra is a way of thinking, i.e. a method of seeing and expressing relationships, and generalising patterns - it involves active exploration and conjecture. Algebraic thinking is not the formal manipulation of symbols.

Algebra is not simply a topic that pupils cover in Secondary school. From Primary One, pupils **lay the foundations for algebra**. This includes:

Early, First and Second Level

- Writing equations e.g. 16 add 8 equals?
- Solving equations e.g. 2 + □ = 7
- Finding equivalent forms

e.g. 24 = 20 + 4 = 30 – 6

24 = 6 × 4 = 3 × 2 × 2 × 2

- Using inverses or reversing e.g. 4 + 7 = 11→ 11 – 7 = 4
- Identifying number patterns

Early/First Level - Language

4 + 5 = 9 is the start of thinking about equations, as it is a statement of equality between two expressions.

Move from “makes” towards “equals” when concrete material is no longer necessary. Pupils should become familiar with the different vocabulary for addition and subtraction as it is encountered.