



# BUGLAWTON PRIMARY SCHOOL

*Be the Best We Can*

## Mathematics Policy

<b>Members of staff responsible:</b>	<b>Miss A Kennerley</b>
<b>Governor Committee:</b>	<b>Teaching and Learning</b>
<b>Date approved:</b>	<b>Autumn 2017</b>
<b>Date to be reviewed:</b>	<b>Autumn 2020</b>

### INTRODUCTION

This policy outlines the teaching, organisation and management of the mathematics taught and learnt at Buglawton Primary School. The school's policy for mathematics is based on the Programmes of Study for Mathematics in the 2014 National Curriculum (see appendix 1). The implementation of this document is the responsibility of all teaching staff.

### OUR AIMS

Buglawton Primary School aims to provide pupils with a mathematics curriculum and high-quality teaching to produce individuals who are:

- numerate
- creative
- independent
- inquisitive
- enquiring
- problem solvers
- confident

### OUR CURRICULUM

All our objectives come from the National Curriculum 2014. In addition, we implement the ideas of Big Maths into our teaching. Big Maths is a teaching programme which shares our school aim for children to become numerate and have a real sense of number.

- The objectives are clearly matched to the new 2014 National Curriculum objectives for Maths
- It improves mental maths skills and confidence by making the basics more routine, through the whole school
- There is a strong emphasis on developing instant recall of number facts, including number bonds and times tables and will help us ensure that all children have a solid recall of key number facts by the end of Year 4

- Common methods are used throughout the school
- Common language is used throughout the school
- Formal written methods are introduced and taught in a progressive way
- Children are aware of what the 'next step' is and how attainable that is
- Prior learning is built on and ensures children can use and apply their knowledge to something 'trickier'
- The characters (Pom, Pim, Squiggleworth, Mully, Count Fourways, Speedy Col & Super-Fab), songs and activities help to make maths fun

## **A TYPICAL LESSON**

To provide adequate time for developing numeracy skills each class teacher provides a daily mathematics lesson. This will usually last for 60 minutes.

Every mathematics lesson begins with a 20 minute CLIC session (see appendix 2, 3 & 4). This is then followed by teaching input (which may include an aspect of CLIC). Children are then given time to practice and consolidate their learning. During this time, teachers may use mini-plenaries to check understanding. The plenary should give pupils an opportunity to demonstrate and reflect upon their learning.

## **PLANNING AND TEACHING APPROACHES**

The children will be taught using the National Curriculum 2014. Teachers will plan lessons according to the new curriculum on a common format agreed by all staff. Approaches will be varied, reflecting the individuality of the teachers, but emphasis will be placed upon providing challenge, thought provoking, relevant and enjoyable work. A wide variety of methods will be used including whole-class, smaller group, teacher focus group and one to one teaching. Planning should indicate clear differentiation in order to individualise learning for different pupils.

A sense of enquiry will be fostered through open-ended investigative tasks, practical activities and the application of the child's mathematical skills and knowledge. Cross-curricular links with other subjects will be used to reinforce this area. We recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. We use accurate mathematical vocabulary in our teaching and children are expected to use it in their verbal and written explanations.

All children will be given a set of Learn Its (appendix 3). These are a maximum of three number facts that they must be able to instantly recall.

A calculation policy will be developed to reflect the progression in mental and written column methods in the Big Maths document and the expectations in the National Curriculum 2014.

Children that are working below Age Related Expectations and those not making at least satisfactory progress will be targeted for intervention. Question level analysis should be used along with diagnostic tests to ascertain gaps in knowledge in order to plan and provide bespoke intervention sessions.

## **MARKING**

Maths books should be marked in detail as appropriate to the task and show moving on statements. The codes VF (verbal feedback), G (guided) or I (independent) may be used as appropriate to annotate work.

Marking should:

- *Show children what they have done well*
- *make clear what children need to do to improve*
- *Enable children to make visible signs of improvement as a consequence of the marking*

Moving on statements in marking of maths should take the form of the following:

1. A challenge (*An extension of successful previous learning*)  
**“Can you do  $234 + 832$ ?”**
2. Reminder (*Identifying small computation errors required to correct a mistake*)  
**“Do you think there is anything missing in this calculation?”**
3. Steps / Instructions (*An error using steps to success needs to be reinforced before the whole task can be completed*)  
**“You got stuck on step 1”      “Can you put these numbers in order?    23 34 12 83 9”**
4. Example (*To model an expected outcome*)  
**“Here is how I did a calculation like yours”    “Where would you put the decimal point in your calculation?”**

Pupils need to be given regular response time to address any corrections or next steps.

### **MASTERY**

The maths subject leader has been part of a White Rose Maths Hubs for the past year to develop their knowledge of maths mastery. This has been introduced to the whole staff but is ongoing and work in this area will continue over the next academic year.

### **PRESENTATION IN BOOKS**

Children should be encouraged to take pride in the appearance of their work in maths. Recording of learning may include written, oral (then scribed by adult) or photographic evidence.

### **HOMEWORK**

All children will receive weekly mathematics homework. Both the amount of homework given and anticipated completion time will increase as children move through the year groups. Homework may be differentiated according to the needs of the children. Homework activities may allow pupils to practice and consolidate their skills and knowledge, develop and extend their techniques and strategies, or prepare for their future learning.

All children will be given a set of Learn Its (appendix 3). These are a maximum of three number facts that they will be working on for a minimum of three weeks at a time and must be able to instantly recall.

### **LINKS BETWEEN MATHEMATICS AND OTHER SUBJECTS**

Mathematics contributes to many other subject areas in the primary curriculum and opportunities are given to draw mathematical experience out of a wide range of activities. This allows the children to use and apply mathematics in real context. Teachers are encouraged to make links where possible in mathematics lessons to the context of the current class topic.

### **INFORMATION AND COMMUNICATION TECHNOLOGY**

All teachers are encouraged to use ICT to enhance teaching and learning in mathematics where appropriate. Every classroom is equipped with an Interactive Smartboard and all pupils have access to netbooks and tablets. Opportunities will be provided for the children to apply and develop their ICT capabilities in mathematics through:

- ❖ mathematical software installed on our network (Maths Packs, Numbershark, Primary Games) ❖
- web-based games and software

- ❖ floor turtles
- ❖ databases, spreadsheets and graph plotting programmes

## **RESOURCES**

Each classroom is stocked with daily mathematical equipment: manipulatives and visuals to support pupils' learning. Teachers should plan for these to be regularly used during lessons. Children should also be encouraged to independently select resources that will help them with their understanding of mathematical concepts. A range of mathematical equipment for measuring and geometry work is located centrally in the mathematics cupboard in the staffroom. Our resources have recently been audited which has led to an increase in the number of resources available.

Every classroom needs to have a learning wall for maths which should support the current learning.

Every teacher has a copy of the Big Maths Teacher Guide and access to a range of interactive resources to use within CLIC sessions. Interactive whiteboards and Espresso mathematics software are available for use in every teaching area, as are PCs and the Netbooks/Tablets for the children's use.

## **ASSESSMENT AND RECORDING**

The assessment and recording of achievement and coverage will be ongoing throughout the year. Formal assessments will be carried out at the beginning of the autumn term as a baseline, later in the autumn term, the spring term and finally in the summer term. This data, alongside Teacher Assessments will be reported to the Headteacher and Maths Subject Leader. These will be recorded onto pupils tracking data sheets (SIMS) by each class teacher and progress will be closely monitored. Children in Foundation Stage and Year 1 may be assessed less formally. Teacher Assessment judgments are monitored and may be moderated by the SLT and Subject Leader. Daily teacher assessments will inform the short term planning whilst the formal assessments will be used for medium term planning, target setting and grouping of children within teaching groups.

**Analysis of results to inform teaching and learning and feedback to children on their next steps is crucial.**

## **COMMUNICATION**

There will be two parents' meetings a year in the Autumn and Spring terms to update parents with information about progress and attainment. Specific curriculum targets may also be set and shared based on analysis of assessments. There will also be an annual report to parents at the end of each academic year. The Subject Leader will keep up to date with the current teaching approaches and initiatives, communicating changes to staff through staff meetings.

## **ROLE OF THE SUBJECT LEADER:**

- ensure that teachers are familiar with the Programmes of Study for Mathematics and advise/support them to plan appropriate lessons
- analyse and monitor data about pupil progress
- monitor teaching and learning through lesson observations, monitoring of planning and book scrutiny
- lead by example in the way they teach in their own classroom
- teach demonstration lessons
- prepare, organise and lead INSET with the support of the Headteacher
- work co-operatively with the SENCO
- observe colleagues with a view to identifying the support that they may need
- attend regular INSET to keep up to date
- keeps parents informed about Mathematics at Buglawton

- discuss regularly with the Headteacher and the link governor for maths the attainment and progress of maths throughout the school
- positively promote the subject

**Signed:**

**George Hayes**  
**Chair of Governors**

**John Mollard**  
**Headteacher**

Appendix 1  
Maths at Buglawton: National Curriculum Year Group Overview

Appendix 2  
Big Maths at Buglawton: Teaching Order/Objectives

Appendix 3  
Big Maths at Buglawton: Learn Its Teaching Order

Appendix 4  
Big Maths at Buglawton: Guide for Parents & Carers