



# Walter Infant School

## MATHEMATICS POLICY

### DOCUMENT HISTORY

Version	Action	By	Date
3.0	Draft	Fiona Prickett, Mathematics Lead	December 2016
3.0	Approved	Full Governing Body	2 February 2017
3.1	Draft	Fiona Prickett, Mathematics Lead	September 2017
3.1	Approved	Full Governing Body	21 <sup>st</sup> Nov. 2017

**Next Review Date: Autumn 2019**

## 1. INTRODUCTION

### **Our Walter Infant School Policy is in line with the 2014 National Curriculum**

The teaching of mathematics in our school reflects the main aims and objectives of the 2014 National Curriculum. This policy is a statement of the school's agreed approach to the teaching of the Mathematics Curriculum. It is to inform teachers, support staff, governors, parents/carers and the school community.

At Walter Infant School by the end of Year 2, or Key Stage 1, our aim is for our children to be '*Junior School Ready*'. We want our children to leave Walter Infant School being able to solve mathematical problems by using and applying the skills and knowledge they have developed. Best practice approaches have been adopted by the school to facilitate Quality First Teaching (QFT). This policy outlines the teaching of Mathematics at Walter Infant School. Our school's motto is '*To be the best I can be*', and for this reason we want our children to leave our school being the best possible mathematician.

The principal focus of mathematics teaching in Key Stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, moving from concrete experiences to pictorial representation and finally the abstract (recording).

Pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary.

Pupils will also be taught using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

## 2. AIMS

- To enable the children to become happy, confident, numerate pupils who enjoy tackling mathematical problems.
- To raise the profile of mathematics, ensuring the children recognise its place as a key life skill.
- To raise standards through a direct and interactive teaching approach.
- To secure high standards through effective teaching and learning throughout the school.
- To use IT effectively to aid the planning, delivery and evaluation of units of work.
- To ensure all our children become **fluent** in the fundamentals of mathematics, through varied and frequent practice so that they have the ability to recall and apply knowledge rapidly and accurately.
- To ensure all our children are able to **reason mathematically** by following a line of enquiry and using appropriate mathematical vocabulary.
- To ensure all our children can **solve problems** by applying their mathematics to a variety of problems and to persevere when seeking solutions.

### **3. OBJECTIVES**

#### **3.1 Children will:**

- Take part in a daily mathematics lesson.
- Spend a high proportion of this time in a whole class interactive teaching situation.
- Spend a large amount of time focussing on mental calculation strategies.
- Be given the opportunity to explain their mathematical thinking through oral communication and informal recording methods.
- Make appropriate use of IT to support their learning.
- Be encouraged to supplement their learning at home through informal mathematical activities and games where appropriate.

#### **3.2 Teachers will:**

- Ensure they have high expectations for all their pupils.
- Closely follow the specific learning objectives for the units of work being followed each week and set out in the medium term plans.
- Carry out regular assessments.
- Monitor pupil progress closely and adapt their teaching accordingly.
- Keep records of individual pupil progress.
- Begin each lesson with a short oral/mental starter.
- Include a main teaching activity in each lesson.
- Finish each lesson with a planned and purposeful plenary to review learning and indicate meaningful next steps.
- Ensure their classrooms are suitably equipped to deliver a daily mathematics lesson.

### **4. ORGANISATION AND TEACHING METHODS**

The children are taught in class groups across the whole of Key Stage One. They undertake a wide range of practical activities for individuals, pairs, groups or the whole class, as appropriate to the task.

LSAs are used constructively within the daily mathematics lesson, supporting groups or individuals and assisting the teacher through reinforcement and monitoring activities.

### **5. HOMEWORK**

There is no formal mathematics homework set in school. However, children are encouraged to visit the Active Learn website through our school Learning Platform to access games and activities that directly match the objectives being taught in school. New games are added regularly and are an excellent resource for reinforcing concepts and allowing the children opportunities to practise at home.

## **6. PLANNING AND ASSESSMENT**

Teachers work collaboratively in teams to produce weekly plans using the units of work set out in the National Curriculum. These plans are then adapted to meet the specific needs of the children in each class as the week progresses. The plans are produced using a common format across Key Stage One (Appendix 1).

The work is differentiated to meet the needs of the children from their starting point or learning requirement. The children will work in small groups within the classroom, these groups may be guided, supported, or working independently depending on the specific need with appropriate resources to support the learning.

Teacher assessment judgements are recorded at the end of each unit of work to aid the tracking and monitoring of the progress of individuals and groups of children. These judgements relate to the progress the children are making towards our agreed end of year Age Related Expectations (ARE).

Formative assessments (AfL) are carried out on a daily basis, informing planning, suitability of activities and appropriate levels of support.

The children in Year 2 take the end of Key Stage One SATs in the summer term to help the teachers make their final teacher assessment judgements. These tests comprise of an arithmetic test and a separate reasoning test.

## **7. FOUNDATION STAGE**

Mathematics in Foundation Stage is taught in line with the most up to date Curriculum Guidance for the Foundation Stage. This guidance covers important aspects of mathematical understanding and provides the foundation for numeracy.

Further detail can be found in the Foundation Stage Policy.

## **8. INCLUSION**

All our children at Walter Infant School are entitled to *Quality First Teaching*. We aim to provide for all children so that they achieve as highly as they can in mathematics according to their individual abilities. We will identify which pupils, or groups of pupils are under-achieving and take steps to improve their attainment. Children working at 'Greater Depth' (exceeding age related expectations) will be identified and suitable learning challenges provided. Differentiation is key to allowing all children to achieve across a range of abilities.

## **9. EQUAL OPPORTUNITIES**

Walter Infant School wants every child to succeed and to be the best they can be, regardless of their background or circumstances. Children learn and thrive when they are healthy, safe and engaged. In order to engage all children, cultural diversity, home languages, gender and religious beliefs are all celebrated. A wide range of equipment and other resources should be considered which represent the diversity and backgrounds of all our children. We believe in valuing what the child

brings to school and recognise the importance of supporting a child's first language, not only to foster self-esteem, but to assist in the learning of mathematics.

## **10. ROLE OF SUBJECT LEADER**

The Subject Leader is responsible for improving the standards of teaching and learning in mathematics through:

- monitoring and evaluating mathematics, which includes:
  - pupil progress
  - provision of mathematics
  - and the quality of the Learning Environments
- taking the lead in policy development
- auditing and supporting colleagues in their CPD
- advising on resources
- keeping up to date with recent mathematics developments

## **11. Monitoring and Review**

Monitoring of the standards of teaching and learning in mathematics is the responsibility of the Mathematics Leader. The work of the coordinator also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject and providing a strategic lead and direction for the subject in school. Each year progress is reviewed and any new strategies are included and implemented in the School Development Plan. The named governor responsible for mathematics meets regularly with the subject leader in order to discuss strategic direction and review progress.

## **12. Related Documents and Abbreviations**

The 2014 National Curriculum  
Abacus Active Learn (online)  
School Equal Opportunities Policy  
School Special Educational Needs and Inclusion Policy  
School Early Years Foundation Stage Policy  
School Development Plan

LSAs    Learning Support Assistants  
AfL     Assessment for Learning  
SATs   Standard Assessment Tests  
AREs   Age Related Expectations

### **TO BE READ IN CONJUNCTION WITH:**

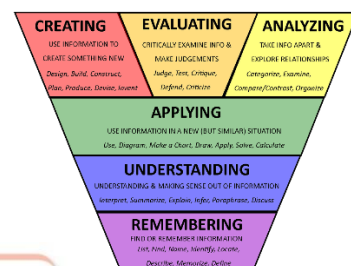
- **The Early Years Foundation Stage Policy**
- **The English Policy**
- **The Teaching and Learning policy**
- **The National Curriculum**

## Appendix 1 – Agreed Planning Format for Key Stage One



# Walter Infant School

## Maths Planning



<b>Class:</b>		<b>Unit Duration:</b>	
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<b>SEN</b>	
<b>PPG</b>	
<b>EAL</b>	

<b>Unit outcomes taken from the Assessment Framework (links to SIMS)</b>

<b>National Curriculum Mathematics PoS and Objectives</b>
<b>Number and Place Value</b>
<b>Calculation</b>
<b>Fractions and Decimals</b>
<b>Measures</b>
<b>Geometry</b>
<b>Statistics</b>

<b>Monday (date)</b>		
<b>Intended Learning Outcome and Success Criteria</b>		
<b>Lesson Introduction and Outline including AfL/Key Questions (what, who, when, why, where and how)</b>		
<b>Differentiated Group Activities Concrete ► Pictorial ► Abstract</b>		
<b>Group 1</b>	<b>Group 2</b>	<b>Group 3</b>
<b>Plenary including AfL/Key Questions and Feedback (what, who, when, why, where and how)</b>		