



**St Margaret's**

**Anfield CE Primary School**

NAME OF POLICY: Maths Policy

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PRODUCED BY: R. King

**DOCUMENT STATUS**

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### Introduction.

Mathematics teaches children how to make sense of the world around them through developing their ability to use number, calculate, reason and solve problems. It helps children to understand relationships and patterns in both number and space in their everyday lives. The Mathematics curriculum should be bold, provide breadth and balance and be relevant and differentiated to suit the needs of all children at St. Margaret's Anfield. It should be flexible, motivating all pupils, thus encouraging success at all levels.

### Aims.

The 2014 national curriculum for Mathematics aims to ensure that all pupils:

- Become **fluent** in the fundamentals of Mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **Reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can **solve problems** by applying their Mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

### The National Curriculum.

The 2014 National Curriculum programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

## **Teaching and Learning of Mathematics.**

### **Foundation Stage:**

Our Foundation Stage teachers use the Early Years Foundation Stage Curriculum to support their teaching of Mathematics in the Foundation Stage.

The children have the opportunity to talk and communicate in a widening range of situations and to practice and extend their range of vocabulary and mathematical skills. The children explore, enjoy, learn about, and use Mathematics in a range of personalised situations. Mathematics is planned on a weekly basis and assessed using the criteria from the Early Learning Goals. Mathematics is taught both as a discrete subject (20-30 minutes per day) and within the whole Early Years Curriculum to give children opportunities to use their mathematical skills in real life situations.

## **The National Curriculum Programmes of Study.**

### **Key Stages 1 and 2:**

Our Key Stage 1 and Key Stage 2 teachers use the Liverpool Local Authority year group medium term plans alongside the National Curriculum to support their planning and delivery of Mathematics teaching. At St. Margaret's Anfield we also follow our Calculation Policy (which has been written in line with the Local Authority Calculation Policy) to ensure we are teaching the methods in a progressive order for the four operations. The short term planning is done weekly, showing the specific learning objectives that are to be covered and the children's age-related activities in each class for each lesson that week. Teaching and learning is differentiated to best match the needs of the class and the individuals within it.

If the needs of the children are best met following an alternative plan, which deviates from the National Curriculum 2014, then the class teacher, Phase Leader and Maths Leader will discuss this and decide on a way forward. Children in Key Stages 1 and 2 are taught Mathematics in mixed ability class groups for 1 hour every day. At the beginning of each Mathematics lesson, all children undertake an Oral/Mental Starter activity: 4 a-day, number of the day, a revision question, rapid recall of times tables or basic skills.

Teachers at St. Margaret's Anfield regularly share children's excellent work both with the Maths Leader and the Head and Deputy Head teacher. In addition to this, children also share excellent work during our weekly celebration assembly.

### **Calculation Policy.**

Teachers follow our school Calculation Policy which has been written in line with Liverpool's Local Authority Calculation Policy.

Our Calculation Policy explains the key written methods that need to be taught in each year group, to support the planning, delivery and assessment of learning and teaching in Mathematics and to ensure consistency and progression across the School.

### **Cross curricular.**

Opportunities are used to draw mathematical experiences out of a range of activities in other subjects, such as in PE, Science and other subjects studied to enable children to apply and use Mathematics in both real life and academic contexts.

During registration time children are also engaged in Number of the Day and Mathematical Early Work activities on a daily basis to give the children practice and time to apply what they have learnt in short sessions.

### **Planning.**

As a school, we follow the Medium Term Plans set out by School Improvement Liverpool. Each year group plans daily lessons covering the following topics.

	Y1	Y2, Y3, Y4	Y5	Y6
Autumn: 1A	Number - number and place value	Number - number and place value - addition and subtraction	Number - number and place value - addition and subtraction	Number - number and place value - addition and subtraction, multiplication and division
Autumn: 1B	Number - addition and subtraction	Number - multiplication and division fractions	Number - multiplication and division fractions (including decimals and percentages)	Number - fractions, decimals and percentages - ratio and proportion - algebra
Spring: 2A	Number - multiplication and division - fractions	Measurement	Measurement	Measurement
Spring: 2B	Measurement	Geometry - properties of shapes - position and direction	Geometry - properties of shapes - position and direction	Geometry - properties of shapes - position and direction
Summer: 3A	Geometry - properties of shapes - position and direction	Statistics	Statistics	Statistics
Summer: 3B	Revision	Revision	Revision	Revision

Springboard Sessions.

Children who are highlighted in Years 5 and 6 have weekly Springboard sessions with Mrs Hayes (HLTA) to aid and equip them to grasp the basic skills in Mathematics. This is to help the children make progress in Maths and hopefully achieve their age related expectation by the end of the academic year/Key Stage.

### **Computer Programs.**

At St. Margaret's Anfield, we use RM Easimaths to aid children's number agility in Mathematics.

The **RM Easimaths** computer program is designed for children to use on a daily basis to improve their number agility and understanding of the Maths curriculum. The children have been allocated below (B), working at (W) or secure (S) within their year group and the program entails a variety of games for the children to play. The games will both secure the children's level of understanding and challenge them further into a deeper understanding of particular Mathematics concepts.

### **Resources.**

The use of Mathematics resources is integral to the teaching and learning of Mathematics and thus planned into our teaching and learning in this subject.

We have a wide variety of quality equipment and resources, both tangible and computer based, to support our teaching and learning.

These resources are used by our teachers and children in a number of ways which help to demonstrate/model an idea, an operation or method of calculation.

### **Homework.**

Mathematics homework is set for children in Reception - Year 6 each week. All homework is handed out on a Monday and collected in on Friday.

Homework is given out to provide opportunities for children to practice and consolidate their skills and knowledge; develop and extend their techniques and strategies; and prepare for their future learning through out of class activities and homework.

### **Parents/Carers.**

St. Margaret's Anfield School aims to involve parents/carers in their children's learning as much as possible and to inform them regularly of their child's progress in Mathematics. Parents/carers have the opportunity to meet with child's class teacher at least twice a year at Parent Consultation Meetings and receive written reports at the end of the academic year. Parents/carers are encouraged to speak to their child's teacher at any point during the year, either informally or by making a specific appointment. Parents/carers are encouraged to support their children with homework.

### **Subject Leader.**

The role of the Maths subject leader is to provide professional leadership and management in Mathematics in order to secure high quality teaching, effective use of resources and high standards of learning and achievement for all pupils.

This will be achieved by affecting the following key areas:

- Strategic direction and development;
- Teaching and learning (including planning, marking and presentation)
- Leading and managing staff;
- Efficient and effective deployment of staff and resources.

The Subject Leader has regular discussions with the Head Teacher, SLT and school governors about the teaching and learning in Mathematics. All school leaders will be an integral part of our half-termly progress and attainment meetings highlighting the strengths and areas for development within the subject.

### **Assessment, Record Keeping and Reporting.**

Children's standards and achievements in Mathematics are assessed in line with the School's Assessment Policy. Assessment in Mathematics for Years 1-6 includes:

1. Marking of children's work for all written work including what the children have done well and clear next steps and/or targets to consolidate or progress the child's Mathematical understanding.
2. Throughout the term, all teachers are expected to make assessments of pupil's achievements against the National Curriculum Programmes of Study through the use of our internal assessment data entry grids. Teachers then use O.Track at the end of every term to assess children in Mathematics using 'B, WC, WB, WA, OT or Above' according to the child's attainment and achievement in Mathematics.
3. All year groups will take part in termly pupil progress meetings with the Deputy Head.

Children's standards and achievements in Mathematics in the Foundation Stage are assessed in line with the School's Foundation Stage Policy. Assessment in Foundation Stage includes both on-going assessment and marking of children's work as noted above but at an age appropriate level. The Foundation Stage Profile is used to assess children throughout and at the end of the academic year.

Formal assessments specific to year groups:

Year	Assessments
Foundation stage	Attainment on entry Attainment on exit
Year 1	Baseline tests - all children Teacher assessment and sampling testing throughout the academic year End of year tests - all children
Year 2	Baseline tests Testing throughout the academic year KS1 end of year SATs
Years 3, 4, 5	Baseline - all children Teacher assessment and sampling testing throughout the academic year End of year tests - all children
Year 6	Baseline tests Testing throughout the academic year KS2 end of year SATs

**Monitoring and Review.**

The Head teacher, Senior Leadership Team and Mathematics Subject Leader will monitor the effectiveness of this policy on a regular basis. The Head teacher and Mathematics Subject Leader will report to the Board of Governors on the effectiveness of the policy at least annually and, if necessary, make recommendations for further improvements.

Policy Written by: R. King

To be reviewed: *Governors' meeting in  
Autumn Term 2017.*