



## Mathematics Policy

Date Agreed by Governors: \_\_\_\_\_

Review Date: \_\_\_\_\_

Signed: \_\_\_\_\_ (Chair of Governors)

Signed: \_\_\_\_\_ (Headteacher)

## Introduction

This policy outlines the teaching, organisation and management of the mathematics taught and learnt at Sherdley Primary School. The school's policy for mathematics is based on the 2014 Curriculum and teachers follow the AREs for their year group. The policy has been written by the subject leader and has the full agreement of the Governing Body. The implementation of this policy is the responsibility of all the teaching staff.

## Aims

We want to develop:

- Positive attitudes towards mathematics and confidence when solving mathematical problems
- An ability to think clearly and logically
- An understanding of mathematics through enquiry, experience and discovery
- Curiosity, perseverance and accuracy
- An awareness of the 'real life' applications for mathematics
- An ability to discuss mathematical problems and concepts using correct mathematical vocabulary – confidently

## Teaching of Mathematics

### Lessons

To provide adequate time for developing mathematics skills and knowledge, each class teacher will provide a daily mathematics lesson. This may vary in length but will usually last for at least 45 minutes in KS1 and an hour in KS2. Y1 children have a daily Magic Maths session (mental maths) which lasts 15 minutes and from Year 2 -Year 6, our children have a 20/25 minute Arithmetic session which focuses on the Fluency element of the curriculum. The main lesson can then focus on Reasoning and Problem Solving. In our Foundation Stage, children have a daily session of 'Numbers as patterns' in a small group as well as access to the mathematics enhanced provision area. Mathematical adult focused activities are also carried out.

### Mathematics teaching

Mathematics teaching from Y1-Y6 includes the following components:

- Whole class sessions – Reasoning & Problem Solving lessons
- Differentiated activities where applicable (SEND & G&T children)
- Follow up maths problems for the whole class following Teacher Input
- Daily 20/25 minute Magic Maths session/Arithmetic Session
- Weekly times tables test for (Y1–Y6) – moving on to multiplication problems for KS2 children knowing all their tables
- One practical Maths session per week
- Problem Solving question of the week

### Organisation

Fluency (Arithmetic) sessions are delivered daily separately from the main Maths lessons. Inputs will be delivered by the teacher and follow up work will centre around Reasoning & Problem Solving activities. Teachers/LSAs will mark work accordingly following the school's marking policy.

### Calculation Policy

For more detail about the different methods we use to teach addition, subtraction, multiplication and division – please see a copy of our Calculation Policy sheets for each year group. This has been updated to match the 2014 curriculum expectations.

### Links between mathematics and other curriculum areas

Mathematics has links with many other curriculum areas and, where possible, these links are used as teaching opportunities e.g. creating graphs/charts in Science or Computing, looking at data in Geography, etc. This allows the children to begin to use and apply mathematics in real contexts and is an integral part of the mathematics curriculum.

### School and class organisation

Whole class sessions are taught with all children being taught together within their own year group. Problems can be simplified/extended to accommodate SEND/G&T pupils. Teachers assess completed work at the end of every day in preparation for the next session.

### How we cater for more able children:

More able children will be taught within their own year group and given challenges/opportunities to deepen their learning within their year group AREs. This will be done through questioning and independent learning. White Rose schemes, My Mini Maths (KS2) and/or ISeeReasoning resources are also used to develop mathematical challenge for the more able children.

### How we cater for children with particular needs:

The daily mathematics lesson is appropriate for all children. Less able children will be taught within their own year group and given challenges within their year group AREs to develop mathematical skills. When working with the less able children, the teacher will provide opportunities through questioning and independent learning so that the less able children can further develop their mathematical understanding. Intervention/tracking groups are used for children needing a 'boost' to their mathematical journey.

### Pupils with SEN and ISPs

Teachers include all pupils fully in their daily mathematics lessons. We are aware of the range of abilities within our classes and these are catered for through differentiation of tasks/adult support. All children benefit from this approach to mathematical teaching. However, a child whose difficulties are severe or complex may need to be supported with an individualised programme in the main part of the lesson. LSAs will support these children when support is required. However, children are also given tasks to develop independence at an appropriate level.

### In the Foundation Stage

In our Foundation Stage the class is organised to promote social skills and the development of Mathematics covering Numbers and Space, Shape and Measures. The children have a daily session in a small group using the 'Numbers as Patterns' materials. In addition to this, mathematical challenges are offered to the children in the Mathematics Continuous Provision area. Adult focused activities are carried out as well as independent learning.

### Resources

Staff use a variety of teaching resources to aid the delivery of the 2014 Curriculum. We use primarily the White Rose Maths scheme. Further resources that can be used are the Year group Mastery booklets (Y1-Y6), the Progression documents for each mathematical topic, My Mini Maths (KS2), the ISeeReasoning scheme, ICT software, framework resources (e.g. ITPs, Pitch and Expectation questions) and models and images/ practical resources kept in classrooms (number fans, 100 squares, number lines, etc.) If staff request additional resources to assist their teaching of mathematics, these are reviewed before ordering by the subject leader and the Headteacher.

### Computing

Computing will be used in various ways to support mathematical teaching and to motivate children's learning. Computing will involve computers, i-pads and audio-visual aids. They will, however, only be used in a daily mathematics lesson when it is the most efficient and effective way of meeting lesson objectives.

### Assessment

Assessment will take place at 3 connected levels: daily, half-termly and transitionally. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment.

**Daily:** At the end of each lesson, the teacher will assess the needs of the children and will alter the mathematics input groups accordingly.

**Half -Termly:** Across the school from Y1–Y6 Mathematics AREs are highlighted regularly and reported each half term onto the iTrack system. Each Year group also completes a Mathematics Assessment which gives a raw score which, in turn, generates a standardised scale score for each child.

**Transitionally:** The assessments that take place at the end of the academic year allow staff to assess and review the children's progress and attainment. National tests are used for this purpose in Y2 and Y6. Accurate information is then reported to parents and the children's next class teacher.

Data from all year groups is analysed each half-term by the Headteacher/subject leader and appropriate measures are taken to address any issues arising.

Written: September 2020