

St Anne's CE (Aided) Primary School



# **Mathematics Policy**

## Rationale

Following the introduction of the new National Curriculum in 2014 the emphasis has been to ensure that all children:

- Become **FLUENT**
- **REASON** and **EXPLAIN** mathematically
- Can **SOLVE PROBLEMS**

This means that children need to be regularly exposed to opportunities involving increasingly complex problem solving which allows them to apply their mathematics knowledge. In doing so they should be encouraged to develop an argument and line of enquiry which they can prove and justify using mathematical vocabulary. This includes the ability to break down problems, both routine and non-routine, into a series of steps.

## Aims and Objectives

We aim to teach mathematics in a way that:

- Delivers mathematics in line with new National Curriculum guidelines.
- Ensures the delivery of mathematics is filled with cross curricular opportunities.
- Creates a lively, exciting and stimulating environment in which the children can learn mathematics.
- Promotes the concept that acquiring mathematical knowledge and skills provides the foundation for understanding the world around them.
- Develops mental strategies.
- Encourages children to use mathematical vocabulary to reason and explain.
- Allows time for partner talk in order to stimulate and develop a curiosity for mathematics.
- Challenges children to stretch themselves and take risks in their learning
- Creates a sense of awe and wonder surrounding mathematics.
- Ensures children in Key Stage 1 are secure in their understanding of number and number relationships.
- Provides children with the opportunity for low entry-high ceiling challenges.

## Teaching for Mastery

White Rose overviews are used to support a mastery approach to teaching and learning. These have been designed to support the aims and objectives of the new National Curriculum.

The overviews:

- have number at their heart. A large proportion of time is spent reinforcing number to build competency.
- ensure teachers stay in the required key stage and support the ideal of depth before breadth.
- ensure students have the opportunity to stay together as they work through the schemes as a whole group provide plenty of opportunities to build reasoning and problem solving elements into the curriculum.

## Approach

We believe that all children, when introduced to a new concept, should have the opportunity to build competency by taking this approach.

**Concrete** - children should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

**Pictorial** - alongside this, children should use pictorial representations. These representations can then be used to help reason and solve problems.

**Abstract** - both concrete and pictorial representations should support children's understanding of abstract methods.

## **CURRICULUM AND PLANNING**

The Long term planning (LTP) is taken from the White Rose maths hub overviews and their lesson overviews are used to inform Medium Term Plans (MTPs).

The LTP is used as a guidance tool in order to pace out coverage of the curriculum throughout the year. Teachers are encouraged to use professional discretion when deciding on how long is needed on particular curriculum area whilst ensuring all objectives are covered by the end of the academic year.

Short term planning (STP) is recorded each week on standard planning sheets. These plans outline the topic area /focus with specific learning challenges to be taught that week. Part of the short term planning reference what concepts will be revisited from previous lessons

Across a range of lessons children should be allowed to engage in mathematical discussion (talk partner or group work), investigations, problem solving, practical experiences and written methods, as well as allowing for time to demonstrate their understanding through gap tasks.

Children will be provided with feedback either verbally or through written marking. Often, in order to clarify understanding of a concept, children will be set extra challenges, but not for every lesson; these should be completed by the children at the next earliest opportunity after the lesson. Children will respond to their feedback in purple pen.

## **TEACHING AND LEARNING**

### **Foundation Stage**

The programme of study for the Foundation stage is set out in the EYFS Framework 2012. Mathematics involves providing children with opportunities to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems; and to describe shape, spaces and measures.

### **Key Stage 1 and 2**

Children are taught daily maths lessons. Part of the lesson will be dedicated to recapping on previous learnt concepts before completing fluency, reasoning and problem solving activities.

Highly-skilled Teaching Assistants are used effectively in lessons to support children whole class, small groups and one-to-one.

**Times tables** are taught daily. Expectations for each year group are as follows.

**Year 1** – Count in multiples of 2, 5 and 10. Recall and use all doubles to 10 and the corresponding halves.

**Year 2** – Recall and use multiplication and division facts for the 2, 5, 3 and multiplication tables, including recognising odd and even numbers.

**Year 3** - Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.

**Year 4** - Recall and use multiplication and divisions facts for multiplication tables up to 12x12

**Year 5** – Revision of all times tables and divisions facts up to 12 x 12

**Year 6** – Revision of all times tables and divisions facts up to 12 x 12

As a school we have subscribed to TimesTables Rockstars to support practise and learning of times table facts.

**Arithmetic.** Children from Year 1 up have a weekly arithmetic test. This will consist of 15- 20 questions per week.

**Key Skills** – children are given maths key skills work to complete on a weekly basis. Teachers will mark and mathematical gaps that arise from these that can be addressed with individuals, groups or the whole class at the earliest opportunity.

### **Assessment**

Target Tracker is our system for assessment. This serves to record attainment and progress for every child. The system contains steps directly related to the National Curriculum 2014. It is used by classteachers, Senior Leaders and Governors to measure the performance of the school against national expectations. It records attainment and progress for all our children and informs target setting. It is used to analyse the performance of different groups of pupils and as a tool in Teacher Appraisal. Each Band represents a year group age related expectations. For example. Band 3 is Year 3. Within each Band progress is measured through the following scale:

b (beginning)    b+ (beginning +)    w (within)    w+ (within +)    s (secure)    s+ (secure +)

A child working within a Band is working within age related expectations. A child working at secure + is above age related expectations.

### **Monitoring**

The Curriculum leaders, alongside SLT, are responsible for monitoring and evaluating curriculum progress. This is done through book scrutiny, planning scrutiny, lesson observations, pupil interviews, staff discussions and audit of resources.

### **Displays**

Each classroom should have a Maths Working Wall display relating to current work. The mathematics display should be updated regularly to reflect the pace of learning. Displays can include: key vocabulary, children's work, teacher modelling, visual prompts and questions to develop reasoning skills

### **Equalities**

As a staff, we endeavour to maintain an awareness of, and to provide for, equal opportunities for all our pupils in mathematics. We aim to take into account cultural background, gender and SEND, both in our teaching attitudes and in the published materials we use with our pupils. All governors and staff recognize our duties under the Equality Act 2010 to:

- Eliminate discrimination, bullying and harassment aimed at protected characteristics as defined in the Act.
- Promote equality of access and opportunity within our school and within our wider community.

- Promote positive attitudes to difference and good relationships between people with different backgrounds, genders, cultures, faiths, abilities and ethnic origins.

In line with our Behaviour/Anti-Bullying Policy we deal firmly with derogatory language aimed at protected characteristics. We ensure our environment is as inclusive as possible and our resources reflect the diversity in our society.

### **Additional Needs**

**More Able Pupils** will be taught with their own class and challenged through differentiated work and extra challenges. When working with the whole class, teachers will direct higher order questions to the more able.

**Interventions:** When necessary additional materials will be used to support children with gaps in their mathematical understanding or who are in need of additional mathematical input.

**Special Educational Needs:** Teachers will include all pupils fully in their daily mathematics lessons. Teachers will differentiate to meet the needs of such pupils and use Teaching Assistants to support such pupils where appropriate. However, a pupil whose difficulties are severe or complex may need to be supported with an individualised programme.

### **Reporting and Parental Involvement**

At St. Anne's Primary School, we encourage parents to be involved by:

- Inviting them into school twice yearly to discuss the progress of their child.
- Inviting parents into school in the summer term to discuss the yearly report.
- Be actively involved in their children's mathematical learning in school and at home.
- Informing them twice yearly with an interim report and with an annual report at the end of the academic year
- In all year groups a weekly newsletter is sent home to summarise what the children have been learning and what they will be learning in the following week.

At the end of the Foundation Stage the children's Learning Journeys will be sent home. In addition to this a copy of the children's Profile will also be sent home to parents.

End of year reports inform parents about their child's achievement against age related expectations using a banding system. A booklet is included in the report which explains parents what they end of year expectations are.

### **Role of the Mathematics Curriculum Leader**

The Mathematics Curriculum Leader is responsible for co-ordinating mathematics through the school. This includes:

- Ensuring continuity and progression from year to year group.
- Advising and supporting colleagues in the implementation and assessment of mathematics throughout the school.
- Keeping the written policy up to date.
- Analysing results, and identifying areas of strength and weakness so that clear targets can be set to improve and sustain pupil achievement.
- Keeping the Headteacher fully informed.
- Monitoring standards in mathematics across the school through classroom observation, work scrutiny, teachers' planning, data analysis and discussion with the children and teachers.
- Being aware of national developments in mathematics through reading relevant materials and attending courses where appropriate.
- Keeping the Mathematics Governor informed and up to date with relevant information.

### **Role of Class Teacher**

- To ensure progression in the acquisition of mathematical skills with due regard to the National Curriculum for mathematics.
- To develop and update skills, knowledge and understanding of mathematics.
- To identify INSET needs in mathematics and take advantage of training opportunities.
- To keep appropriate and agreed on-going records.
- To plan effectively for mathematics using the agreed planning format.
- To link the children's learning to the national curriculum statements in red ink.
- To inform parents of pupils' progress, achievements and attainment.
- To ensure pupils' attainment results are given to the headteacher.

### **The Role of the Headteacher**

- To support the Mathematics Leader in leading, managing and monitoring the implementation of the framework, including monitoring teaching plans and the quality of teaching in the classrooms.
- With the Mathematics Governor, keep the governing body informed about the progress of mathematics in our school.
- Deploy support staff to maximise support for the framework and the children's attainment.

### **Governing Body**

At St Anne's Primary School we have an identified governor for mathematics. The Mathematics Governor should be aware of standards in mathematics as well as an understanding of what the school is achieving well in or what needs to be improved. The Mathematics Governor may visit the school to talk with the Mathematics Curriculum Leader.

### **Conclusion**

This policy also needs to be in line with other school policies including:

Presentation Policy  
Assessment Policy  
Feedback Policy  
Special Educational Needs Policy  
Computing Policy  
Homework Policy  
Equal Opportunities Policy