SWINTON QUEEN PRIMARY SCHOOL

Policy Statement for Mathematics

Co-ordinator: Miss. S. Gray

Introduction

This document is a statement of the aims and principles for teaching and learning in the subject of Mathematics at Swinton Queen Primary School. It was developed to aid the implementation of the National Curriculum for Mathematics combined with the vision of the school, for a meaningful and creative curriculum, which engages children of all abilities and learning styles.

As one of the core subjects within the National and school curriculum Mathematics will be taught for a minimum of 45 minutes during each school day, depending on the age and grouping of the children concerned.

Aims

Our aims when teaching Mathematics are as follows:

- To deliver mathematics in a manner which is stimulating, interesting, varied and exciting for all children. In this environment, children should develop a positive attitude and enthusiasm towards the subject. Where possible, mathematics should be taught alongside other subjects so that children can see a clear link and purpose.
- To equip children with a means of communicating information and ideas through the accurate use and understanding of mathematical vocabulary, so that they are able to explain their patterns of thinking and illustrate their methods clearly to others.
- To develop the children's ability to recall number facts quickly and accurately and use appropriate mental and/or written calculation strategies (for specific guidance please refer to our calculations policy)
- To give opportunity and encourage in children the ability to think independently and with an open mind and draw upon former knowledge.
- To enable children to use and select equipment appropriately and accurately.
- To develop the confidence of our children and their ability to apply their mathematical knowledge and skills in a variety of challenging real life situations.
- To develop children's logical thinking and reasoning skills.
- To develop an ability and inclination to work both alone and cooperatively to solve mathematical problems.
- To develop personal qualities such as perseverance, independent thinking, cooperation and self-confidence through a sense of achievement and success.

Mathematics lessons at Swinton Queen Primary School

In all lessons, learning objectives and success criteria are clearly displayed and discussed. The emphasis in lessons is to make teaching interactive and lively, to engage all children encouraging them to talk about mathematics.

Lessons start with an Oral Mental Starter where children practise and recall number facts such as multiplication and division facts, number bonds etc

At Swinton Queen Primary we have adopted a Mastery approach to the teaching and learning mathematics. With this in mind the large majority of pupils progress through the curriculum content at the same pace. Differentiation is achieved by emphasising deep knowledge and through individual support and intervention. The questioning and scaffolding individual pupils receive in class as they work through problems will differ and pupils who grasp concepts rapidly are challenged through more demanding problems which deepen their knowledge further.

Gaps in pupils' knowledge and understanding are identified early. They are addressed rapidly through individual or small group intervention, either on the same day or the next day, which may be separate from the main mathematics lesson, to ensure all pupils are ready for the next lesson.

Long term planning
The National Curriculum for Mathematics 2014, Development Matters and the Early Learning Goals (Number, Shape Space & Measure) provide the long term planning for mathematics taught at Swinton Queen Primary School

Medium term planning
Years 1-6 use the White Rose Maths Hub schemes of learning as their medium term planning documents.
These schemes provide teachers with exemplification for maths objectives and are broken down into fluency, reasoning and problem solving, key aims of the National Curriculum. They support a mastery approach to teaching and learning and have number at their heart. They ensure teachers stay in the required key stage and support the ideal of depth before breadth. They support pupils working together as a whole group and provide plenty of time to build reasoning and problem solving elements into the curriculum.

Short term planning
The above schemes of learning support daily lesson planning. Lessons are planned using a common planning format and are monitored at intervals by the mathematics subject leader. EYFS planning is based on the medium term plans and delivered as appropriate to individual children with thought to where the children are now and what steps they need to take next. All classes have a daily mathematics lesson. Teachers of the EYFS ensure the children learn through a mixture of adult led activities and child initiated activities both inside and outside of the classroom.

Assessment

Assessment is an integral part of teaching and learning and is a continuous process. Teachers make assessments of children daily through;

- regular marking of work
- analysing errors and picking up on misconceptions
- asking questions and listening to answers
- facilitating and listening to discussions
- making observations

These ongoing assessments inform future planning and teaching. Lessons are adapted readily and short term planning evaluated in light of these assessments.

Medium term

Termly assessments are carried out across the school using the assessment materials for each year group provided by the White Rose Maths Hub in line with the schemes of learning. These materials used alongside judgements made from class work support teachers in making an assessment which is then transferred to EMAG which allows progress and attainment to be monitored.

Long term

Year 2 and Year 6 complete the national tests (SATs) in May. Years. 3, 4 and 5 complete optional SATs papers which inform teacher summative judgements in the summer term.

Marking

Marking of children's work is essential to ensure they make further progress. Work is marked against success criteria, in line with the school marking policy, and includes next steps. Children are encouraged to self-assess their work and given time to read teachers' comments and make corrections or improvements. Responses to marking are made as close to the work as possible, ideally at the start of the next lesson.

Parental involvement and homework

Parents have a vital role to play in their child's mathematical development.

Mathematics homework is sent out regularly, once each week in Key Stage One, possibly more frequently in Key Stage Two. This is an opportunity for the child to show some independence in their understanding of an area covered in school, but should also give them the opportunity to explain to their parents the work which they have been covering in class. It may take the form of some calculations, a game to play, some practical work, or finding and researching information to use in class.

Parents are invited to workshops in school where we share ideas about how to support their child in mathematics. There is also a Mathematics section on our school website where parents can access documents and information to support what we do in school.

Equal Opportunities

All children, regardless of their race, sex, religious belief or ability will be given equal opportunities to develop their knowledge, skills and understanding of mathematics. Mathematics is incorporated into a wide range of cross-curricular subjects and we seek to take advantage of the many multi-cultural aspects of mathematics.

Maths and ICT

Our school encourages the use of the Interactive white boards within Numeracy lessons. Various interactive teaching programs have been downloaded on to our laptops and are available to use with the IWB. Appropriate software for databases and spreadsheets are available on the computers. Various age appropriate resources for the independent part of lessons are available and are used throughout the school such as the internet and Beebots etc.

Early Years Foundation Stage

In the Foundation Stage, children are offered a wide range of mathematical experiences – sorting, ordering, matching, counting, estimating, measuring, volume, shape, pattern direction. They are introduced to a variety of mathematical language through practical activities, e.g. baking, which is used as a mathematical experience as well as a scientific one. Children are introduced to mathematical symbol for number. Through role-play we introduce mathematical experiences from real life, e.g. money. This is further extended through indoor and outdoor play.

In foundation stage 2 the Early Learning Goals are used to plan for a daily Mathematics lesson, including some whole class teaching. Group/independent work may follow immediately, or may be worked on during the day. This will be left to the discretion of the teacher in Foundation Stage 2.

Role of the Maths Subject Leader

- To lead in the development of maths throughout the school.
- To monitor the planning, teaching and learning of mathematics throughout the school.
- To help raise standards in maths.
- To provide teachers with support in the teaching of mathematics.
- To provide staff with CPD opportunities in relation to maths within the confines of the budget and the School Improvement Plan .
- To keep up to date with new developments in the area of mathematics