Ellington Primary School

Maths Policy Statement

Introduction

This policy sets out our approach to teaching, reflecting the school's aims and objectives in relation to the teaching and learning of Mathematics. It sets a framework within which teaching and non-teaching staff can operate. The policy should be read in conjunction with the Early Years Foundation Stage framework and the 2014 National Curriculum. These set out the rationale for teaching each area of the Mathematics Curriculum and specify the skills that will be developed for the majority of pupils in each year group. Please refer to the EYFS Policy for a more detailed overview of how mathematics is approached in the Early Years setting at Ellington Primary School.

"Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject." (The New national curriculum in England framework document, July 2014).

Aims of Maths at Ellington Primary School

The National Curriculum states that pupils need to be fluent in the fundamentals of mathematics; reason mathematically and solve problems applying their mathematics.

At Ellington Primary School we hope to:

- Develop a positive attitude to Maths by presenting it as an enjoyable, interesting and attractive subject.
- Develop pupils' confidence in their own ability to understand and tackle mathematical questions.
- Develop their ability to think clearly and logically with independence of thought and flexibility of mind.
- Develop an understanding of mathematics through a process of enquiry and experiment.
- Make pupils aware of the uses of Maths in everyday learning and in the world beyond the classroom including the maths needed for life skills and where this might be applied.
- Encourage persistence through sustained work in mathematics that requires perseverance over a period of time.
- Encourage children to express their mathematical ideas fluently and use its language in written form and orally.

Objectives

To provide a wide range of experiences and tasks appropriate to the needs of the pupils, so allowing them to develop:

- Mathematical Concepts
- Knowledge and understanding
- Recall of basic facts
- Relevant skills
- Understanding of the world around them
- Pattern and relationships
- A feel for number, calculation & logic

Special Educational Needs and Higher Attainers

- Teaching needs to meet the needs of all pupils
- Pupils with special educational needs need to have differentiated activities which allow them to access the curriculum fully and make progress
- The planning should clearly indicate the objectives these pupils are working on
- Planning should be sufficiently differentiated to cover their needs
- Practical resources will be available to all pupils
- Specific skills for Maths will be supported using provision management and specific interventions will be planned to meet all pupils' needs. This should be planned and overseen by the class teacher but could be delivered by TAs. Teachers could use White Rose, Numicon, First Class at Number or Abacus in conjunction with their knowledge of pupils' needs to plan interventions. Where gaps are evident in the pupils' learning, these pupils should be given immediate intervention to overcome this barrier.
- Challenges (such as the Primary Maths Challenge or Times Table Rockstars contests) could be used to stretch and enthuse higher attainers in Maths.
- NRICH and White Rose greater depth resources, together with Times Tables Rock Stars and Ninja Maths will be offered to all children.

Early Years Foundation Stage

Foundation Stage pupils are encouraged to develop their problem solving, reasoning and understanding of mathematics in a broad range of contexts in which they can explore, learn, enjoy, practise, discuss and extend their skills. Pupils are encouraged to develop their mathematical potential in both indoor and outdoor environments; with a combination of teacher and pupil led activities. They are provided with a wide range of activities that promote regular active participation, exploration of real life problems, development of imaginative play and early experience of mathematical language. All pupils are supported positively and encouraged to gain confidence and competence in their mathematical skills.

Planning

All staff follow the National Curriculum for medium term planning and short term planning using the White Rose Scheme and Abacus Scheme to support, inform next steps and identify any gaps in learning. The school uses White Rose and Abacus (which follows the National Curriculum) to plan. Across the school, the teacher directly plans the curriculum to specifically suit the needs of the cohort while taking into account age related expectations. Planning is a document which should be used to inform teaching and support learning and progress therefore teachers plan using whichever format is most useful for them. Planning should only include the information which teachers need to deliver their lessons effectively. On the planning staff could include:

- Activities that are differentiated taking into account the knowledge of the pupils' current attainment and matched to the pupils' needs
- Guided sessions (which could be a mini teaching session)
- The key questions that will be used
- Opportunities for assessment for learning
- A range of opportunities to use mental maths skills across the week (this may include a mental maths test where appropriate)
- A description of the main teaching and success criteria

Teaching and Organisation

Maths is approached through a process of investigation, problem solving and enquiry. A variety of teaching styles can and should be used:

- Modelling by the teacher
- Problem solving and investigation
- Practical work
- Consolidation and practice
- Mathematical discussion
- Mental and oral work
- Paired/group work
- Mixed ability groups
- Ability groups
- Independent work
- Whole class teaching
- Written work

Maths in taught to all pupils on a daily basis. Pupils are taught in mixed ability classes across the school. The learning objectives and success criteria for the main teaching activity is displayed and shared with the children. The vocabulary that the children will be using is shared with the class and explained.

Teaching Assistants

Time should be set aside prior to the lesson to discuss with the teaching assistant the learning objectives, the activities and their role in the pupils' learning. Teaching Assistants should be used to support the learning of pupils throughout the whole of the maths session During the oral/mental activities they can: support a group of pupils, support one pupil or observe and make notes on pupils during the session, or take a group of pupils out for a differentiated session. In the main teaching activity they should work with either a group or individual pupil or take a guided group for differentiated teaching. Teaching Assistants need time at the end of the session to discuss the work of the pupils they have supported with the teacher this could be written or verbal feedback.

Classrooms and Display

To reinforce and support the pupils' learning, all classrooms should have a Maths learning wall as well as a number line and number square (which could be on the IWB) appropriate for the age and ability of the pupils. High quality maths learning walls need to be evident in each classroom and pupils should be made explicitly aware of their usefulness. They could include key vocabulary and reminders for pupils to support them in their maths sessions.

Assessment

All pupils undertake formal assessment tasks throughout the year. These will happen at the end of each term and data is collated on the school's tracking system and SIMs. Summative assessment is carried out daily by the class teacher to inform planning and next steps. Pupils at the end of key stage one and two complete a SATs test. Pupils in EYFS are monitored throughout the year using the 'Early Years Foundation Curriculum' and Abacus scheme and against the ELG at the end of the year using the Profile.

Calculation Policy

Please refer to the Calculation Policy for further details.

Marking and Feedback

Good feedback should:

- Praise the child
- Celebrate success of children through rewards and celebration assemblies
- Explain what the child has done well and what they have achieved/learned
- Give clear targets and next steps
- Extend the learning that has already taken place
- Clarify any misconceptions
- Be a dialogue between the teacher and the child
- Provide an opportunity to assess a child's progress and inform assessment and planning

To provide the children with continuous and relevant feedback and targets, work is marked before the start of the next lesson. An incorrect answer is indicated by a dot; the children should then be encouraged to correct their work. Every piece of work needs to be marked. Children should be given time to respond to marking comments and next step questions posed.

Homework

Weekly maths homework will be given to all pupils.

Role of Subject Leader

The subject leader is responsible for improving the standards of teaching and learning in mathematics through:

- Monitoring and evaluating pupil progress
- Analysing data
- Ensuring breadth and balance of the curriculum is achieved
- Taking the lead in policy development
- Supporting colleagues in their continued professional development (CPD)
- Purchasing and organising resources
- Reporting to governors and senior leadership team
- Providing guidance, support and training for parents and carers
- Keeping up to date with recent curriculum developments