

Escomb Primary School

Mathematics Policy

Introduction

At Escomb Primary School Primary School we believe that mathematics is a tool for everyday life. It is a whole network of concepts and relationships which provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems

It is our aim to develop:

- a positive attitude towards mathematics and an awareness of the fascination of mathematics
- competence and confidence in mathematical knowledge, concepts and skills
- an ability to solve problems, to reason, to think logically and to work systematically and accurately.
- initiative and an ability to work both independently and in cooperation with others
- an ability to communicate mathematics
- an ability to use and apply mathematics across the curriculum and in real life situations
- an understanding of mathematics through a process of enquiry and experiment

Teaching and Learning

Through careful planning and preparation we aim to ensure that throughout the school children are given opportunities for:

- practical activities and mathematical games
- problem solving
- individual, group and whole class discussions and activities
- open and closed tasks
- a range of methods of calculating eg. mental, pencil and paper and using a calculator
- working with computers as a mathematical tool

Our staff have high expectations of all children, irrespective of ability, and encourage them to be successful and achieve their full potential.

Where Teaching Assistants are available, they are used to support individuals or groups, either within the class or withdrawing them for intervention strategies.

One core element in mathematics is the teaching of number, which includes substantial areas of place value, addition and subtraction, multiplication and division, fractions (including decimals from Year 4 and percentages from Year 5), and ratio & proportion and algebra (in Year 6)

Other areas of mathematics include measurement, geometry (properties of shape, and position and direction) and statistics.

Children are encouraged to apply their skills in real life experiences, both in and outside the context of the school. The outdoor environment is used to enhance their learning experiences. Throughout the whole curriculum opportunities exist to extend and promote mathematics. Teachers seek to make links between maths and other curriculum subjects.

We use a range of practical equipment and resources to support children's learning throughout EYFS, KS1 and Key Stage 2.

Teachers' Planning and Organisation

Our teaching of mathematics is based on the mathematics programme of study in the revised national curriculum (2014) and supported by Abacus Maths.

The approach to the teaching of mathematics within the school is based on:

- a mathematics lesson every day in Key Stage 1 and 2, with a clear focus on direct, instructional teaching and interactive oral work with both the whole class and smaller ability groups
- through both child-initiated and adult-led activities in the Early Years Foundation Stage

Key Stage 1 and 2 teachers plan lessons encompassing the aims and content National Curriculum 2014 and follow a common format.

Teachers of the Reception children plan teaching and learning opportunities based on children's age and stage of development, ensuring that they are working towards the Early Learning Goals in the Mathematics aspects of the Early Years Foundation Stage Framework (Sept 2012)

Differentiation

This should be incorporated into all mathematics lessons and can be done in various ways:

- Differentiated Activities which can be accessed by children of different abilities, supporting and challenging all.
- Common Tasks which are open ended activities/investigations where differentiation is by outcome.
- Resourcing which provides a variety of uses depending on abilities eg. counters, cubes, 100 squares, number lines, mirrors.

Escomb Primary School Primary School also has a 'Progression in Calculation Policy', which is used throughout the school to ensure the continuing, and gradual, development of number skills. We endeavour to help parents understand some of these different methods too, particularly for understanding and supporting homework.

Many aspects of mathematics are taught in a variety of different ways. Our aim is to encourage children to learn a range of methods to calculate both mentally and using compact written methods.

The national curriculum programme of study includes expectations for each year group from Year 1 through to Year 6 as average expectations for the majority of children in that year group.

Each child may have their own Target Card or there is a group target card displayed in the classroom, matching the level at which they are working; this helps them, and their parents, to understand the expectations for their work and also how best to move on in their learning by taking the next step.

This personalised aspect of learning continues with use of Abacus computerised Learning Games maths system. Each child, from Year 1, can log on to the system and consolidate learning that is linked specifically to their level of ability both at home and in school.

Mathletics is available with home access for Years 3-6. It has a competitive aspect to it where children can compete against class members, school members or the world. It is useful for building speed in mental recall of bonds and facts, essential to all mathematics. Activities are differentiated to match the needs of the child.

SEND and Gifted and Talented

Children with SEN are normally taught within the daily mathematics lesson (please see the section on differentiation). When additional support staff are available to support groups or individual children they may withdraw small groups to use mathematics intervention materials.

Within the daily mathematics lesson teachers not only provide activities to support children who find mathematics difficult, but also activities that provide appropriate challenges for children who are high achievers in mathematics.

Equal Opportunities

All children should have equal access to the curriculum, irrespective of particular circumstances such as race, background, gender and capability.

Pupils' Records of their Work

There are occasions when it is both quick and convenient to carry out written calculations. It is also important to record aspects of mathematical investigations. Children are taught a variety of methods for recording their work and they are encouraged and helped to use the most appropriate and convenient method of recording.

A range of work/ exercise books are provided for pupils to record their work, which are appropriate the age and key stage of the children.

Marking

The marking of mathematics work follows the whole school marking policy and consists of both verbal and written feedback.

Assessment and Record Keeping

Children are regularly assessed using Abacus assessment sheets(half term and end of term). The Year 2 pupils are given a teacher assessment level in the summer term. Children in school are also given maths targets each term based on reaching the End of Year expectations.

In the Foundation Stage, progress across the year is assessed against the Developmental Matters and Early Learning Goals of the Early Years Foundation Stage Curriculum. A final judgement is made in the Summer Term as part of the Foundation Stage Profile. Assessments are based on observations of child-led activities and through adult focussed activities.

Reporting to Parents

Each term progress and attitude sheets are given to parents at consultation evenings for discussion. Teachers use the information gathered from their observations and assessments to help them comment on individual children's progress.

Monitoring and Evaluation

The mathematics leader is responsible in monitoring and evaluating the quality and standards of mathematics throughout the school and enables the leader to support teachers with mathematics.

Resources

Resources which are not used or required regularly are stored centrally and accessed by teachers as needed. Other resources are stored within the classrooms and are easily accessible to all children, allowing them to become familiar with the relevant equipment.

Homework

It is our school policy to provide parents and carers with opportunities to work with their children at home on maths activities. These are valuable in promoting children's learning in mathematics. The content of homework activities are decided by individual class teachers.

Role of the Subject Leader

- To take the lead in policy development
- To support colleagues.
- To monitor progress in Mathematics - eg leading staff CPD, scrutiny of work, analysis of formal assessment data.
- To take responsibility for the choice, purchase and organisation of central resources for Mathematics, in consultation with colleagues.
- To liaise with other members of staff to form a coherent and progressive scheme of work which ensures both experience of, and capability in, Mathematics.
- To be familiar with current thinking concerning the teaching of Mathematics, and to disseminate information to colleagues.
- The subject leader will be responsible to the Headteacher and will liaise with the named link Governor.

This policy will be reviewed by the governors annually