Lewknor Church of England Primary School
Maths Policy 2020-2023

Introduction

'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.'

(National Curriculum 2014)

The aims of the 2014 National Curriculum are for our pupils to:

- Become fluent in the fundamentals of mathematics through varied and frequent practice with complexity increasing over time.
- Develop conceptual understanding and ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically; follow a line of enquiry, conjecture relationships and generalisations.
- Develop an argument, justification and proof by using mathematical language.
- Problem solve by applying knowledge to a variety of routine and non-routine problems. Breaking down problems into simpler steps and persevering in answering.

The National Curriculum sets out year-by-year Programmes of Study for Key Stages 1 and 2. This ensures continuity and progression in the teaching of mathematics.
The EYFS Statutory Framework 2017 sets standards for the learning, development and care of children from birth to five years old and supports an integrated approach to early learning. This is supported by the 'Development matters' non statutory guidance.
The EYFS Framework in relation to mathematics aims for our pupils to:

- develop and improve their skills in counting
- understand and use numbers
- calculate simple addition and subtraction problems
- describe shapes, spaces, and measures

The purpose of mathematics in our school is to develop:

- positive attitudes towards the subject and awareness of the relevance of mathematics in the real world
- competence and confidence in using and applying mathematical knowledge, concepts and skills
- an ability to solve problems, to reason, to think logically and to work systematically and accurately
- initiative and motivation to work both independently and in cooperation with others
- confident communication of maths where pupils ask and answer questions, openly share work and learn from mistakes
- an ability to use and apply mathematics across the curriculum and in real life
- an understanding of mathematics through a process of enquiry and investigation

We aim to provide a stimulating and exciting learning environment that takes account of different learning styles and uses appropriate resources to maximise teaching & learning.

Breadth of study

Careful planning and preparation ensures that throughout the school children engage in:

- practical activities and games using a variety of resources
- problem solving to challenge thinking
- individual, paired, group and whole class learning and discussions
- purposeful practise where time is given to apply their learning
- open and closed tasks
- a range of methods of calculating e.g. mental, pencil & paper and using a calculator
- working with computers as a mathematical tool

Through our creative approach to teaching and learning we also seek to explore and utilise further opportunities to use and apply mathematics across all subject areas.

Teachings planning Organisation

Long term planning

The National Curriculum for Mathematics 2014 (**Appendix 1**), Development Matters and the Early Learning Goals (Number, Shape Space & Measure) (**Appendix 2**), provide the long-term planning for mathematics taught in the 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 **(Appendix 3)**. 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 small steps 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. (**Appendix 4**), All classes have a daily mathematics lesson where possible. In Key Stage One lessons are 45-60 minutes and in Key Stage Two around 60 minutes.

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. Mathematics is taught through an integrated approach.

Special educational needs & disabilities (SEND)

Daily mathematics lessons are inclusive to pupils with special educational needs and disabilities. Maths focused intervention in school helps children with gaps in their learning and mathematical understanding. These are delivered by trained staff and overseen by the class teacher.

Within the daily mathematics lesson teachers have a responsibility to not only provide support children with SEND but also activities that provide sufficient challenge for children who are high achievers. It is the teachers' responsibility to ensure that all children are challenged at a level appropriate to their ability.

Equal Opportunities

We aim to provide for all children so that they achieve as highly as they can in Mathematics according to their individual abilities. All children have equal access to the Mathematics curriculum and to suitable learning opportunities regardless of gender, disability, ethnicity or home background. We aim to identify which pupils or groups of pupils are under-achieving and take steps to improve their attainment through an individually tailored programme of intervention. More able children are also identified, and additional provision is mapped. Activities and work are differentiated to enable all to take part. Children with SENDs are included in quality first teaching.

Lessons

In all lessons, learning objectives 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 involve elements of:

- Instruction – giving information and structuring it well.
- Demonstrating – showing, describing and modelling mathematics using appropriate resources and visual displays.
- Explaining and illustrating – giving accurate and well-paced explanations.
- Questioning and discussing.
- Consolidating.
- Reflecting and evaluating responses – identifying mistakes and using them as positive teaching points.
- Summarising – reviewing mathematics that has been taught enabling children to focus on next steps

Assessment

Short term

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 in line with the schemes of learning. These materials used alongside judgements made from class work support teachers in making and assessment of a child's progress.
Pupil Progress meetings are timetabled each term for all classes with the Headteacher. The progress of pupils is discussed and appropriate intervention considered and put in place where appropriate.

Long term

Y2 and Y6 complete the national tests (SATs) in May. Yrs.' 3, 4 and 5 complete optional SATs papers produced by Testbase 2015 which inform teacher summative judgements in the summer term.

Resources

All mathematical equipment and resources are stored centrally in the Lower Juniors room.

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 monitor and maintain high quality resources.
- To keep up to date with new developments in the area of mathematics