



Ormskirk West End

Primary School

From Tiny Acorns, Mighty Oaks Grow.

Community Primary ages 4-11

Maths Policy

Approved: Spring 2023 Next Review Date: Spring 2026

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 2014 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.

Teachers planning and organisation

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 in the school.

Medium term planning

Reception through to Year 6 use White Rose Maths schemes of learning for planning.

This scheme provides 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/flipchart planning. White Rose lesson powerpoints are used and adapted to meet the needs of the children in the class. Key vocabulary slides are added to lessons and challenges to match the lesson objective. 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 where possible. In key stage one lessons are 45-60 minutes and in key stage two at least 60 minutes. Lessons are taught by both the class teacher and the TA so that year groups can be taught separately.

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. Where

required, children's IEP's incorporate suitable objectives from the National Curriculum for Mathematics or development Matters and teachers keep these in mind when planning work. These targets may be worked upon within the lesson as well as on a 1:1 basis outside the mathematics lesson. Maths focused intervention in school helps children with gaps in their learning and mathematical understanding. These are delivered by trained support staff and overseen by the SENCO and/or the class teacher. IDL (an interactive program) is in place to support the embedding of concepts and addressing gaps.

Within the daily mathematics lesson teachers have a responsibility to not only provide differentiated activities to 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

Positive attitudes towards mathematics are encouraged, so that all children, regardless of race, gender, ability or special needs, including those for whom English is a second language, develop an enjoyment and confidence with mathematics. This policy is in line with the school's 'Racial Equality' policy.

The aim is to ensure that everyone makes progress and gains positively from lessons and to plan inclusive lessons. Lessons involving lots of visual, aural and kinaesthetic elements will benefit all children including those for whom English is an additional language (EAL).

Differentiated questions are used in lessons to help children and planned support from Teaching Assistants and other adults.

Lessons

In all lessons, learning objectives and key vocabulary 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

Pupils' Records of work

Children are taught a variety of methods for recording their work and are encouraged and helped to use the most appropriate and convenient. Children are encouraged to use mental strategies and their own jottings before resorting to more formal written methods. Children's own jottings to support their work is encouraged throughout all year groups. WE use the White Rose books, maths journals and other resources when necessary.

Marking/Feedback

Marking of children's work is essential to ensure they make further progress and any feedback given needs to be in the moment as much as possible. Feedback reflects the learning objective and success criteria in line with the school Feedback policy. Children are encouraged to self-assess their work and to make corrections or improvements. Some pieces of work are self-marked by children where appropriate, guided by the teacher.

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 White Rose in line with the schemes of learning. In Year 6, previous SATs papers are also used to assess gaps. These materials used alongside ongoing teacher assessment support class teachers in making a steps judgement for each child which in line with the assessment policy is entered into Insight Tracker. Pupil Progress meetings are timetabled each term for all classes. 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 which inform teacher summative judgements in the summer term.

Resources

Each class has a stock of core resources that are age appropriate. Additional mathematical equipment and resources are stored centrally in the maths area.

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

Laura-Jean Horton – Maths Subject Leader