God wants me to be the best me I can be

St Joseph's Roman Catholic Primary School

Mathematics Policy

Jesus is the Centre of our lives

Mission statement

Through His teaching we aim to value ourselves and each other as unique and precious individuals created by God;

We encourage and develop love and respect for each other and for our world;

We strive to promote and deepen our Catholic faith through prayer, work and play;

We aim to foster a loving, caring environment in which each child can freely learn and develop to their full potential.

Gospel Values underpinning our curriculum

Love, friendship, respect, truth, hope and forgiveness.

Curriculum Intent

Vision for the subject

St Joseph's Roman Catholic Primary School recognises that Mathematics teaches children how to make sense of the world around them through developing their ability to use number, calculate, reason and solve problems. It helps children to understand relationships and patterns in both number and space in their everyday lives. The Mathematics curriculum should be bold, provide breadth and balance and be relevant and differentiated to suit the needs of all children in the modern world. It should be flexible, motivating all pupils, thus encouraging success at all levels. The use of maths is an essential part of everyday life and we believe that all children can achieve and become confident mathematicians. For our children at St Joseph's, it is our intention that when our children start school, the first steps in their learning journey is to recognise numbers and develop their understanding of counting in the environment around them. Once secure in this understanding, the next steps are for the children to apply their understanding to written calculations in KS1 using the four number operations (+ x - ÷). This is where the basic skills needed to calculate confidently are embedded before the children move up to KS2.

Once the children move up to Lower Key Stage 2, the children are taught more formal written methods for calculations and develop their resilience to problem solve through trial and error and begin to thrive in their mathematical reasoning and understanding.

In Upper Key Stage Two, our aim is for the children to have a secure awareness of the importance of mathematics in their daily lives. This is particularly the case when our children are becoming 'secondary ready'. We want our children to have the necessary life skills for them to be able to cook for themselves following a recipe. For our children to have the skills to do this, they need to have a secure understanding of fractions and measures. Our children need to understand how to confidently use money to buy food if they are cooking for themselves or paying a bus fare for themselves to get to and from school each day. We recognise that our children need a secure understanding of how to tell the time and can use this knowledge to organise themselves and plan a daily routine. E.g. many of our year 6 children use public transport to get to and from secondary school which means that they will need the ability to tell the time and use a bus timetable to plan a journey to and from school.

Aims of the curriculum

The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language

- can **solve problems** by applying their mathematics to a variety of routine and non- routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Roles and responsibilities
Subject leader

The role of the maths subject leader is to:

- Take the lead on policy development and planning

- Support colleagues in their planning and implementation of the National Curriculum and in assessment / record keeping activities

- Take the lead on maths action planning in line with school

improvement/development

- Take responsibility for monitoring and evaluation in maths, including

planning/book scrutinies, discussions with pupils, learning walks and observations, analysing data/standards and moderation.

- Take responsibility for the purchase and organisation of maths resources and analyse the value for money of these resources

- Keep up to date with developments in maths education and disseminate information to colleagues as appropriate

- Analyse the impact of interventions on pupil progress.

School staff

- To promote a confident, positive attitude towards the learning and use of Mathematics making it an enjoyable experience;
- To promote confidence and competence with numbers and the number system;
- Encourage pupils by believing that every child, with hard work, can be good at Mathematics through promoting a **Growth Mindset.**
- To promote the ability to solve problems through connecting ideas, decision-making and applying their mathematical skills in a range of contexts, including other subjects such as Science;
- To promote mathematical reasoning by following a line of enquiry, developing an argument and making justifications using mathematical language;
- To promote a practical understanding of the ways in which information is gathered, presented and used;
- To promote the exploration of features of shape and space and develop measuring skills in a range of contexts;
- To understand the importance of Mathematics in everyday use, especially in relation to essential life skills, such as telling the time and understanding money.

Children

- To develop an enjoyment of learning through practical activity, investigation, exploration; mental exertion and discussion;
- To develop confidence and competence with numbers and the number system;
- To develop the ability to solve problems through connecting ideas, decision-making and applying their mathematical skills in a range of contexts, including other subjects such as Science and Geography;
- To develop the ability to reason mathematically by following a line of enquiry, developing an argument and making justifications using mathematical language;
- To develop a practical understanding of the ways in which information is

gathered and presented;

- To explore features of shape and space, and develop measuring skills in a range of contexts;
- To understand the importance of Mathematics in everyday life, especially in relation to essential life skills such as telling the time and handling money.
- To foster positive attitudes towards Mathematics by developing pupils' confidence, independence, persistence and co- operation skills and understand Growth Mindset in a Mathematical context.

Curriculum Organisation

EYFS use the **Lancashire Red Rose Mastery Maths for nursery** in nursery and the **Lancashire Red Rose Reception Maths** scheme to plan teaching and learning opportunities.

Year 1, Year 2, Year 3, Year 4, Year 5 and Year 6 base their planning on the **Lancashire Maths Red Rose Mastery One, Mastery Two, Mastery Three, Mastery Four, Mastery Five and Mastery Six schemes of work.** This resource based on the national curriculum offers the following aspects:

- Mastery approach to teaching and learning
- Starter ideas
- Initial problems
- Guided Learning
- Independent Learning
- Deeper Learning
- Assessment

A set of key skills for each year group is used to ensure all children have the necessary skills to access Maths lessons. Achievement of these objectives is recorded on KLIPS and O Track an online tracking tool. Where there are gaps, these are taught in small-group guided sessions by either the class teacher or teaching assistants and as much as possible in same day intervention sessions.

Inclusion

At St. Joseph's, we incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multicultural aspects of mathematics wherever possible.

All teachers aim to give every pupil the opportunity to experience success in learning and to achieve as high a standard as possible. When planning, teachers set high expectations and provide opportunities for all pupils to achieve, including boys and girls, pupils with special educational needs, pupils

with disabilities, pupils from all social and cultural backgrounds, pupils in receipt of the Pupil Premium Grant, and pupils of from different ethnic backgrounds. All teachers aim to challenge the more able to deepen their conceptual understanding, whilst at the same time ensuring that SEND and lower ability children are able to keep pace with their peers through effective differentiated teaching and intervention and by deploying a range of effective teaching strategies to cater for different learning styles.

SEND

Within the daily maths lesson, teachers should not only provide activities to support children who find maths difficult, but also activities that provide appropriate challenges for more able children. Wherever possible, children with SEND are taught within the classroom during the daily whole class maths lesson.

Where applicable, children's IPMs incorporate suitable objectives; teachers/teaching assistants keep these objectives in mind when planning, delivering and assessing work. First Class @ Number, First Class @ Number 2 and First Class @ Arithmetic interventions are used in school for children who need further support. Children also access IDL Numeracy by Strand.

The Maths for Life program is also used to support the teaching of the daily maths lesson for those children who need a further adapted maths curriculum.

Curriculum Implementation

To achieve our aims in this subject at our school:

Development of curriculum

We have been trained to deliver all of the Red Rose Mastery Maths scheme from years nursery- 6.
We have completed the NCETM Mastery Embedding phase and are also taking part in the Mastery Sustaining Work Groups (TRG's) which have helped to shape our curriculum development towards a mastery approach to teaching and learning mathematics.

Planning

The planning of the curriculum is organised into three phases:

- Long term planning
- Medium term planning
- Short term planning

Sequencing of learning

Please see relevant mastery overviews and Lancashire Maths progression documents.

Home school links/ parental involvement

It is our school policy to provide parents and carers with opportunities to work with their child at home. Maths homework is sent home on a regular basis and takes the form of number games, learning of number facts, tasks and problem solving with formal exercises for older children.

Homework tasks may also be set online with work set by the class teacher at an appropriate level and monitored. Where this is the case, extra-curricular sessions should be provided for those children who are unable to access the internet at home.

Parents are always welcomed into school at a mutually convenient time to discuss their child's learning in Maths.

Parents are given the opportunity to look at Maths books and discuss their child's progress during Parents' Evenings in the Autumn and Spring Term. Reports and optional comments sheets are sent out to parents during the Summer Term.

Development of subject specific vocabulary

The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum: cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

Professional Development of staff and Use of Resources

It is the responsibility of the class teacher to ensure each Maths lesson is appropriately resourced; any requests for further resources should be made to the Maths subject leader.

All classrooms should have a Maths working wall; teachers should aim to organise an area within the classroom dedicated to mathematics. This area should be easily accessible to all children and allow them to consolidate and further their mathematical thinking. "Challenge areas", where children can choose to solve problems independently, are also encouraged in each class, along with mathematical-themed role play wherever possible.

All children are encouraged to use practical equipment to develop deep conceptual understanding at every possible opportunity. Learning is also supported through visual resources.

Pupils' Record of learning

Children are encouraged to work neatly when recording in books. The date (in number format) should be written clearly at the start of each lesson, all numerals should be correctly formed and, where appropriate, one square should be used for each digit/numeral.

Books will demonstrate a variety of types of recording including drawings, graphs, jottings, problem solving, ICT and mental and written calculation strategies. It is important to record aspects of investigations, practical based activities and problem solving.

In R and Y1, we use plain then large squares, progressing to 10mm squares by the end of KS1. At the start of KS2, we use 10mm squares, progressing to 7mm squares by the end of Y6.

In Year 1, Year 2, Year 3, Year 4 and Year 5 the vast majority of the children's learning is recorded in the printed Red Rose maths books and additional books are used for the deeper learning activities, arithmetic and intervention.

Monitoring of the implementation

Monitoring and evaluation is seen as key in improving standards in mathematics teaching and learning. As such, it is given a high priority at all times. Termly book and planning scrutinies, learning walks, pupil conferencing and lesson observations by the Maths subject leader enable standards to be monitored and evaluated. Opportunities for teachers to review policy, practice and materials are given on a regular basis during staff meetings.

Curriculum Impact

Use of feedback to improve learning outcomes

Please refer to the school's Marking and Feedback Policy.

Assessment: Summative and formative (including standards and moderation/ work scrutiny

In Maths, we use the Lancashire Key Learning Indicators of Progress (KLIPs) for assessment purposes. Formative assessment takes place every day as a normal part of maths lessons and interventions. Summative assessments are carried out through use of end of key stage statutory assessment, and, in years 1-6, end of term maths assessments (the Lancashire assessments). O-track is used to record attainment and progress in Maths and to identify any children for whom intervention is necessary. Pupil progress meetings are held

to monitor progress of individuals and decide on effective provision for those not making appropriate progress.

Moderation meetings are held at least termly to ensure an agreed interpretation of year group expectations and their exemplification.

EYFS progress is judged regularly against Development Matters, recorded in learning journeys, and is an on-going, organic process.

Observation
Observation is seen as a key part of our monitoring of mathematics and can take the form of learning walks, drop ins, peer to peer observation and team teaching.

Monitoring and evaluation
(in regards to the policy)
This policy will be reviewed every two years by the subject leader.
Any changes made to this policy will be communicated to all members of staff.
All members of staff directly involved with the teaching of Mathematics are required to familiarise themselves with this policy.

This policy was written in November 2019 by V Sanderson.
Reviewed September 2025.
The next scheduled review date will be September 2027.

Other relevant policies

Wherever possible, the maths curriculum will provide opportunities to establish links with other curriculum areas.

English- Mathematical terminology is used where appropriate.

Science- Pupils' data collection and analysis skills are further developed through the conduction of physical experiments, using units of measurement, calculating averages and interpreting results. Pupils record their findings using charts, tables and graphs.

Geography- Data analysis, pattern seeking and problem – solving skills are developed through the teaching of geography.

History- Pupils' understanding of time and measurements of time are developed through discussions of historical events.

ICT- Pupils use a range of maths resources on Purple Mash to help with areas of maths such as learning number facts. ICT will be used to record findings, using text, data and tables.

Reviewed by Mrs Sanderson-Maths Lead September 2025
To be reviewed: September 2027