



St Joseph's Catholic Primary School

Mathematics Policy

Contents:

Statement of intent

1. Legal framework

2. Roles and responsibilities

3. Early Years Provision

4. The National Curriculum

5. Cross-curricular links

6. Planning

7. Assessment and reporting

8. Monitoring and review

Curriculum Intent

At St Joseph's, a mastery approach to mathematics has been adopted and implemented to meet the individual needs of all children. Using the National Curriculum as its core, we use the Power Maths Scheme of Work to ensure that our mathematics curriculum is an adventure for all children to be immersed in, get creative with, make mistakes and conquer. We teach a whole-class mastery programme that is designed to spark curiosity and excitement and build confidence in mathematics. Continuing to promote the growth mind-set approach adopted throughout our whole school (as mentioned in our Teaching and Learning Policy) and the importance of thinking 'I can't do it...yet!', we aim to teach mathematics in a way that helps equip children with deeper conceptual understanding whilst meeting the specific needs of each child.

We feel it absolutely essential that our children experience mathematics in a variety of situations and use concrete, pictorial and abstract models to develop their mathematics understanding. We want all children to:

- have high expectations for themselves and others
- engage with the wider world
- be effective and confident communicators
- reason and critique in real life situations
- be independent thinkers and learners
- have positive attitudes towards their learning
- be respectful of different methods and ways of working

Curriculum Implementation

Leaders and Subject Leaders drive the development of our mathematics curriculum. Professional Development to increase teacher subject knowledge and expertise is fundamental to our approach.

Our mathematics teaching is structured around a whole-class interactive teaching model that focuses on all children achieving. All mathematics lessons are built around a child-centred design that models and embeds a growth mind-set approach. Our mathematics teaching model is structured to help to teach concepts for longer, ensuring teaching and learning goes deeper.

For each year group, the curriculum strands have been broken down into core concepts. These are taught in blocks of lessons so that sufficient time is given to developing a deep and sustainable understanding of core mathematics concepts. Each concept has also been broken down into small, manageable steps (lessons). Each lesson and concept builds on prior knowledge to help children to build a robust and deep understanding of the concept before moving on. Lessons include regular checks of progress with same day interventions taking place where needed. The progress of all children, including those with SEND and those in receipt of pupil premium funding, is closely monitored and the curriculum is designed to ensure that any identified gaps are closed. The regular checks of progress and child-friendly assessments throughout Power Maths are used to embed knowledge, inform teaching and produce next steps for children.

To encourage reading, communication and vocabulary, we use planned paired and shared talk with prompts and modelling of appropriate vocabulary, as Power Maths ensures that vocabulary is built into each lesson and taught explicitly. We use feedback to encourage justification of opinions and answers that include high-level vocabulary.

To promote development of knowledge and skills, we use a range of strengthening, deepening and challenge activities that involve fluency, reasoning and problem-solving style questions. These activities provide challenge in all areas for all groups of children, encouraging them to have high expectations of themselves.

To ensure all children are catered for and all needs are being met, we use quality first teaching, self and peer assessment, immediate, verbal feedback, interventions and moderation. This helps us to plan and intervene where needed and to give immediate support.

Curriculum Impact

The impact for all St Joseph's pupils, including disadvantaged pupils and pupils with SEND, is that they:

- can confidently recall key knowledge from current and previous areas of learning
- are fluent in calculations
- can confidently apply knowledge to their learning across the mathematics curriculum
- can recall timetables facts fluently and apply this to real life situations
- are confident in using and applying high-level vocabulary, when reasoning and explaining
- are articulate and confident to talk about a wide range of mathematics concepts
- meet or exceed age-related and national expectations
- are well prepared for the next stage of education

Signed by

Head teacher

Date:

Chair of Governors

Date:

1. Legal framework

1.1. This Policy will have regard to the following statutory and non-statutory guidance:

- DfE (2013) 'National curriculum in England: Mathematics programmes of study'
- DfE (2017) 'Statutory framework for the early years foundation stage'

2. Roles and responsibilities

2.1. The subject leaders are responsible for:

- Preparing policy documents, curriculum plans and schemes of work for the subject.
- Reviewing changes to the national curriculum and advising on their implementation.
- Monitoring the learning and teaching of maths, providing support for staff where necessary.
- Ensuring the continuity and progression from year group to year group.
- Encouraging staff to provide effective learning opportunities for pupils.
- Helping to develop colleagues' expertise in the subject.
- Organising the deployment of resources and carrying out an annual audit of all maths-related resources.
- Liaising with teachers across all phases.
- Communicating developments in the subject to all teaching staff.
- Leading staff meetings and providing staff members with the appropriate training.
- Organising, providing and monitoring CPD opportunities in the subject.
- Ensuring common standards are met for recording and assessing pupil performance.
- Advising on the contribution of maths to other curriculum areas, including cross-curricular and extra-curricular activities.
- Collating assessment data and setting new priorities for the development of maths in subsequent years.

2.2. The classroom teacher is responsible for:

- Acting in accordance with this policy.
- Ensuring progression of pupils' mathematical skills, with due regard to the national curriculum.
- Planning lessons effectively, ensuring a range of teaching methods are used to cover the content of the national curriculum.

- Liaising with the subject leaders about key topics, resources and support for individual pupils.
- Monitoring the progress of pupils in their class and reporting this on an annual basis to parents in the form of a written report and at learning conferences throughout the year.
- Reporting any concerns regarding the teaching of maths to the subject leaders or a member of the senior leadership team (SLT).
- Undertaking any training that is necessary in order to effectively teach the subject.

2.3. The special educational needs coordinator (SENCO) is responsible for:

- Liaising with the subject leader in order to implement and develop maths throughout the school.
- Organising and providing training for staff regarding the maths curriculum for pupils with special educational needs and disabilities (SEND).
- Advising staff how best to support pupils' needs.
- Advising staff on the inclusion of mathematical objectives in pupils' individual education plans.
- Advising staff on the use of teaching assistants in order to meet pupils' needs.

3. Early Years Provision

3.1. Activities and experiences for pupils will be based on the seven areas of learning and development, as outlined in the DfE's 'Statutory framework for the early years foundation stage'.

3.2. Provision for early years pupils focuses on the three prime areas and four specific areas:

- Literacy
- Maths
- Understanding the world
- Expressive arts and design

3.3. Activities will provide pupils with the opportunity to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems, and describing shapes, spaces and measurements. Activities will combine short ten-minute bursts of maths teaching each day with plenty of practice through both guided activities and independent play.

3.4. The outdoor area will provide opportunities for pupils to develop their understanding of mathematics and develop their problem solving skills.

4. The National Curriculum

4.1 The National Curriculum is followed and provides a full breakdown of the statutory content to be taught within each unit.

4.2. The subject matter covered reflects the requirements of the National Curriculum.

4.3. Special focus will be paid to developing and extending children's vocabulary through the curriculum taught at St Joseph's.

4.4. The school curriculum will be delivered by teachers in a range of teaching and learning situations with respect to the needs of individual pupils.

4.5 Please see St Joseph's Mathematics Progression documents for further details also.

5. Cross-curricular links

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

5.2. English

- Mathematical terminology is used, where appropriate.
- Maths-based texts can sometimes be used in English lessons and in guided reading sessions.

5.3. 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 finding using charts, tables and graphs.

5.4. Humanities

- Data analysis, pattern seeking and problem-solving skills are developed through the teaching of geography.
- Pupils' understanding of time and measurements of time are developed through discussions of historical events.

5.5. Computing

- Pupils are given some opportunities to gaining confidence using electronic devices throughout their school experience
- Computing will be used to enhance pupils' maths skills through the use of online resources and the creation of spreadsheets.
- Computing will be used to record findings, using text, data and tables.

6. Planning

6.1. All relevant staff members are briefed on the school's planning procedures as part of staff training.

6.2. Teachers will use the key learning content in the DfE's statutory guidance 'National curriculum in England'

6.3. Lesson plans will demonstrate a balance of interactive elements used in teaching, ensuring that all pupils engage with their learning.

6.4. Long-term planning will be used to outline the units to be taught within each year group.

6.5. Medium-term planning will be used to outline the key knowledge, key vocabulary and subject specific skills that will be taught in each unit of work and identify learning objectives.

6.6. Medium-term plans will be given to teachers to ensure there is progression between years.

6.7. Short-term planning will be used by teachers to reflect the objective of the lesson and the success criteria.

6.8. Short-term planning is the responsibility of the teacher. This is achieved by building on the medium-term planning, taking into account pupils' needs and identifying the method in which content could be taught.

6.9. All lessons will have clear learning objectives, which are shared and reviewed with pupils.

7. Assessment and reporting

7.1. Pupils will be assessed and their progression recorded.

7.2. Throughout the year, teachers will plan on-going assessment opportunities in order to gauge whether pupils have achieved the key learning objectives.

7.3. Assessment will be undertaken in various forms, including the following:

- Talking to pupils and asking questions

- Discussing pupils' work with them
- Marking work against the learning objectives
- Observing practical tasks and activities
- Pupils' self-evaluation of their work

7.4. Formative assessment, which is carried out informally throughout the year, enables teachers to identify pupils' understanding of subjects and informs their immediate lesson planning.

7.5. Teachers will make summative assessments at the end of each term, which will be recorded on O-Track, in order to demonstrate where learners are at a given point in time, and enable to the analysis of data.

7.6. Parents will be provided with a written report about their child's progress during the Summer term every year.

7.7. Verbal reports will be provided at parent-teacher interviews during the Autumn and Spring terms.

7.8. Pupils with special educational needs and disabilities will be monitored by the SENCO.

8. Monitoring and review

8.1. This policy will be reviewed on an annual basis by the SLT.

8.2. The Mathematics Subject Lead will monitor teaching and learning in their subject ensuring that the content of the national curriculum is covered across all phases of pupils' education.

8.3. Any changes made to this policy will be communicated to all teaching staff.

8.4. Teachers will assess and send data to The Mathematics Subject Lead and SLT.

8.5. The Mathematics Subject Lead will analyse areas to celebrate and develop.

8.6. The Mathematics Subject Leader will feedback to staff and SLT, and use to inform training.

8.7. The Mathematics Subject Leader and SLT will monitor over next term.

8.8. The Mathematics Subject Leader and SLT will use learning walks, moderations, pupil interviews, data analysis, and teacher/lead meetings to inform monitoring.