



Mathematics Policy 2017

School Vision

'With Christ at our centre, we love, listen and learn'

A high-quality mathematics education 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)

Mathematics teaches us how to make sense of the world around us through developing our ability to calculate, communicate, reason and solve problems. It enables children to explore, understand, and appreciate relationships and patterns, both in number and shape, in their everyday lives.

This policy outlines the teaching, learning and management of mathematics at Our Lady and St. Joseph Catholic Primary School and is based on the new National Curriculum, implemented September 2014. The implementation of this policy is the responsibility of all teaching staff.

Aims

The aim of this maths policy is to ensure complete coverage of the 2014 Primary National Curriculum for Mathematics.

At Our Lady and St. Joseph Catholic Primary School we aim, at our core, to follow seven key principles:

1. To inspire enjoyment of **maths**.
2. To assist in developing children's **conceptual understanding of maths**.
3. To help **raise levels** of attainment for every child.
4. To provide a **rigorous and cohesive scope and sequence** of the primary maths curriculum.
5. To promote the most **effective pedagogical methods** in the teaching of mathematics.
6. To offer manageable strategies for **effective diagnostic, formative and summative assessment**, to inform planning and teaching.
7. To strengthen the **home/school link**.

We will judge the success of our mathematical teaching by:-

- The motivation and interest displayed by our pupils
- KS1 and KS2 SAT results
- Success in meeting targets
- Data analysis (Pupil Asset)
- Book and planning scrutiny

- Observations of the teaching and learning in mathematics

Teaching and Learning

All pupils are entitled to a broad mathematics curriculum in which their learning needs are identified and met. Pupils should experience a range of practical and written activities on number, measurement, geometry and statistics.

Classrooms should be rich in discussion between pupils and between teacher and pupils. Some facts will need to be memorised, others will need to be practised but underpinning all of this will be the development of mathematical reasoning and understanding through exploration, problem solving and investigation.

Our medium and long term planning map out the mathematics curriculum for each year group. We then develop weekly and daily plans which give specific detail of learning objectives and appropriate differentiated activities.

Mathematics is taught for 1 hour per day in KS1 and KS2.

In the Early Years Foundation Stage (EYFS), mathematics teaching is spread throughout the day aiming for the same structure as KS1 by the end of Reception.

The pupils in each year group in KS1 and KS2 are taught in mixed ability classes and are provided with differentiated activities to ensure tasks are set according to their individual levels.

Setting may occur when it is felt there is a great disparity between pupil ability in the class and working with children of similar stages of learning would benefit the children. Although we don't prescribe any set lesson format as this can at times limit creativity, we recommend that in general each lesson has the following structure:

- A short mental/oral starter
- The main teaching
- Opportunities to apply new learning through differentiated activities.
- Plenary

Pupils in the Early Years Foundation Stage use a variety of media but most of the work is practical. In order to record written calculations and workings out, all pupils in KS1 and KS2 use a pencil for mathematical calculations and squared exercise books.

Pupils are taught suitable setting out of work. On starting new work, a margin is drawn 2 squares in from the left hand side of the page and the learning objective and date (in figures e.g. 20.01.2015) are underlined at the start of the lesson.

Cross Curricular Links

Mathematics is an integral part of our daily lives and therefore manifests itself in many areas of the curriculum. Links with ICT are continually developed through use of laptops, iPads and appropriate software.

Assessment, Recording and Reporting

To develop learning, pupils will be continuously assessed using a variety of strategies - observation, questioning, marking in accordance with our effective school marking and feedback policy. In the EYFS, pupils will be assessed and the Foundation Stage profile completed throughout the year.

In KS1 and KS2 children are tested using a range of set tasks designated as appropriate to test individual pupils, groups or a whole class on an individual or range of attainments.

Information will be recorded onto the schools tracking system and then used to inform future planning, and to identify children for intervention and support.

The Class Teacher, Assessment Co-ordinator, Mathematics Co-ordinator, SENDCo, EMAS Co-ordinator and Head Teacher keep records of assessments.

Each pupil will have targets set and checked regularly. These will link to the learning objectives for that year group.

Statutory Assessment Tasks (SATs) will be administered in accordance with statutory requirements at the end of KS1 and KS2.

Parent's consultations are held during the Autumn and Spring terms where the teacher discusses children's targets and progress in mathematics.

In accordance with statutory requirements, an Annual Report is sent to parents towards the end of the Summer Term. This report covers progress and achievements in mathematics; setting targets for future improvement and includes the scores achieved in the SATs if appropriate. For additional information, refer to the school Assessment Policy.

Resources

Pupils should engage in activities from a variety of sources – practical apparatus, worksheets, textbooks and the environment. Through regular and frequent access to these resources as well as computers and iPads - they will experience the fascination of mathematical exploration and investigation. They should also have the power to solve real and challenging problems.

Each classroom has a variety of teaching aids to support mathematics and there is a large maths resources store for staff to borrow equipment from depending on the needs of a lesson.

All classes have access to a wide variety of equipment including, multilink, Numicon, Cuisenaire rods, number lines as well as measuring and weighing equipment.

Larger or expensive equipment can be borrowed from the Maths Co-ordinator.

All classes have access to the Collins Busy Ants Maths scheme materials and resources (physical and online.)

Pupils are encouraged to choose resources which are relevant to their work, take care of and return them.

HOMEWORK

We recognise the importance of making links between home and school and encourage parental involvement with the learning of mathematics through parents evening, workshops and assemblies.

Homework provides opportunities for children

- To practise and consolidate their skills and knowledge.
- To develop and extend their techniques and strategies.
- To share their mathematical work with their family.
- To prepare for their future learning.

Homework activities will be short and focused and may help to form the basis of assessment.

Frequency for maths homework:

KS1: as appropriate to link with class work

KS2: Year 3 and Year 4: once a week

Year 5 and Year 6: at least once a week

Refer to the school's Homework Policy for additional information.

THE ENVIRONMENT

The school aims to provide a mathematically stimulating environment:

- Through displays that promote mathematical thinking and discussion
- Through displays of pupils' work that celebrate achievement
- By providing a good range of resources for teacher and pupil use.

In every classroom, resources such as number lines, hundred square, place value charts and multiplication squares are displayed as appropriate and used as resources for whole class or individual work, for children to become confident in their use and understanding of the number system. The Maths area in each classroom, which is regularly changed, has a range of stimulating activities.

Intervention

Interventions are provided to boost children's progression in maths and are tightly planned, with success criteria set and assessments made frequently to ensure progress is being made. Interventions are carried out mostly by our Teaching Assistants however it is the responsibility of the teacher to decide how it is planned and delivered. Communication is paramount to ensure the intervention is being carried out correctly and effectively.

Data analysis taken from 'Pupil Progress' is used to identify children who require additional support in specific areas, examine existing interventions and start new interventions.

Management

The role of the Maths Co-ordinator:

- Ensure quality first teaching
- Ensure a core of material is available
- Ensure progress is made by all
- Review and monitor planning
- Monitor maths teaching and evaluate pupils work
- Arrange liaison with outside consultants
- Work alongside staff to support if required
- Attend relevant courses to be aware of new ideas and disseminate these to all staff
- Support the teaching of learning of maths
- To arrange appropriate inset for colleagues
- Be responsible for ordering all maths resources
- Carry out a curriculum review and relay findings to the Governors and staff
- Update the policy document and schemes of work as necessary
- Provide workshops for parents

Induction of staff

New members of staff will be introduced to the policy, planning requirements, specific targets and resources by the co-ordinator.

Liaison across Key Stages

Regular meetings will take place between phase leaders in the EYFS, KS1 and KS2 to ensure best practice.

Evaluation

The mathematics policy will be reflected in our practice. This will be monitored and evaluated by the Head Teacher, the Senior Leadership Team and the Maths Co-ordinator in the form of lesson observations, discussion and regular scrutiny of planning and of pupil's work.

Whole School Issues

This policy will be considered annually when updating our School Improvement Plan and Maths Action plan. Inset will be planned to support Whole School responses and where possible individual professional needs.

Review Date: September 2018