Our Lady and St Philomena's Catholic Primary School
Maths Policy

Approved by:	Governing Body	Date: September 2024
Last reviewed:	September 2024	
Next review due by:	September 2025	

RATIONAL
The aims for our Maths curriculum are to ensure that pupils understand that Maths uses its own language of numbers, symbols and formulas to explore the rules that we need to measure, solve problems, identify quantities, time and amounts, find patterns and structure in our world, and generally understand the workings of our world and predict how it might change in different times or conditions.

Curriculum Intent
Our Maths curriculum will ensure that our pupils know that studying maths helps us to make predictions, solve problems and can be fun! Pupils will work individually and collaboratively thus improving their communication skills and prepare them for the world of work. We inform our pupils to understand that Maths continually grows and changes and that as mathematicians they will expand on their knowledge, make new discoveries and could in the future develop their own theories to benefit our world.

Curriculum Implementation
The Maths curriculum is reviewed in the summer term of each academic year in readiness for the following year. Learning opportunities are fine-tuned and the Subject Lead works with the Senior Leadership Team of school to identify progress milestones across the various strands of the subject. Maths is delivered in line with the Power Maths (with White Rose Hub edition) scheme sequence, with teachers using their professional teacher judgement to step away from the scheme to further consolidate learning when/if needed. The Power Maths (with White Rose Hub edition) was chosen to contextualise Maths for our children in to everyday situations so that they could see Maths in action, helping to solve everyday issues. Teachers ensure progression and repetition of key skills to embed key learning and subject knowledge. The Maths curriculum is aimed at:

- Developing the analytical, research and problem solving skills of our pupils.
- Developing their scientific, mechanical, coding, abstract problem solving, logic, planning and budgeting skills through Maths.
- Developing their debating skills – our Maths curriculum reflects the importance of spoken language to develop mathematical vocabulary and the pupils' ability to present mathematical justification, argument and proof.
- Encouraging pupils to follow lines of enquiry and be critical thinkers to be able to reason mathematically.

Curriculum Impact

Formative assessment is carried out on a daily basis in every lesson. Teachers use this assessment to inform their planning and future delivery of lessons. Teachers "walk the class" and "live mark" in every Maths lesson to provide verbal feedback to pupils and address misconceptions at the earliest opportunity. At the end of each lesson teachers make a judgement as to which pupils need to move on, consolidate or revisit a given skill, rather than marking work after the lesson. Future planning of lessons is guided by these formative assessment judgements.

At the end of each unit of work (topic), a summative assessment is carried out by staff to assess pupil understanding and identify areas which require further consolidation and/or revisiting. This is used to inform future teaching. Termly summative assessment is carried out by staff to measure the progress of students within a year group and across year groups and to identify those pupils who made need extra support. The termly summative assessments are shared with the Assessment Lead and the rest of the SLT of the school. The information provided is used to direct Pupil Progress meetings.

We help our pupils to realise that employers value Mathematics graduates: research highlights that companies value communication, collaboration, critical thinking, independence and adaptability. Maths lends itself to all of the above. Through Maths, we encourage our pupils to become a critical thinker, great communicator and an active, lifelong learner.

People with maths degrees often build careers in:

- accounting;
- medicine;
- engineering;
- forensic pathology;
- finance;
- business;
- consultancy;
- teaching;
- IT;
- games development;
- research;
- programming;
- the civil service;
- design;
- construction;
- astrophysics;
- actuary;
- business and technology analyst;
- software engineering;

- information engineering.

OUR MATHS CURRICULUM

Our Maths programme of study set out in the National Curriculum for Key Stages 1 and 2. In the Foundation Stage, teachers follow the Statutory Framework for the Early Years Foundation Stage. We follow the 'Power Maths (with White Rose Hub edition)' scheme. This is tailored to meet the individual needs of each cohort and to fulfil our ambition for the children by the time they leave us. We introduced a whole school mastery approach to the teaching of maths in September 2020, as a result of many months of research with neighbouring schools.

Alongside the scheme of work, teachers use their professional teacher judgement to recognise if and when children/classes may require to step away from Power Maths to further consolidate their learning. For this, teachers use White Rose Hub scheme of learning, NCETM, NRICH and classroom secrets; to name a few.

The school's curriculum places an emphasis on rich, applied mathematical tasks which allow the children many opportunities to persevere with problem solving and allows the opportunities to reason about mathematics. While some maths needs to be taught discretely, there is an emphasis on giving the maths a context so there is purpose for learning. Using the school environment and the wider world, the curriculum ensures children explore, make connections, seek patterns, recognise relationships and are creative with mathematics. A good understanding of place value and key number facts is extremely important. Therefore we encourage use of a wide range of practical equipment to support this conceptual development including Numicon, Base Ten, Counting Sticks, Cuisenaire Rods, number lines, one hundred squares, array boards, bar models and much more. We need a rolling programme of investment to replenish and target essential resources.

Throughout all stages, children play with numbers, measures, shapes and patterns to develop numerical awareness and explore the idea of 'proof.' We promote mathematical games that involve point scoring and personal bests (both electronic, and 'hands on') as we know that if managed properly, this is highly motivating.

PLANNING

Teachers follow the 'Power Maths (with White Rose Hub edition)' scheme of work plans, for deep coverage and depth of the school's curriculum, through both daily maths lessons and additional opportunities to develop mental maths skills. Alongside this, regular 'Fluent in Five' lessons take place, targeting basic skills whilst providing further opportunity to address misconceptions and revisit learning; helping our children to know more and remember more. Additionally, classes are also allocated time to focus specifically on the teaching of 'times tables'.

Plans for daily maths lesson include teaching, practising, applying, and reviewing and cater for all learning styles (visual, aural and kinaesthetic). Lessons follow a 'my turn, our turn, your turn' approach, allowing children daily opportunity to work both collaboratively and independently as well as witnessing teachers 'think allowed' and model best practice.

Children's targets are at the forefront of all planning and are clearly linked to and reviewed through regular assessment and analysis and pupil progress meetings.

See also our Maths Calculation Policies.

ASSESSMENT

All assessment is used to inform teaching and learning. We identify children's understanding and then swiftly focus interventions to overcome misconceptions. Formative assessment is carried out on a daily basis in every lesson. Teachers use this assessment to inform their planning and future delivery of lessons. Teachers "walk the class" and "live mark" in every Maths lesson to provide verbal feedback to pupils and address misconceptions at the earliest opportunity. At the end of each lesson teachers make a judgement as to which pupils need to move on, consolidate or revisit a given skill, rather than marking work after the lesson. Future planning of lessons is guided by these formative assessment judgements.

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See also our Marking policy and Assessment policy.

TEACHING AND LEARNING

All teaching must be at least good and in many cases outstanding. Underpinning all good or outstanding teaching in mathematics is the expertise and sound subject knowledge of the staff. Clear policies and regular professional development from a range of sources will develop the expertise of staff to help:

- in delivering the school's curriculum thoroughly and consistently
- in enhancing staff subject knowledge
- in weaving mathematical ideas into a coherent whole
- in choosing practical resources, visual images and information and communication technology that promote inclusive teaching and a deeper understanding for all
- in using good Assessment for Learning techniques to listen flexibly to children and to check and probe their understanding throughout.

SEND/ INCLUSION

The following principles inform and guide our policy and practise:

- meeting the diverse and complex needs of each and every individual is embedded in everything that we do as a whole staff
- it is the responsibility of the school to enable the child to access and make progress through the curriculum equal opportunities is not the same as equal provision

Above all we celebrate and affirm the diversity in our school, our community, our society, and our world and commit ourselves to enabling all our pupils to participate constructively as they grow.

For every child to be able to participate we must know each of them as individuals. For children with SEND, teaching must be closely linked to their IEP targets. What is good provision for a child with SEN is good for all children i.e. an abundance of activities that allow children to learn visually,

through speaking and listening and kinaesthetically (working both collaboratively and independently).

We respond to children's diverse learning needs by:
- creating effective learning environments
- securing their motivation and concentration
- providing equality of opportunity through a range of teaching approaches and modifying these for individual needs
- using appropriate assessments
- setting targets for learning

PUPIL VOICE
Pupils have been involved in the creation of this policy through discussions with the school council and termly pupil voice discussion with subject lead. They are involved in the delivery of each topic when teachers explore the pupils' prior learning at the beginning of new topics.

This policy will be reviewed annually.

Date completed: September, 2024