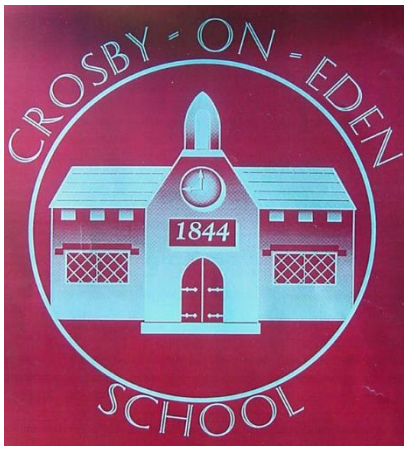

CROSBY-ON-EDEN SCHOOL

"Enjoying achieving; achieving enjoyment"

MATHEMATICS POLICY

Date Policy adopted by Governors	**September 2018**
Review date	**September 2020**
Review schedule	**Biennial**
Review responsibility	**Learning & Teaching Sub-Committee**
Signed (Head)	**Signed (Chair of Governors)** *Mr. J. Ditchburn*

Review Schedule

Revisions made	By Whom	Date
Updated to reflect the use of 'Power Maths' scheme throughout KS1-2 from Sep 18	K Ord	24.09.18

1. Aims

The 2014 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

2. The National Curriculum for Mathematics

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The 2014 National Curriculum 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.

3. School Vision

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)

At Crosby-on-Eden C of E Primary School all of our children are given the opportunity to develop their mathematical potential through a rich, engaging curriculum. We want our children to feel confident in using and applying mathematics in a wide range of situations. We believe that mathematics is uniquely powerful in helping us to make sense of, and describe, our world and in enabling us to solve problems. It is a fascinating subject, dealing with the nature of number, space, pattern and relationships. Useful and creative, it requires not only facts and skills, but also understanding gained through exploration, application and discussion.

In mathematics we aim to develop lively, enquiring minds encouraging pupils to become self-motivated, confident and capable in order to solve problems that will become an integral part of their future.

4. 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.

We operate the planning procedure agreed by the whole teaching staff based upon the National Curriculum Programmes of Study 2014 and the EYFS. 'Power Maths' will be used in KS1 and KS2 to enrich teaching and learning opportunities, promoting the ethos of 'everyone can'. Classrooms should be rich in discussion between pupils and between teacher and pupils.

5. Cross Curricular

Mathematics teaches children how to make sense of the world around them through developing their ability to calculate reason and solve problems. It is a core subject with a range of cross-curricular links but often, is taught discretely, using opportunities from other subjects to rehearse skills in a context. Numeracy involves developing confidence and competence in number work; shape, space and measure; handling data and the using and applying of these skills. At Crosby-on-Eden we aim to encourage the use of 'real life maths' and use a range of experiences to allow this (Forest Schools, trip planning, fund raising etc).

6. Computing

Information and Communication Technology can enhance the teaching of Mathematics significantly. It has ways of impacting on learning that are not possible with conventional methods. Teachers can use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. A range of software and resources are available to support work with the computers. The use of Mathletics also supports learning in the classroom and at home.

7. Assessment and Recording

Assessment for Learning is fundamental to raising standards and enabling children to reach their potential. Assessment in Mathematics takes place daily using a range of strategies such as marking, feedback and verbal discussions with children. Children are given the opportunity to address and correct any misunderstandings following feedback, which is evident in purple pen in their work. This information informs subsequent planning, need for intervention and next steps in teaching and learning.

The Mathematics subject leader keeps samples of children's work in a portfolio. This demonstrates work at various levels of achievement in Mathematics from across the school to help support teacher's in making their own judgements. Teachers meet regularly to review individual samples of work against NC statements and moderate judgements.

Progress is monitored with termly NFER assessments and regular arithmetic assessment. Records are collated to inform the school's School Development Plan (SDP) and Maths Action Plan. This tracking also includes termly tracking of standards for each child. This data is used by the Maths Subject Leader, class teachers and the Head Teacher to review progress towards end of year targets.

A yearly tracking document is completed by each class teacher showing termly assessments and is used to plan necessary interventions.

Formal assessments specific to year groups:

Year	Assessment
Foundation stage	Attainment on entry Attainment on exit
Year 1	Teacher assessment
Year 2	KS1 SATs
Years 3, 4, 5	Teacher assessment
Year 6	KS2 SATs

8. 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 assessment data is used to identify children who require additional support in specific areas.

9. Reporting

Parent consultation evenings are held in the Autumn and Spring terms where children's progress and achievement will be discussed. All parents receive a written report in the Summer term, on which there is a summary of their child's achievements and progress, together with a comment on the child's effort and engagement with mathematics.

10. Resources

Pupils should engage in activities from a variety of sources (mainly supported by Power Maths) – practical apparatus, tasks, textbooks and the environment. Through regular and frequent access to computers and tablets 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.

All classes have access to a wide variety of equipment including, multilink, Numicon, Cuisenaire rods, number lines as well as measuring and weighing equipment. Other equipment can be borrowed from the Maths Co-ordinator. Classes 2, 3 and 4 have access to the Mathletics materials and resources.

11. Equalities

We believe that equality at our school should permeate all aspects of school life and is the responsibility of every member of the school and wider community. We will always strive to ensure equality of access to maths for all pupils irrespective of their gender, ethnicity, disability, religious beliefs/faith tradition, sexual orientation, age or any other of the protected characteristics (Single Equalities Act 2010)

12. Inclusion

Wherever possible we aim to fully include all pupils in maths teaching. Through our maths teaching we provide learning opportunities that enable **all** pupils to make progress. We set suitable learning challenges and respond to each child's individual needs.

13. Roles and Responsibilities

The Headteacher

- To actively support and encourage staff, praising good practise and supporting staff development, in-service training and resources.
- To monitor teaching and learning through lesson observations, learning walks and book review analysis and to give informative and constructive feedback.
- Support staff development through training and provision of resources.

Subject Leader

- To work with the Headteacher and the Senior Leadership Team to monitor, plan and develop the subject to allow for progression, continuity and high standards of attainment in Mathematics.
- To support colleagues in the teaching of Mathematics and provide a strategic lead and direction in the subject.
- To manage periodic book reviews to ensure the curriculum is being covered and the marking policy is adhered to.
- To monitor progress in Mathematics, highlight and plan actions required.
- To take responsibility for auditing and organising Mathematics resources.
- To keep up to date with developments in Mathematics education and to inform colleagues as appropriate.
- To draw up annual action plan for Mathematics.
- To review the school policy for Mathematics as appropriate.

The Class Teacher

- To be responsible for the planning and teaching of Mathematics
- To manage and supervise their class' use of Mathematics equipment.

The Governors

- A sub-committee (teaching and learning) who have responsibility to oversee Mathematics. They will meet to review development plans.