West Pennard C of E Primary School

Maths Policy

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West Pennard CE VC School Maths Policy 2023

Our school vision…

'Since God so loved us, so we must love one another'
(1 John 4 v11)

Valuing our Christian foundation, we care for each other and our world.
We develop resilience, confidence, creativity and independence through our innovative and diverse curriculum; inspiring and motivating everyone to thrive.
Our motto, 'To Try is to Triumph' and growing Christian Values, are central to all that we do.

At West Pennard School we believe that Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems.

It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore 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.

Aims

The National Curriculum for Mathematics aims to ensure that all pupils:

- Become fluent in the fundamentals of mathematics, including the varied and regular practice of increasingly complex problems over time.
- Reason mathematically by following a line of enquiry, understanding relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can solve problems by applying their mathematics to a variety of 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 mathematical ideas. The programmes of study are, by necessity, organised into distinct areas, but pupils will make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They will also apply their mathematical knowledge to a range of other subjects through the links we make with our creative curriculum.

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 will always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems before any acceleration through new content or the introduction to new concepts.

Those who are not sufficiently fluent with earlier material will consolidate their understanding before moving on.

MATHEMATICS POLICY

Purpose
The purpose of this policy is to ensure that all staff are able to implement the teaching of Maths to a high standard in order for our pupils to achieve to the best of their abilities.

Our objectives in the teaching of Mathematics are:

- to promote enjoyment and the security of learning through practical activity, exploration and discussion;
- to develop confidence and competence with numbers and the number system through rapid recall;
- to develop conceptual understanding in order to solve problems through decision-making and reasoning in a range of contexts;
- to develop a practical understanding of the ways in which information is gathered and presented;
- to help children understand the importance of Mathematics in everyday life.

Context
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 most often, is best taught discretely, using opportunities from other subjects to rehearse skills in a context. Mathematics involves developing confidence and competence in number work; shape, space and measure; handling data and the application of these skills.
We aim to support children by equipping them with a range of computational skills and the ability to solve problems in a variety of contexts following a progression as set out in our Calculation Policy.

Leadership and Management
The subject leader's role is to empower colleagues to teach Maths to a high standard and support staff in the following ways:

- By keeping up to date on current issues; disseminating relevant information and providing training for staff members (either directly or through other professionals)
- Leading by example / modelling lessons or styles of teaching
- Having a knowledge of the quality of Mathematics provision across the school
- Identifying and acting on development needs of staff members
- Monitoring expectations, provision and attainment across the school and providing feedback to develop practice further in order to raise standards.
- Providing necessary equipment and maintaining it to a high standard.

National Curriculum
The Early Years Foundation Stage Curriculum feeds into the new National Curriculum and the revised Primary Framework for Mathematics. It is good practice to make use of cross curricular links to enable children to use their learning in a real life context. Therefore pupils are given plenty of opportunities within sessions to use and apply the mathematical skills and concepts that they have learned.
The school's Calculation Policy has been created to provide continuity throughout the school with all four number operations, which in turn will facilitate measured progress for children in school.

Staffing
Mathematics is always taught by a qualified teacher within the classroom and may be supported by a teaching assistant (TA) within the class during the Maths lesson or at other times in the day through interventions.
The level of TA support is determined by the needs of the children. All children receive quality first focused teaching. TA support can be used across the whole of the Maths lessons, including starters and plenaries. Should a teacher not teach a Maths lesson (perhaps due to management time or professional development opportunities), the class teacher remains responsible for the effective delivery of the learning outcomes and must ensure sufficient time for the person covering to become familiar with the planning and expectations for the lesson. Children not on course to reach ARE from Key Stage 1 to 2 are given additional

interventions (Rapid Maths, Pre- and Post- teaching etc). Class teachers are responsible for the content of these sessions although they may be delivered by a different teacher or HLTA.

Entitlement
At our school, we teach Mathematics to all children, whatever their ability or individual need. Through our Mathematics teaching, we provide learning opportunities that enable all pupils to make good progress. Every child has an equal right to receive the Maths curriculum in daily Maths lessons of approximately one hour. There may be times when it is more appropriate for Foundation Stage or Key Stage 1 sessions to be shorter and for Key Stage 2 sessions to be longer or split over several sessions.

Special Educational Needs
All children will have their specific needs met through differentiated work, where appropriate, or the level of support that they are given, in conjunction with their targets. TA support time is planned for and provided in relation to identified needs for individuals and groups.

Implementation
Our Mathematics curriculum is delivered using the Early Years Learning goals and the Mathematics Programmes of Study as a tool to ensure appropriate pace, progression and coverage of the subject. Our curriculum planning in Mathematics is based on the White Rose Maths Hub resources. The coverage of the Programmes of Study is reviewed continually by class teachers and planning is adjusted accordingly to ensure appropriate coverage of all mathematical strands. Number forms the starting point for all in the Autumn Term to form a grounding for all the other areas of Mathematics as the year progresses.
Teachers strive to deepen understanding once a concept is mastered. Once a child understands a mathematical concept, they are then required to solve problems and carry out investigations to deepen their conceptual understanding while also becoming more sophisticated in their Mathematical approach.

Resources
All classes have access to the appropriate resources for their varying topics of learning in Maths. When additional resources are required, further items are ordered through the Maths subject leader. Resources are located in classrooms and in the Maths cupboard in the Library.

Computing
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 hardware (BenQ Screens, Chromebooks, ipads and desktops) is available to support work across the school. The school also subscribe to "TT Rockstars" and "Doodle Maths" so that children can practice at home linked to their learning in class.

Children's Books
To ensure continuity through the school as well as clear evidence of the children's learning journey in maths, a set format has been agreed for all books. This clearly enables progress in children's achievements to be seen and links to the assessment of their learning. The Power Maths scheme supports this.

Assessment, Targets 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 and feedback of work and verbal discussions with children which often takes place in daily intervention sessions during a Maths lesson. This information informs subsequent planning and next steps in teaching and learning. Detailed assessment of pupils' progress is recorded using an online data package - insight. By tracking progress continually, all teachers and leaders have a clear understanding of how the children are progressing and where development is needed. This tracking informs Pupil Progress Meetings (PPM) on a termly basis where the progress of the cohort as a whole and individuals is considered and discussed. The outcomes of regular assessments on what has been taught are recorded and combined with the teacher assessment.

Assessments specific to year groups:
Foundation stage: Attainment on entry (baseline), Early Learning goals.

Year 1: Detailed teacher assessment, NFER and Rising Stars Tests, Hot and Cold tasks and Brainboxes.
Year 2: Detailed teacher assessment, NFER and Rising Stars Tests, Hot and Cold tasks and Brainboxes, KS1 Optional SATs
Years 3, 4, 5: Detailed teacher assessment, NFER and Rising Stars Tests, Hot and Cold tasks and Brainboxes.
Year 6: Detailed teacher assessment, NFER and Rising Stars Tests, Hot and Cold tasks and Brainboxes and KS2 SATs

Monitoring and Evaluation
The quality of teaching and learning is monitored through lesson observations, learning walks, book looks and pupil interviews. Continuity and progression across the school is monitored by the Maths subject leader, as is the implementation and impact of Assessment for Learning. Actions identified in the SDP and Maths Action Plan, intended to raise standards, are also monitored for implementation and, when appropriate, impact. The Maths Subject Leader will also provide an annual summary report to the Head Teacher, derived from an analysis of the Fischer Family Trust Data (October) and IDSR (July), in which the strengths and weaknesses in Mathematics are evaluated and areas for further improvement are identified. The Governing Board is briefed to oversee the teaching and learning of Mathematics and review progress. Termly meetings with the link Governor for Mathematics also takes place and a report is shared with the Full Governing Board.

Partnerships with parents
Parents are informed of developments in Mathematics on a regular basis. Workshops are set up for parents when new initiatives are set up. An explanation of mathematical methodology is shared with parents through the Maths pages of the school website. New parents to the school are briefed on how to help their child with Maths at the Induction Evening for children starting school.