

Subject Key Summary Points

Subject	Maths
Overall Curriculum	<p>Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into 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 across the wider curriculum – for example, in science, DT, Computing and other subjects.</p>
Pedagogy	<p>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. Our pedagogy is that children should learn facts, develop methods and have strategies to tackle maths in a range of situations and contexts. This begins in the EYFS as we believe that early acquisition of mathematical knowledge leads to greater success as pupils move through the school.</p> <p>Support and scaffolding is provided in all mathematics lessons and is done in various ways, such as:</p> <ul style="list-style-type: none"> • setting challenging age-related knowledge, reasoning and problem-solving tasks based on systematic, accurate assessment of pupils' prior skills, knowledge and understanding; • small, differentiated target steps for all children to move through at a pace that suits their needs; • timely support and intervention; systematically and effectively checking pupils' understanding throughout lessons; • ensuring that marking and constructive feedback is personal, frequent and of a consistently high quality - enabling pupils to understand how to improve and develop their work - with planned in time for children to respond to feedback;
Assessment	<p>Assessment is regarded as an integral part of teaching and learning and is a continuous process. It is the responsibility of the class teacher to assess all pupils in their class. This is mainly achieved through mini-plenaries, questioning, marking, T.A feedback and pupil self-assessment. Pupils are more formally assessed at the end of each unit and the end of each term.</p> <p>White Rose pre and post units assessments are used and termly NTS standardised assessments are used. Teachers use the pupil results to analyse for gaps to plan follow up learning. Summative assessment is used to monitor attainment and progress.</p> <p>During our daily maths we incorporate assessment opportunities to check learning is not too easy/not too hard and to test the recall of facts and methods. This ensure pupils can quickly and accurately recall the core facts essential in securing long term mathematical success.</p>
Culture	<p>Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of</p>

	<p>history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and all forms of employment. A high-quality education in maths, 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.</p>
Systems	<p>The school follows the National Curriculum (2014) and teachers use the White Rose scheme of learning as the basis for their planning. This is supplemented with other resources and in particular: Ready to Progress, KIRFs, Classroom Secrets, Mastering Number Approach, Daily Maths and TTRS. We begin in the EYFS with a highly structured and carefully sequenced programme of mathematics, with a focus on core facts. Children will learn facts – and know why facts are linked (Declarative knowledge). They will learn methods – and know how methods work (Procedural knowledge) And they will develop strategies – and know why these strategies work (Conditional Knowledge)</p> <p>Our systems ensure pupils experience a detailed and carefully sequenced curriculum and within that regular, planned rehearsal and practice in order to ensure that they securely grasp the concepts taught. The aim is for our pupils to become 'free' mathematicians. Pupils need to recall facts swiftly and accurately. This leads to an automaticity and frees up working memory for new learning. We also aim to ensure there is a balance of rehearsal, recall and practice with explain and prove reasoning activities.</p>
Policy	<p>The Policy for mathematics aims to ensure that all pupils:</p> <ul style="list-style-type: none"> • 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. We want pupils to be able to work systematically through problems without the need to rely on trial and error methods. <p>Welcome to Lew Trenchard Church of England Primary School</p>

Perceptions	<p>The monitoring of the standards of children’s learning and the quality of learning and teaching mathematics is the shared responsibility of the S.L.T and the subject leader. The work of the subject leader also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. A named member of the school governing body is briefed to overview the teaching of mathematics in the school. Monitoring shows the following of systems is strong and teachers are trying to strike a balance between doing and deriving. The areas we are targeting are our problem solving skills and reasoning responses for all pupils. Effective feedback and pace of moving learning on also a continuing challenge- we want marking to be honest and useful for our pupils to move on in their learning and avoid misconceptions becoming embedded.</p> <p>At the last maths pupil survey: In summary, positives are:</p> <ul style="list-style-type: none"> • 94% of children like Maths • 97% pupils say they know what to get to help them - great resourcefulness (+2% since last year) • 95% of pupils say they are a 'good problem solver' or that they think they're getting better. • 99% children say their teachers show them pictures and equipment at least 'sometimes'. <p>Targets:</p> <ul style="list-style-type: none"> • 49% children say there are 'sometimes' challenges in their lessons - raise this so pupils feel they are challenged every lesson. • Less pupils this year are confidently saying ‘yes’ they are a good problem solver. All classes revise ‘Penny the Problem Solver’ so pupils are more aware of the characteristics of a good problem solver. Reward these skills when seen in class.
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