



Mathematics at Littledean C of E Primary School

The 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

INTENT	<p>At Littledean C of E Primary School, we aim to instil a love of maths in our children. We aim to provide an interesting, varied curriculum that interests and intrigues our children whilst meeting the needs of all backgrounds, cultures and abilities.</p> <ul style="list-style-type: none"> • We believe <u>all</u> children can achieve in mathematics. • We believe <u>all</u> children have the right to be taught how to become numerate. • We want <u>all</u> children to become curious and question maths, understand how and why maths works, to understand its relevance and become resilient to finding solutions to challenges in maths. • We want <u>all</u> children to become fluent mathematicians who can reason and solve a range of mathematical problems. • We want <u>all</u> children to be able to work independently and in co-operation with others. • We want <u>all</u> children to be able to use and apply mathematics across the curriculum, and to understand the application of mathematics in real life contexts and scenarios.
IMPLEMENTATION	<p>Planning</p> <ul style="list-style-type: none"> • Long Term: National Curriculum and Development Matters (EYFS). • Medium Term: We do not follow a set scheme as we believe this restricts the learning experiences for our children. From a gap analysis of summative assessments (3x per year), teachers are able to identify units of work which require coverage each term ensuring all objectives from the National Curriculum are covered by the end of the academic year.

- Short term planning is supported by the use of the White Rose Maths Hub materials, our school calculation policy, NRICH and other online and paper-based resources our teachers feel are appropriate for the children in their class. By using a variety of planning resources we believe we provide a bespoke teaching and learning experience that is designed to inform and inspire our children.

Teaching and Learning

- We adhere to a “mastery approach” and strive for all children to “achieve mastery in mathematics”. For us, this means ensuring children have a deep conceptual understanding (comprehension of method – explaining why? how?) as well as a procedural understanding.
- Prior to teaching a new unit, we use pre-learning tasks (formative assessment) to help assess where children currently are in their learning. Teachers then use this information to plan which children need to spend more time on conceptual understanding and procedural fluency (fluency) and which are ready to move onto deepening their understanding through reasoning and problem-solving activities. (FOCUS materials).
- Children with additional needs are included in whole class lessons wherever possible and teachers/TAs provide scaffolding and the relevant support, as necessary. For those children who are working outside of their year group curriculum, individual learning activities are provided to ensure progress.
- We use a CPA approach across the school to ensure mastery of concepts – **concrete** manipulatives and **pictorial** representations are used to support conceptual understanding before moving onto the **abstract**.
- Key vocabulary is introduced and revisited regularly to develop language acquisition.
- Feedback is given in line with our marking policy.
- We encourage a growth mind-set approach – we can’t do it, yet!
- Our calculation policy ensures a consistent approach to teaching the four operations over time.
- Homework grids will contain activities to build on children’s skills and knowledge in maths.
- In KS2 year groups are taught separately.

Assessment

- Pre- and Post-Learning tasks are used to establish starting points and assess learning and progress made throughout the unit.
- Formative assessment is used within every lesson to help identify children who need more support to achieve the intended lesson outcome and who are ready for greater stretch and challenge. Children identified as requiring extra support may be given on-the-day support (afternoon registration) to ensure they are ready for the following day’s learning.

	<ul style="list-style-type: none"> • We use topic related quizzes to check knowledge and understanding.
IMPACT	<p>We measure the impact of our curriculum through the following methods:</p> <ul style="list-style-type: none"> • Monitoring by the Subject Leader will include planning scrutinies, book looks, lesson observations and pupil conferencing to ensure appropriate coverage of the curriculum. • Children are observed to persevere when attempting to solve problems and choose the equipment and strategies they think are best suited to each problem. • Children are developing skills in being able to reason verbally, pictorially and in written form. • Children can talk with confidence about what they have learned, using correct terminology. They are using sentence stems to help them explain their reasoning, both through spoken and written forms. • Children show a high level of pride in the presentation and understanding of their work. • Books show a range of activities showing evidence of fluency, reasoning and problem-solving. • Post-learning tasks are used to assess learning and progress at the end of each unit. • Most children reach end of year expectations. • Children in EYFS are assessed regularly using the Early Learning Goals • 3 assessment windows across the year – NTS assessment resources. The results are analysed and used to identify gaps in children's knowledge and plan for interventions. Progress is monitored and reported to Governors. • Statutory KS1 and KS2 SATs and the year 4 times table check. • Benchmarking against national data.