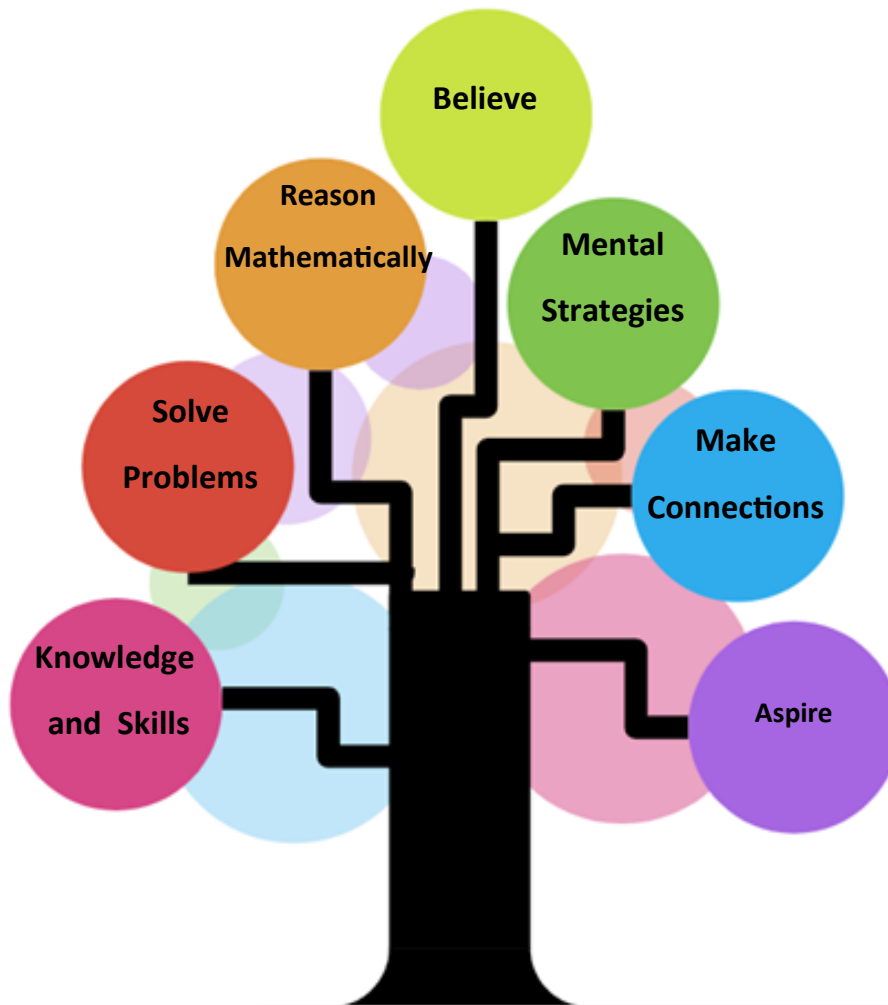




Mathematics : INTENT



At Ladymount Catholic Primary School, we believe mathematics is an important part of children's development throughout school, right from an early age.

We intend to deliver a curriculum in a way that:

- is coherently organised to ensure that children progress through core mathematical concepts in small, connected steps that enable children to know and remember more
- delivers maths in line with the National Curriculum 2014
- increases pupil confidence by ensuring that they master mathematical concepts at each stage of their learning
- gives each pupil a chance to **BELIEVE** in themselves as mathematicians and develop the power of resilience and perseverance when faced with mathematical challenges
- develops pupils' ability to **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- enables children to develop **fluent mental strategies** through varied and frequent practice
- develops pupils' ability to **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.

- Makes rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems
- creates a lively, exciting and stimulating environment in which to engage with mathematics
- promotes the concept that acquiring mathematical knowledge and skills provides the foundation for understanding the world around the children
- allows time for partner talk in order to stimulate and develop a curiosity for maths
- challenges children to stretch themselves and take risks in their learning
- creates a sense of awe and wonder surrounding maths and provides equal opportunities for children to apply their mathematical knowledge to other subjects (cross-curricular links)
- engages all children and entitles them to the same quality of teaching and learning opportunities, striving to ACHIEVE their potential, as they belong to our school community
- provides children with the opportunity for low entry-high ceiling challenges
- Recognises that mathematics underpins much of our daily lives and therefore is of paramount importance in order that children ASPIRE and become successful in the next stages of their learning



Mathematics: IMPLEMENTATION



At Ladymount Catholic Primary School, we adopt a mastery approach to teaching mathematics. This is based on a set of core teaching approaches, which are embedded across a sequence of learning:

- coherent, small connected steps
- movement between the concrete, pictorial and abstract (CPA)
- opportunities for the children to think mathematically
- the use of variation to enable children to think deeply
- fluency, to ensure that pupils regularly practice and recall basic facts
- keep up and catch up
- effective modelling to connect thinking and expose (and address) misconceptions
- we follow the National Curriculum and use White Rose Maths and NCETM as a guide to support teachers with their planning and assessment
- the calculation policy is used within school to ensure a consistent approach to teaching the four operations over time
- at the start of each new topic, key vocabulary is introduced and revisited regularly to develop language acquisition, embedding as the topic progresses
- children are taught through clear modelling and have the opportunity to develop their knowledge and understanding of mathematical concepts. The mastery approach incorporates using objects, pictures, words and numbers to help children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding at all levels.
- reasoning and problem solving are integral to the activities children are given to develop their mathematical thinking
- children are encouraged to explore, apply and evaluate their mathematical approach during investigations to develop a deeper understanding when solving different problems / puzzles
- a love of maths is encouraged throughout school via links with others subjects, applying an ever-growing range of skills with growing independence
- children with additional needs are included in whole class lessons and teachers provide scaffolding and relevant support as necessary.

Emphasis is placed on regular Continued Professional Development (CPD) to ensure that all staff have secure subject knowledge to deliver the curriculum effectively. There is a balance between training to develop subject knowledge and that which focuses on the teaching of mathematics (pedagogy).

In order to develop a positive mathematical mind-set for both pupils and parents, mathematics is promoted regularly with opportunities for children to engage in whole school events such as NSPCC Number Day and maths themed weeks.

Implementation (Planning and Assessment)

At Ladymount staff use a variety of resources to support the planning and delivery of high-quality maths lessons. Teachers draw upon various resources including those produced by White Rose Maths and Maths No Problem. The White Rose long-term overviews provide the basis to ensure coverage of the maths curriculum but this is delivered flexibly to suit the requirements of the school. Teachers work within their year groups to plan and deliver lessons that suit the particular learning styles of the children within the year group. They will use their own judgement and formative assessment to ensure a flexible approach is adopted which recognises the pace of learning within the classroom. Lessons include individual, paired and group work with CPA approach embedded within all lessons. Planning will demonstrate the various challenges available to the children, together with opportunities for self, peer and teacher assessment.

Across a series of lessons children will engage in mathematical discussions, investigations, problem solving, practical tasks and applying written methods.

In order to inform planning and assess children's progress, teachers use the Balance assessment system and this is regularly updated. Termly, children are assessed through the application of tests; this summative assessment will be used in conjunction with the Balance assessment to identify next steps and therefore inform planning. Children will be provided with feedback either verbally or through written marking and this may be done as whole-class feedback to address common misconceptions or directed to individual children.



Mathematics : IMPACT



- Each child achieves the objectives (expected standard) for the year group
- Children demonstrate a quick recall of facts and procedures. This includes the recollection of the times table.
- Children show confidence in believing that they will achieve
- Children have flexibility and fluidity to move between different contexts and representations of maths
- They have the chance to develop the ability to recognise relationships and make connections in maths lessons
- Mathematical concepts or skills are mastered with children showing it in multiple ways, using the mathematical language to explain their ideas, and independently applying the concept to new problems in unfamiliar situations.
- Children show a high level of pride in the presentation and understanding of the work.