

Mathematics Vision Statement

The language of mathematics is international. The basic skills of mathematics are vital for the life opportunities of our children. Our aim is for all children to think mathematically, enabling them to reason, solve problems and assess risk in a range of contexts.

At Lambley Primary School, our Mathematics Mastery curriculum has been developed to ensure every child can achieve excellence in mathematics. Children can experience a sense of awe and wonder as they solve a problem for the first time, discover different solutions and make links between different areas of mathematics. It provides pupils with a deep understanding of the subject through a concrete, pictorial and abstract approach. This ensures pupils fully understand what they are learning.

Key features of our Maths Mastery curriculum:

- High expectations for every child
- Fewer topics, greater depth
- Number sense and place value come first
- Focus on mathematical thinking and language
- Resources to support
- Problem solving is central
- Calculate with confidence- understand why it works

Mathematics Mastery places emphasis on the cumulative mastery of essential knowledge and skills in mathematics. It embeds a deeper understanding of maths by utilising a concrete, pictorial, abstract approach so that pupils understand what they are doing rather than just learning to repeat routines without grasping what is happening.



Aims

- To implement the current legal requirements of the Foundation Stage (FS) and the National Curriculum (NC).
- To foster positive attitudes, fascination and excitement of discovery through the teaching and learning of mathematical concepts.
- To ensure pupils become fluent in the fundamentals of mathematics, developing conceptual knowledge and an ability to recall and apply knowledge rapidly and accurately
- To ensure that pupils can reason mathematically and solve problems
- For our children to develop a 'can do' attitude and perceive themselves as mathematicians.
- To broaden children's knowledge and understanding of how mathematics is used in the wider world.
- For our children to use and understand mathematical language and recognise its importance as a language for communication and thinking.

Organisation of teaching and learning

Structure of a lesson

1. Do Now Task
2. New Learning
3. Paired Language Development
4. Develop Learning
5. Independent Task
6. Plenary

Foundation Stage

In the Foundation Stage (FS), teaching is planned through adult supported teaching and learning. Daily opportunities to informally develop mathematical understanding through child-initiated activities and routines are capitalised upon.

Key Stage 1 and 2

In Key Stage 1 (KS1) and 2 (KS2), teaching follows the National Curriculum and White Rose Hub materials. This involves a daily mathematics lesson, pre/ post teaching sessions and specific Times Tables sessions.

Teaching and learning in all three key stages takes place in a range of environments.

Planning

At Lambley, we use the White Rose Mathematics Hubs resources to support us in our planning.

- Long term plans map out the units to be covered each term, during each Key Stage.

- Medium term plans identify learning objectives and outcomes for each unit, as well as indicating the skills being taught.
- Short term plans prepared by each teacher, highlight the skills and objectives of the lesson, and identify resources and appropriate differentiation. They also indicate key questions and stem sentences.

Resources

- Each class has a range of resources to support learning. These are easily accessible for the children so that they can lead their own learning.
- Central resource / equipment cupboard (middle area).
- Different environments - classrooms, outdoor learning spaces and the hall.
- A range of ICT software to support the teaching of specific concepts including Mathletics which can be used at home.
- The White Rose Mathematics Hub Mastery resources are used by all classes for planning and activities.

Times Tables Scheme

Effective understanding and recall of times tables is the foundation of most of the mathematics children will do at primary school and the mathematics curriculum involves children being fluent in number skills. Our times tables scheme includes inverse operations, a range of representations and problem solving, which are all vital skills in mathematics. The children are tested weekly and our challenge is linked to beating superheroes which engages and enthuses the children.

Assessment

In Mathematics Mastery assessment is continuous. From the beginning of every lesson, teachers and teaching assistants will be assessing what their pupils are, or are not understanding and use this to scaffold each segment of the lesson. Interventions will be both planned for and 'live', meaning that misconceptions are dealt with immediately and high attaining pupils are challenged appropriately. Pre and post teaching ensures that all children can achieve and are prepared for the following lesson.

Foundation Stage

- Reception Class practitioner's ongoing observational assessments made early in Autumn Term 1 ascertain a baseline which then informs subsequent teaching and learning for each child.
- Future attainment is noted using photographs and observational notes. Progress is recorded in each child's Learning Journey and the next steps to be taken are identified. Progress is monitored termly.
- Statutory assessments are made on entry and on exit of the FS.

KS1 and KS2

- In the daily mathematics lesson, formative assessments are made on a day-to-day basis. Practitioners observe, question and evaluate lesson outcomes to further determine progress made and the next steps in learning.
- Pre/ post assessments take place for each new unit of work.
- Summative assessments are made at the end of each term to monitor children's knowledge and understanding of concepts taught. White Rose Mathematics Hub tests are used in all year groups from 1 - 6.
- Progress is discussed at termly 'Pupil Progress Meetings' and focus children are indicated.
- 'Pupil conferencing' involves 6 'tracker' children from Year groups 1 - 6 who are interviewed during the Autumn, Spring and Summer terms by the maths subject leader.
- Statutory assessments are made at the end of each key stage.

Monitoring procedures

The Head teacher and maths subject leader play a central role in the monitoring and evaluation of the quality of teaching and learning of mathematics in the school.

The monitoring strategy:

1. Children's work and medium term planning scrutinies are conducted.
2. Pupil progress meetings are held termly.
3. Lesson 'drop ins' and observations take place in all classes throughout the year.
4. Pupil conferencing takes place termly.

The subject leader is responsible for monitoring attainment and progress, the outcomes of which are collated in the subject leadership folder and fed back to staff at an appropriate time. Teaching and learning is monitored at a time indicated in the **School Improvement Plan: Monitoring and Evaluation timetable**.

Health and Safety

The general teaching requirement for health and safety applies in this subject.