

Lemington Riverside Primary School

Mathematics Department Policy

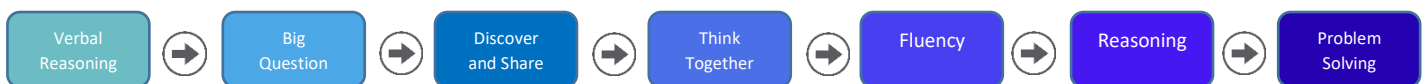
2020-2021

Calculation Fluency

Children practise and develop their calculation fluency in a variety of different ways. Each lesson will have fluency embedded throughout, resulting in these skills being solidified, demonstrated and then deepened on a daily basis. Additionally, children use 'Times Tables Rockstars' both in class and at home to deepen and further their times tables knowledge. These fluency skills are then assessed and tracked through the use of maths passports, by which children's progress is monitored at least twice per half term. Maths passports are utilised weekly to monitor children's mathematical fluency from Reception all the way through to year 6 and are checked during pupil progress meetings.

Calculation Policy and Daily Teaching

Early Years pupils will partake in 45 minutes of discrete Maths lessons each day; additionally, our highly skilled Early Years team maintain the philosophy that we live in an entirely mathematical world and aim to react to any learning opportunity that arises. KS1 and KS2 children will receive at least 6 hours and 15 minutes of Maths teaching per week. These lessons are catered towards the needs of the children using intra and cross-curricular links. All teachers follow the calculation policy to ensure that transitions between year groups are swift and consistent. Teachers will use Power Maths books to inform the content of a lesson and their journey through a learning module; staff will use the White Rose Maths medium term plan. Staff will use mastery resources found on White Rose Maths, nRich, NCETM and Classroom Secrets to inform the content and challenge of a lesson. All lessons must include fluency, reasoning and problem solving elements. All children work in mixed ability partners and are given regular time to discuss and solve problems and challenges. Therefore, teachers must strive to embed verbal reasoning and collaboration throughout all elements of a lesson by adopting a 'ping-pong' style of teaching. Pedagogically, our staff strongly believe in a transactional and non-transmissive way of teaching where children experience learning through the real world, through discussion and ultimately through our interactions with one another. Teachers follow a fully researched, tested and consistent model that incorporates all collaborative and mastery elements (as displayed below).



Assessment

Teachers use a wide range of methods to constantly assess the Maths attainment and next steps for children within their class. As a whole school, we use the 'iTrack' software to effectively track the learning of children within each cohort and across the department. We aim to achieve 75%+ of pupils at ARE by the end of Key Stage Two. Maths passports will be monitored using a standardised class tracker system, which will be transferred to new class teachers at the end of each academic year. Teachers should show evidence of children's work at least 3 times per week in the Maths books. Teachers will use a plethora of sources to ascertain their judgements – evidence of a child's progress can be found in their Maths books, their end of unit assessments and most importantly through ongoing formative assessment carried out by staff.

Special Educational Needs (SEN) and Greater Depth (GDS)

Our staff truly believe in the mastery approach to teaching maths; every child (regardless of their attainment) will move through the same learning objectives at the same rate as their peers. Staff are well equipped to make key adjustments if a child is working significantly above or below age related expectation and will challenge children based on the 'depth' of their questioning, the tasks given (within the specific learning objective) and the manipulatives used to support and scaffold the learning of mathematical concepts. Children who are working significantly above national expectation are challenged through their ability to make connections within the same mathematical concept as the rest of the class; this can often come in the form of pupils representing different mathematical concepts in a variety of ways. For further information about the teaching and assessing of children with Special Education Needs and Disabilities, please refer to the whole-school SEND policy or speak to Loise Annal (SENDCO).

The 'Big 5'

Repetition is at the heart of any successful mathematic curriculum, and it is imperative that we revisit and consolidate learning from all areas of maths on a weekly basis. For 15 minutes daily, from Nursery through to Year 6, we provide children with an opportunity to develop and cement their understanding of key mathematical concepts from all facets of the Maths curriculum. Over the course of week, every child will be exposed to one 15-minute session on:

Number/Place
Value

Statistics

Measurement/
Time

FDP

Geometry/
Shape

Please refer to the school's 'Big 5' document for further details

Vocabulary

As a whole school, we must model and expect the correct use of mathematical language in all lessons; teachers must be aware of and use the correct terminology which is in our calculation policy and within our 'Power Maths' books. Development of high quality spoken language in the classroom is a priority, alongside general social communication skills and the development of verbal presentation skills. The use of correct and high-level vocabulary is essential; correct terminology should be used from EYFS to Year 6.

Manipulatives in Mathematics

Manipulative materials are objects designed to represent explicitly and concretely mathematical ideas that are abstract. They have both visual and tactile appeal and can be manipulated by learners through hands-on experiences. At Lemington Riverside, we believe that children of all ages and attainment levels can access maths at a greater depth through the use of manipulatives. Staff endeavour to use concrete resources to tackle all concepts in the curriculum where possible.