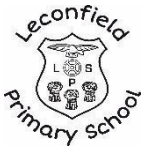


Maths 3 I's



Intent	Research link	Implementation	Impact
<ul style="list-style-type: none"> ❖ Ensure our children have access to a high quality maths curriculum that is both challenging and enjoyable. <p>To provide all pupils who join our school with the same opportunities, regardless of the point in the year in which they join.</p> <p>C- Curiosity - To make pupils curious about maths and want to find out more.</p> <p>O - Open minded - To ensure that pupils are challenged to ask questions in maths to deepen their own knowledge and understanding.</p>	<p>National Curriculum</p> <p>School adheres to the statutory content of the National Curriculum to ensure all children have access to appropriate age related knowledge and skills</p> <p>National Numeracy for Everyone- KPMG. 2008. The Long Term Costs of Numeracy Difficulties. Every Child A Chance.</p> <p>Competency in numeracy is an important factor not only for the wider economy, but also for social justice and mobility. Numeracy issues are linked to reduced employment opportunities, increased health risks, higher rates of depression, increased risk of exclusion from school and increased risk of involvement in the criminal justice system. On the basis of existing data, KPMG estimated that low numeracy therefore costs the public purse £765 million per year when isolating the costs to those with only numeracy difficulties.</p> <p>Ofsted maths review - May 2021</p> <p>Careful sequencing of content, instruction and rehearsal can also show pupils new and consistent patterns of useful information. These then form the basis of further concepts, rules and principles that pupils can store in their long-term memory.</p> <p>Successful curriculums illustrate the importance of detail, sequencing and alignment of content, instruction, rehearsal, assessment and mechanisms to continually upgrade.</p>	<p>National Curriculum Programmes of Study and Scheme of Work.</p> <p>Mathematics is planned for, following the EYFS Framework and KS1 and KS2 school curriculum.</p> <p>Mathematics is planned using the National Curriculum and also White Rose Maths.</p> <p>Whilst the National Curriculum forms the foundation of our curriculum, we make sure that children learn additional skills, knowledge and understanding and enhance our curriculum as and when necessary.</p> <p>Maths is structured with a focus for each day. This allows pupils to review concepts each week and build up their skills, so that they are able to learn more, know more and remember more.</p> <p>Mathematics is taught as an exclusive subject in order to promote fluency but children are also provided with real life problems so that they are made aware of the importance of mathematics in everyday life.</p>	<ul style="list-style-type: none"> ❖ Children will use their Mathematics knowledge and skills, in all curriculum areas, to enable them to know more, remember more and understand more. ❖ Children will recognise the importance of Mathematics as a facilitating subject to enable them to access other areas of learning and operate successfully is everyday life both now and in the future. ❖ Children will be curious and open minded learners who want to challenge themselves to develop their skills and find out more.

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<p>❖ Provide our children with a variety of mathematical opportunities, which will enable them to make the connections in learning needed to enjoy greater depth in learning.</p> <p>C- Curiosity - To make pupils curious about maths and want to find out more.</p> <p>O - Open minded - To ensure that pupils are challenged to ask questions in maths to deepen their own knowledge and understanding.</p>	<p>Ofsted Maths review 2021</p> <p>Linked declarative and procedural knowledge are ideally sequenced together to reflect the reciprocal learning relationship between them. This is because:</p> <ul style="list-style-type: none"> ● familiarity with the facts being used helps with learning and understanding the linked method ● familiarity with the method helps to make associated facts firm and precise in the mind <p>If core core content has been sequenced well and pupils have learned it thoroughly, they are less likely to forget and are therefore unlikely to need to 're-learn' it later</p> <p>Teachers should therefore ensure that more pupils experience success in solving word problems, by sequencing the teaching of strategies to 'convert' the deep structure of word problems into simple equations.</p> <ul style="list-style-type: none"> ● Teachers teach useful, topic-specific strategies to pupils, as well as how to match them to types of problem. ● Pupils are confident using linked facts and methods that are the building blocks of strategies, before strategies are taught. ● Teachers encourage pupils to use core, systematic strategies rather than resorting to guesswork or unstructured trial and error. 	<p>The systematic teaching of number and place value has a high priority throughout school.</p> <p>In Foundation Stage, pupil fluency is developed by using a visual, practical base to develop conceptual understanding and recall.</p> <p>Pupil's mathematical reasoning is developed through the use of concrete objects and spoken language to explain and justify.</p> <p>Pupils have daily reasoning problems of the day to develop their reasoning skills.</p> <p>School has a comprehensive Calculation Policy, which enables staff to teach standard methods systematically and progressively across all age groups.</p> <p>White Rose Maths is used as the spine for delivery of the Mathematics across school. This ensures consistent coverage, and provides real life opportunities for pupils to make connections and apply their mathematical knowledge.</p> <p>Daily Target Maths lessons provide opportunity for children to become fluent in the fundamentals of mathematics, thus increasing the likelihood of rapid progress.</p> <p>All children from Year 2 upwards have access to Time tables Rockstars, which is a web-based ability appropriate timetables programme, which children access at home, and school.</p> <p>Children in the Foundation Stage and Year 1 have access to NumBots as the foundations to Times Tables Rock Stars.</p>	<p>❖ Children will make at least good progress in Mathematics from their last point of statutory assessment or from their starting point in EYFS.</p> <p>❖ Children will use their Mathematics skills as a key tool in helping them to learn, and as a result, know more, remember more and understand more.</p> <p>❖ Children are curious about new concepts and open minded in attempting and taking on challenges.</p>

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<ul style="list-style-type: none"> ❖ Ensure children are confident mathematicians who are not afraid to take risks. ❖ Fully develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement. <p>R- Respectful - Pupils are respectful of each others ideas and opinions in maths, understanding that it is important to attempt questions in a safe, respectful environment.</p> <p>O - Open minded - To ensure that pupils are challenged to ask questions in maths to deepen their own knowledge and understanding.</p> <p>C- Curiosity - To make pupils curious about maths and want to find out more.</p>	<p>Ofsted maths research May 2021 Pupils are more likely to develop a positive attitude towards mathematics if they are successful in it, especially if they are aware of their success.</p> <p>If teachers ensure that anxious pupils acquire core mathematical knowledge and start to experience success, those pupils will begin to associate the subject with enjoyment and motivation.</p> <p>Teachers should try to put pupils on the causal pathway that leads from success to motivation by focusing on early proficiency, rather than expecting pupils to learn through making mistakes. This proficiency-first approach is likely to prevent pupils developing anxiety.</p> <p>Proficient mathematicians are able to demonstrate success in problem-solving lessons.</p>	<p>In Foundation Stage, pupil fluency is developed by using a visual, practical base to develop conceptual understanding and recall.</p> <p>In Key Stage 1 we ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources.</p> <p>Pupils all complete a reasoning problem of the day which encourages pupils to develop their skills in problem solving and become independent learners.</p> <p>In Key stage 2 pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.</p> <p>Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning in all areas of the maths curriculum.</p>	<ul style="list-style-type: none"> ❖ Children will be confident mathematicians who have a love and passion for learning maths and are always willing to take risks in maths when problem solving. ❖ Children will have a confident attitude towards mathematics. They will use arithmetic and timetables fluently and make connections in order to solve real life problems. ❖ Children are respectful of the answers and methods which other pupils might have. Listening to and respecting all ideas and methods and in turn understanding that they can learn from the ideas of others.