



*'Working and growing together'*

**Subject Leader Curriculum Intent, Implementation and Impact Overview**

**Subject: Mathematics**

**Subject Leader: Steph Crossley**

Intent	Research link	Implementation	Impact
<p><b>Intention 1:</b>  <b>To build a Mathematics curriculum which develops learning and results in the acquisition of knowledge and skills so that all pupils know more, remember more and understand more.</b></p> <p>To design a curriculum with appropriate subject knowledge, skills and understanding in Number, Algebra, Ratio, Measurement, Geometry and Statistics as set out in the National Curriculum so that children can know more, remember more and understand more to help them reach and exceed their potential at Fitzwilliam Primary School and beyond.</p>	<p><b>National Curriculum</b>            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><b>National Numeracy for Everyone- KPMG. 2008. The Long Term Costs of Numeracy Difficulties. Every Child A Chance.</b></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><b>National Curriculum Programmes of Study and Scheme of Work</b></p> <ul style="list-style-type: none"> <li>• Mathematics is planned for, following the EYFS Framework and KS1 and KS2 school curriculum.</li> <li>• Mathematics is planned for following the scheme of work, as suggested by Maths Hub.</li> <li>• 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.</li> <li>• 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.</li> </ul>	<p>Children will make at least good progress in Mathematics from their last point of statutory assessment of from their starting point in Nursery.</p> <p>Children will use their Mathematics knowledge and skills, in all curriculum areas, to enable them to know more, remember more and understand more.</p> <p>Children will recognise the importance of Mathematics as a facilitating subject to enable them to access other areas of learning and operate successfully in everyday life both now and in the future.</p>

<p><b>Intention 2:</b> <b>To build a curriculum, which enables</b> pupils to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competency in solving increasingly sophisticated problems so that they <b>know more, remember more and understand more.</b> To design a curriculum which has mathematics at its core, is accessible to all and will maximise the development of every child's ability and academic achievement. We deliver lessons that are creative and engaging. We intend for our pupils to be able to apply their mathematical knowledge to science and other subjects. We want children to realise that mathematics has been developed over centuries, providing the solution to some of history's most intriguing problems. We want them to know that it is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. As our pupils progress, we intend for our pupils to be able to understand the world, have the ability to reason mathematically, have an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.</p>	<p>Numeracy and literacy difficulties however often co-occur - the combined cost is approximately £2.4 billion. Inversely, providing effective numeracy interventions at age 7 and reducing the number of pupils who currently leave primary school with very low numeracy, could produce an annual saving to the public purse of £1.6 billion.</p> <p><b>OECD research indicates that</b> across all the variables they measure "good numeracy is the best protection against unemployment, low wages and poor health"</p> <p><b>National Numeracy for Everyone</b> research indicates that maths and numeracy provide a route map to instilling a well-founded sense of self-belief.</p> <p><b>School</b> baseline upon entry data indicates that a significant number of children enter Lower Foundation Stage with Mathematics skills that are below chronological expectations but the majority leave school in Year 6 reaching national expectations.</p>	<ul style="list-style-type: none"> <li>• The systematic teaching of number and place value has a high priority throughout school.</li> <li>• In Foundation Stage, pupil fluency is developed by using a visual, practical base to develop conceptual understanding and recall. Pupil's mathematical reasoning is developed through the use of concrete objects and spoken language to explain and justify.</li> <li>• School has developed a comprehensive Calculation Policy, which enables staff to teach standard methods systematically and progressively across all age groups.</li> <li>• <b>Maths Hub</b> is used as the spine for delivery of the Mathematics across school. Maths Hub ensures consistent coverage, and provides real life opportunities for pupils to make connections and apply their mathematical knowledge.</li> <li>• Daily <b>Target Maths</b> lessons provide opportunity for children to become fluent in the fundamentals of mathematics, thus increasing the likelihood of rapid progress.</li> <li>• Weekly <b>Problem Solving</b> sessions enable varied and frequent practice of mathematical application through increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.</li> <li>• The systematic teaching of <b>Timetables</b> ensures that children develop rapid recall which they can use as a tool to effectively and efficiently solve more complex problems.</li> <li>• Time limited <b>Intervention</b> is planned for those children who are working below their expected level of attainment and progress.</li> <li>• All children are expected to complete weekly mathematics <b>homework</b>. The mathematics homework focuses upon the four standard methods of addition, subtraction, multiplication and division so that children retain through regular practice the key operations required for them to successfully solve problems that are more complex.</li> <li>• All children have access to <b>Abacus Maths</b>, which is a web-based ability appropriate Mathematics programme, which they can access at home, and school.</li> <li>• All children from Year 2 upwards have access to <b>Timetables Rockstars</b>, which is a web-based ability appropriate timetables programme, which children access at home, and school.</li> </ul>	<p>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.</p> <p>They will recognise that Mathematics is essential for everyday life and make at least good progress in Mathematics from their last point of statutory assessment of from their starting point in Nursery.</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><b>Intention 3:</b> <b>To provide opportunities across all curricular areas for the development and application of Mathematic skills to help all</b></p>		<ul style="list-style-type: none"> <li>• The promotion of mathematics is essential to the successful acquisition of knowledge across the curriculum.</li> <li>• The promotion of opportunities to use and apply mathematical knowledge throughout school is planned in a variety of subjects set in real life contexts.</li> </ul>	<p>Children will be able to produce written work in all areas of the curriculum of a similar standard which evidence good progress from their last point of statutory</p>



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<p><b>pupils know more, remember more and understand more.</b> To design a wider curriculum that provides regular opportunities for pupils to use and apply the knowledge skills they have acquired from the Mathematics Curriculum.</p>		<ul style="list-style-type: none"><li>• The promotion and implementation of outdoor learning and external cultural capital experiences provides additional opportunities for children to apply mathematical knowledge in real life situations.</li></ul>	assessment point or their starting point in Nursery
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