



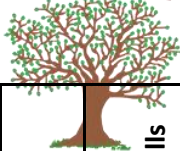
Mathematics – Intent, Implementation, Impact

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Intent	<p>At Tweeddale we aim to deliver a curriculum that develops the skills children need to become responsible learners who show ambition to achieve while being engaged, independent, confident and fluent mathematicians. We want to create perseverant and reflective learners whose skills not only support them in maths but also help across the whole curriculum and in later life. In addition to this, our aims align with that of the national curriculum, which are to develop learners who: are fluent in the fundamentals of maths; are able to reason mathematically and are able to apply their maths to a range of problem-solving scenarios. Most importantly we provide inclusive lessons to support children to feel inspired and achieve.</p>		
Implementation	What	KS1	KS2
		<p>Children in KS1 at Tweeddale will be immersed in lessons which 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>Children will be given the opportunity to develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching is inclusive so will involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. By the end of the key stage, children should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Children should be able to read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.</p>	<p><u>LKS2</u> Children in LKS2 at Tweeddale will be immersed in lessons which support them become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. Children will develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.</p> <p>Children will be given the opportunity to develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that children draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number. Children should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.</p> <p><u>UKS2</u> Children in UKS2 at Tweeddale will be exposed to lessons which support them extend their understanding of the number system and place value to include larger integers. This should develop the</p>



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		<p>connections that children make between multiplication and division with fractions, decimals, percentages and ratio.</p> <p>Children will be given the chance to develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, children are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that children classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them. By the end of year 6, children should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages. Children should read, spell and pronounce mathematical vocabulary correctly.</p>
How	<p><u>Foundation Stage</u> In Foundation Stage, mathematics is taught each day through investigative play, whole class sessions, small group and individual work. Activities include counting, sorting, matching, seeking patterns, making connections, recognising relationships and working with numbers, shapes, space and measures. Mathematical understanding is developed through stories, songs, games and imaginative play, so that children enjoy using and experimenting with numbers.</p> <p><u>Key Stage 1 and 2</u> In Key Stages 1 and 2, mathematics is taught through a dedicated daily mathematics lesson. Lessons will typically (but not exclusively) contain three main parts: 1. Oral and mental calculations (often including practising number facts) 2. The main teaching activity (which usually includes an opportunity for children to practise their learning) 3. A plenary to conclude the lesson and bring the learning forward. In both Key Stage 1 and Key Stage 2, lessons last approximately 60 minutes. One of the 5 lessons is used to focus on arithmetic and times tables. Reasoning and problem-solving are embedded within each lesson and not be seen as something separate or taught in isolation. Children are tested weekly on their times tables following a progressive program. Weekly scores/times are recorded to track progress. These are ongoing and move up with the children on a yearly basis.</p>	



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<p>Key Knowledge/Skills</p>	<p>Become fluent in the fundamentals of mathematics, including the four operations and place value.</p>	<p>Learn the properties of shapes, units of measure, data handling and geometry as appropriate to age.</p>	<p>Learn tables up to 12 x 12 by Y6</p>	<p>Become fluent in arithmetic, both written and mental</p>	<p>Can solve problems by applying their mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.</p>
<p>Assessment</p>	<p>Three termly data drops based on PiXL assessments</p>	<p>Live marking and prompt verbal feedback in line with assessment policy</p>	<p>Moderation across year groups</p>	<p>Ongoing teacher assessment against age-appropriate checklists</p>	<p>Statutory assessment points: KS1 (Y2), KS2 (Y6) and the Y4 multiplication check</p>
<p>Impact</p>	<ul style="list-style-type: none"> • Most children reach end of year expectations. • Children are reasoning with increased confidence and accuracy. • Children understand the relevance and importance of what they are learning in relation to real world concepts, and that maths is a vital life skill that they will rely on in many areas of their daily life. • Children have a positive view of maths due to learning in an environment where maths is promoted as being an exciting and enjoyable subject in which they can investigate and ask questions; 				