

Mathematics: At Dunalley, we place great importance on children developing a secure and deep understanding of maths. We strive to create a learning culture where all children believe they can achieve through hard work and determination. Through the use of practical resources, visual representations and quality talk we aim to develop children’s conceptual understanding as a ‘mastery’ approach. Our intention is to nourish children’s mathematical thinking and curiosity so that they can confidently and flexibly, reason and solve problems. Our children understand that learning from their mistakes and explaining misconceptions is an essential part of retaining information in their long-term memory. The way our curriculum is sequenced and implemented ensures that our learners view maths as an interconnected subject.

INTENT	IMPLEMENTATION	IMPACT						
<p>At Dunalley, we intend to provide a Mathematics curriculum that is ambitious for all children, accessible and carefully sequenced to ensure all children are successful. Our medium-term plans support teaching by providing a coherent learning journey through the key stages, focusing on small steps as key learning points. We intend for our lessons to be supportive and engaging so that our learners can solve problems in the real world.</p> <p>We aim for all pupils to:</p> <ul style="list-style-type: none"> • Become fluent in the fundamentals of mathematics (see Year by Year Curriculum Maps) so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. • Solve problems by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios. • Reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language. • Have an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately. 	<p>Teachers use ‘CanDoMaths’ as a planning aid to ensure effective consolidation of previously taught material and to help foster a ‘can do’ attitude towards maths. Formative assessment assesses children’s understanding daily so that early intervention ensures all children make progress. Our lessons are divided between a 45-minute Maths lesson which introduce new learning and a 30-minute Maths On Track Meeting (MOT).</p> <table border="1" data-bbox="1062 772 1893 936"> <tr> <td colspan="2" data-bbox="1062 772 1561 856"> Mathematics Lessons: Teach Up M/T/W/T/F: (09:15 – 10:00) </td> <td data-bbox="1561 772 1893 856"> Maths On Track Meetings: Keep Up M/T/W/T/F (11:30 – 12:00) </td> </tr> <tr> <td data-bbox="1062 856 1347 936">‘Learning Together’</td> <td data-bbox="1347 856 1561 936">‘Support & Challenge’</td> <td data-bbox="1561 856 1893 936"> Deliberate Practice Sessions Arithmetic/Intervention/Practice </td> </tr> </table> <p>Mathematics Lessons</p> <p>Each lesson focuses on a manageable step of new learning based on the NC statements.</p> <p>Typical Lesson design:</p> <ol style="list-style-type: none"> 1) Hook It: Introduction 2) Teach It: Live modelling of the new learning with explicit use of potential misunderstandings 3) Practise It: All children practise together Support & Challenge 4) Do It: Up to 5 examples – 5 ‘What it is’ or ‘3+2 ‘What it is/What it’s also’ Challenge 1: Procedural Fluency 5) Secure It: 1 or 2 Misunderstandings (True/false, Spot the mistake) Challenge 2: Conceptual Understanding 6) Deepen It: Apply understanding to solve new problems Challenge 3: Mathematical Thinking 7) Review It: Lesson Recap: Key Concept Statement and Key Vocabulary <p>MathsOnTrack (MOT) Meetings</p> <p>Day 1 : Arithmetic</p> <p>Day 2 : Arithmetic</p> <p>Day 3 : Deliberate Practice: Past and Present</p>	Mathematics Lessons: Teach Up M/T/W/T/F: (09:15 – 10:00)		Maths On Track Meetings: Keep Up M/T/W/T/F (11:30 – 12:00)	‘Learning Together’	‘Support & Challenge’	Deliberate Practice Sessions Arithmetic/Intervention/Practice	<p>Assessment</p> <ul style="list-style-type: none"> • The MTPs and schemes of work for each unit of maths highlight both national curriculum objectives (rhombus document) and the small steps to achieve these goals (termly plans) • Children’s complete ‘Remember it’ assessments as a formative assessment tool at the end of each half term. • NFER assessments take place each term giving a standardised score to compare against the national picture. <p>Books</p> <ul style="list-style-type: none"> • Pupils learning in books will demonstrate that they have made progress to the end points of the unit and will demonstrate that they have engaged with sources, used subject specialist vocabulary and acquired knowledge <p>Pupil voice</p> <p>Children will be able to articulate their learning in maths</p> <ul style="list-style-type: none"> • Discussing their learning using mathematical vocabulary • Be able to recall number facts and how teachers support this • Discuss the learning journey within a lesson <p>Monitoring</p> <p>The subject leader monitors the subject through:</p> <ul style="list-style-type: none"> • ensuring coverage of the units of work • reviewing books • pupil conferencing to ensure that pupils are able to articulate their learning • lesson observations / learning walks • support to teachers in developing subject knowledge • subject review by link Governor
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	<p>Day 4: Deliberate Practice: Past and Present</p> <p>Day 5: Fact Friday</p> <p>To help develop factual fluency both at home and in our MOT Meetings we use TTRS and Numbots. Our Mastering of Number programme helps to develop a strong number sense so that the children have strong foundations to build mathematical understanding. To support the regular recall of previously taught material, teachers have access to 'Retrieve its' WRM and Fluent in 5.</p>	
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