



'Learning at the head and heart of all we do'

Intent and Implementation for Maths - Rebecca Franczak

<p>Our Curriculum Intent at The Croft:</p>	<p>To enable our children to develop their skills in Maths, we follow a mastery approach to Maths is mapped out from EYFS through to Y6. Our approach to teaching Maths ensures the teaching and learning is progressive in skills, knowledge and understanding in year group and across the school. We have daily teacher led Maths lessons as well as daily fluency sessions to rehearse and practise key skills. Where appropriate, we use 'catch up' or pre-teach session to ensure all children have further opportunities to meet outcomes (supported and independently).</p>
<p>Curriculum Implementation:</p>	<p>Each day pupils will have two Maths sessions each with a different purpose. Every morning, each class will have a main lesson, lasting 40 – 45 minutes, which comprises of 3 parts (Do It, Secure It and Deepen It) to allow pupils to develop a secure and deep understanding of the manageable key concept that the lesson is focusing on.</p> <p>In addition to this, there is a daily fluency session, lasting for 20 minutes, to give pupils the opportunity to revisit previously learned knowledge, concepts and procedures. This is to ensure that knowledge becomes deeply embedded and consequently allows rapid and accurate recall.</p>
<p>Planning:</p>	<p>To guarantee progression across the school, Can Do Maths road maps are used to support long term planning of both main Maths lessons and the fluency lessons. In KS1 the Mastering Number Programme from NCETM is implemented alongside the Can Do objectives for fluency.</p> <p>Can Do Maths is followed as a coverage overview and Key Learning Points for individual lessons to ensure whole school progression. Any changes or adaptations (for example during curriculum prioritisation after school closures) are recorded on the Maths Coverage Trackers. From these objectives taken from the Can Do overview, teachers plan a 3 part lesson to ensure that children have the opportunity for rehearsal of the new learning as well as the opportunity to reason mathematically and solve problems in a range of different contexts. Teachers are also supported to use the NCETM RTP exemplification resources and White Rose subscription to ensure that planning is varied and meets the needs of all pupils.</p> <p>The Do It section of the lesson comprises of 6-10 intelligently designed questions aimed to provide pupils the opportunity to practise the key learning point from the lesson. This is also an opportunity for teachers to ensure that the new learning has been understood.</p> <p>During the Secure It section of the lesson, pupils are given the opportunity to show that they have a secure grasp of the key learning point by applying their understanding in a range of different contexts. This includes solving problems</p>

	<p>related to the key learning, identifying common misunderstandings and applying the Maths to real-life contexts. This allows pupils to embed the learning and develop a greater understanding of the key concept. For this section of the lesson, teachers plan one of two questions that most learners will be able to achieve (with support or independently) by the end of the lesson.</p> <p>Deepen It is the part of the lesson that ensures children who have rapidly grasped the new learning have an opportunity to challenge themselves and deepen their understanding of the key learning point. For this section of the lesson, teachers plan an open-ended problem that encourages children to think deeper and solve problems, including those with multiple solutions.</p> <p>In addition to the main lesson, fluency sessions are carried out daily. In these sessions no new learning takes place as it is an opportunity to rehearse previous learning; children are provided with the opportunity to develop their fluency to ensure speed and accuracy with previously taught objectives. Teachers plan these lessons following the Can Do sequence which comprises of a range of sessions with different purposes. Some sessions re-visit previously taught KPIs to ensure that fundamental concepts from previous year groups are revisited and secured (an opportunity to remember previous learning and prevent 'knowledge fade') whilst other sessions (deliberate practise) provide teachers with the time to address whole class misunderstandings or gaps without impacting on the progress and coverage in the main Maths lessons. Teachers plan for these sessions using the QLA from Maths assessments and AfL from the main lesson to ensure that opportunities are given to revisit learning that children are not yet secure with. And finally, some fluency sessions work on key number facts (number bonds and multiplication tables) to ensure cognitive load is reduced.</p> <p>Maths is taught five times per week and weekly PowerPoints are produced to support children to be able to achieve the learning objective (supported or independent) by the end of the lesson.</p> <p>Maths subject leaders meet with each year group termly to discuss the planning of Maths, with our current focus in Maths being on scaffolding for the lowest 20% and the design of the Secure It section of the lesson to ensure it meets the needs of all learners.</p>
<p>Scaffolding/supporting SEND/lowest 20%: What do we do and how does this look?</p>	<p>To ensure we provide the right opportunities for our children that are within the lowest 20% and not on track to apply the taught objectives. This is done by providing additional scaffolding and in some cases differentiating the learning objective.</p> <p>Additional Scaffolding Strategies</p> <p>In order to ensure that all children are keeping up, children's learning is sometimes scaffolded using additional resources (sentence stems, 5 and 10 frames, number lines, hundreds squares, etc.). These strategies will be evidenced in books using the stick man and a ratio with the resource used, as shown in our marking policy.</p>

	<p>Differentiating the Learning Objective</p> <p>Using teacher judgement, our teachers may, where appropriate, differentiate the learning objective so that some of our lowest 20% and those children SEND (particularly those with an EHCP). Where applicable, teachers will still follow the same unit of Maths (following the road map) but will take appropriate learning objectives from previous year groups. QLA from assessments and results from the SEN Maths assessments can be used to support these judgements.</p>
<p>Challenging Learners- How do we ensure all children make progress?</p>	<p>To guarantee all children are challenged appropriately in Maths, teachers ensure that challenge is provided through the 3 steps of the lesson. QLA from previous assessments and AfL during the lessons should inform future planning to ensure that Secure It and Deepen It parts of the lessons are correctly pitched to enable all learners to make progress and reach their full potential.</p> <p>Our lesson design ensures that our rapid graspers and previously high attainers are challenged through depth of understanding rather than breadth; learner are not 'accelerated' to experience learning objectives from older year groups.</p>
<p>Assessment:</p>	<p>Teachers carry out AfL during all Maths lessons and mark all lessons in line with our marking policy. In addition to teacher assessment, termly assessments are completed in order to support teachers with their judgements.</p> <p>In line with data points across the year, teachers submit their Maths assessment data. Key children, who are representative of the whole class and include key groups (lowest 20%, EAL, SEN, gender and Pupil Premium), are tracked for their progress across the year. Teachers identify whether the children are secure in the non-negotiables (KPIs) and taught objectives for their year group, and this is updated on a spreadsheet which includes the yearly objectives.</p> <p>End of Key Stage assessments for Maths are carried out in Year 2 and Year 6.</p>
<p>Monitoring:</p>	<p>The Maths Team meet each year group termly to discuss the planning Maths. There is a particular focus on supporting the bottom 20%, but there are additional priorities for specific year groups as shown and evidenced on the Maths Action Plan.</p> <p>Regular lesson observations and book scrutinies are completed. Please refer to the Maths Action Plan for the dates and next steps from these.</p>
<p>Classroom Environment:</p>	<p>Each classroom has a Maths working wall which, In line with our maths expectations document, is updated daily with modelled examples of the learning in order to support the children's understanding of the learning objective. In addition to the modelled work, working walls should also include:</p> <ul style="list-style-type: none"> • Sentence stems for the Key Stage (available on the staff drive) • The road map for the year and unit to show the sequence of the learning. • Visual representation to help children to understand the small, coherent steps in the learning. <p>Maths stuck zones in each classroom should have the following resources available to support our learners:</p> <ul style="list-style-type: none"> • EYFS (maths area) • Dice

	<ul style="list-style-type: none"> • Numicon • Counters • Multi-link cubes • Objects/ sets for counting • Number cards • Bead strings • 5 frames, 10 frames, 20 frames (as appropriate) <p>KS1</p> <ul style="list-style-type: none"> • Number lines • 10 frames, 20 frames • Counters • Bead strings • Numicon • Place value grids • 100 squares • Number formation/ digit flashcards <p>KS2</p> <ul style="list-style-type: none"> • 100 square • Number line • Denes/ place value resources • Counters • Multiplication tables • Place value grid <p>In order to ensure that they are purposeful and meet the needs of the curriculum in each year group, the expectations for a classroom displayed number line have been updated as follows:</p> <ul style="list-style-type: none"> • EYFS Number line 0-20 when appropriate • Years 1-3 Number line 0-50 • Year 4 -20 to 20 • Years 5 and 6 no numberline display (please take down any currently displayed) but suitable resources to be provided in the stuck zone to support learners who still require this. When teaching units that would be supported by the use of a number line (e.g. fractions/ decimals) please display a suitable number line as part of the working wall when teaching these concepts.
<p>Interventions to Support Learning:</p>	<ul style="list-style-type: none"> • Same day intervention to ensure learning are keeping up • Mastering number interventions (repeated sessions 1:1 or in a small for the lowest 20% or learners who are not on track and small group sessions for KS2) • Number formation boosters
<p>Maths in Early Years:</p>	<p>In the Foundation Stage, maths is taught through a carefully sequenced combination of whole class input and small group adult-led activities alongside continuous provision to ensure that our youngest learners are developing a secure sense of number. The maths area in the classroom provides the children with the chance to explore their own learning with appropriate resources that they will have experienced during the whole class and small group sessions.</p>