# Cambois Primary School logo (2) - Copy[1]Cambois Primary Intent, Implementation and Impact

Intent :

At Cambois Primary we have adopted a mastery approach for the teaching of mathematics. Underpinning this pedagogy is the belief that all children can achieve in maths. We believe in promoting sustained and deepened understanding by employing the 5 big ideas of mastery strategies, with teaching for conceptual understanding at the heart of everything we do. We aim to create independent mathematicians who are well equipped to apply their learning to the wider world. As a school we began this journey to develop staff the capacity to embrace and fully engage in mastery methods of teaching mathematics by working with the ‘Great North Hub’ as part of a ’Sustaining Mastery Programme’ to develop a mastery curriculum in order to improve teaching and learning and outcomes for pupils. We have previously completed a Teaching Research Group in developing mastery. We use small steps from the White Rose Maths Hub to support our direction of teaching.

Implementation:

Across the school pupils are taught in mixed ability classes of two year groups (N/R, Y1/2, Y3/4 and Y5/6). We also begin our children’s journey in our 2 year old provision – Turtle Tots.

We are extremely proud of our Student Support Base. The SSB follows the Equals curriculum and the children pathway determines how we teach maths. We have two classes. Class one are children on the pre-formal/informal path way. Class two are children who are on the informal pathway branching into the semi formal and children who are accessing the semi-formal pathway (please visit the SSB page for more in-depth explanations of the pathways).  Maths in class one is taught through play and continuous provision. These children are still figuring out the world around them and learning there are objects and people in the world. This children see maths as choice making, matching, problem solving such as how to get the shape into the shape sorter and spatial awareness and song time.

Maths in SSB class two looks very different, although we don’t follow the national curriculum we have children who can access elements of early maths. With these children we have set maths time, during this time a child works one to one, slowly building up to working in a small group to work on mathematical concepts such as number in a practical way. Children then have the chance to practice their learning individually within areas of the classroom. We also do a lot of maths in our cross curricula lessons such as DT and Cooking, we have set number time songs and we encourage children to use their skills even in play and setting up. For example when we are getting ready to cook we ask the children to hand out a certain number of plates. In the morning we count how many children are in school etc.

In the Early Years and Foundation Stage (EYFS), we ensure that each unique child develops a firm mathematical foundation in a way that is engaging, and appropriate for not only their age but stage in development. We ensure that play underpins the delivery of all learning experiences as it is our belief that children learn best through practical, hands-on experiences and interactions with their environment. Here at Cambois Primary, we ensure our learning environment enables children to engage in child-initiated play which is actively supported by adults both inside and outside of the classroom. Mathematical learning opportunities are purposely planned in all of our areas and teaching staff use their expertise in questioning and engagement with pupils to enhance their mathematical knowledge. Tight daily routines are essential for our children at Cambois Primary School, so opportunities to discuss timetables, times of the day, days of the week and the date are used every day. In addition to this, opportunities for focussed learning sessions in Mathematics are planned daily in-line with guidance from the NCETM Mastering Number and White Rose. Such planned activities provide children with the opportunity to consolidate their understanding and extend mathematical concepts. The characteristics of effective learning link closely with many elements of the Mastery Curriculum, which children follow when entering the next stage of their learning here at Cambois Primary.

In Key Stage 1 and 2, children build on the firm foundations gained in the EYFS and further embrace Mathematics via a mastery curriculum. Children in KS1 continue to engage in Mastering Number and progress through the small steps of the White Rose guidance which allows for a seamless transition from EYFS and then again from KS1 into KS2.

Mixed ability classes are intended to remove the ceilings of expectation and encourage engagement in active dialogue and promoting deep conceptual mathematical understanding. To consolidate key mathematical concepts, some pupils may have extra interventions on top of their usual hour maths lesson. We want children to make rich connections across mathematical ideas to develop fluency and promote reasoning and curiosity in maths.

In KS2 we also have a provision for SEND children – The Explorers. In this class we focus on stage and not age. The maths we study is linked very closely to real life skills that the children will need to apply. We also ensure that the lessons are short and snappy with short bursts of activities to ensure the children reach their true potential and their learning needs are adhered to. We ensure that concrete and pictorial approaches are at the heart of this class curriculum.

Lesson Structure: Although Mastery is at the heart of our curriculum, lessons will be appropriately differentiated where needed, containing elements of challenge and enrichment for all abilities. Mostly children will all access the same learning objective where possible and will be challenged to show greater depth, however for some children we will ensure we challenge them to achieve at their stage in development. Mathematics Mastery places emphasis on the cumulative mastery of essential knowledge and skills in mathematics. It embeds a deeper understanding of maths by utilising a concrete, pictorial, abstract approach so that pupils understand what they are doing rather than just learning to repeat routines without grasping what is happening.

A range of manipulatives are used across the school to help pupils secure key concepts and to become fluent in methods of calculation. All children will be encouraged to discuss their work in detail in order to consolidate their reasoning skills and develop a deep sense of understanding. All children from Nursery to Y6 will have free access and be encouraged to use different representations to show a true understanding of a concept. Where possible and definitely within UKS2, Children select own entry point to challenge themselves but know they can try one point of entry and re-select if necessary. Each challenge is linked to the others - not just different tasks.

 Interventions

 Number stacks - all classes have a set of resources. Teachers identify those children in need and they work with TA working within their class.

Mastering Number 4 x each week in Reception, Y1&2, KS2

 Timestable Rockstars from y2-6 to consolidate tables facts

Impact:

Our curriculum ensures children are stimulated and challenged to fulfil their learning potential. We are confident that the Mastery Curriculum used across the school prepares our children for a life long love of mathematics. The children always enjoy mathematics and are proud of their own achievements. We are committed to our journey into maths mastery and sustaining mastery within our maths curriculum.