

## **MATHS AT CORPUS CHRISTI**



We understand that Maths is an integral part of everyday life and, with this in mind the overall intent of our Maths Curriculum at Corpus Christi Catholic Primary is to develop an ability to solve problems, to reason, to think logically and to work systematically and accurately. We aim to give the children the confidence, perseverance and skills that they may lack when they come into our school, to be able to acquire sufficient knowledge and vocabulary to serve them well as they move into the next stage of their education. We believe that a high-quality mathematical education provides a foundation for understanding the world and a sense of enjoyment and curiosity about the subject. We are determined that every pupil will demonstrate the mathematical knowledge, concepts and procedures appropriate for their age and demonstrate good levels of progress from their individual starting points. We want all children at Corpus Christi to develop into confident and competent mathematical thinkers, who are able to use maths in real life situations.

### **INTENT:**

Our intention is that all our children are challenged and encouraged to excel in maths. We aim to inspire children with our exciting Maths curriculum so that they enjoy the subject. We also aim to develop progress through the subject by supporting children to steadily acquire skills and knowledge. We do this by ensuring that Fluency, Reasoning and Problem Solving are given time to develop in each unit, and that all pupils are exposed to them appropriately to ensure progression. Through careful nurturing we enable all learners to become confident and competent mathematicians who are able to recall and apply knowledge rapidly and accurately. We ensure that new mathematical concepts are introduced using a 'concrete, pictorial and abstract' approach enabling all children to experience hands-on learning when discovering new mathematical topics, which allows them to have clear models and images to aid their understanding. Arithmetic and basic Maths skills are practiced daily to ensure key mathematical concepts are embedded and children can recall this information to build links between prior knowledge and understanding. We also engage children by highlighting how Maths influences their daily lives at home and in school. We reward hard work and effort ensuring that everyone makes progress.

### **IMPLEMENTATION:**

At Corpus Christi we teach using the 'mastery approach' in which all pupils are encouraged by the belief that by working hard in maths they can succeed. Mastery in our school means that learning is fluent, deep and embedded so that it can be built upon and connected. Our curriculum is structured using Whiterose Maths as our spine to ensure appropriate coverage in accordance with the National Curriculum. We recognise that a whole-school systematic approach to delivering quality maths is vital to our success and the success of our children. This model follows a spiral approach and the curriculum is mapped out to ensure that learning is sequenced and coherent, using small steps to break down each topic into key elements, which allow for deep learning and mastery of mathematical concepts. These blocks are interleaved, which means that key ideas, concepts and knowledge are revisited within and across years and revision blocks are carefully planned out half termly to ensure children have opportunities to review key concepts. Whiterose Maths, used alongside the NCETM ready to progress documents provides teachers with a clear sequence in which children have both opportunities to consolidate and build on prior learning. We seek to maintain and continually improve a rich, broad and balanced curriculum giving opportunities to use Maths across

the curriculum where appropriate. Teachers are encouraged to look for opportunities to consolidate this learning from Mathematics lessons in other curriculum subjects. Our teaching staff combine their strong subject knowledge with positivity and high expectations of our children to ensure that all children value their maths education.

At Corpus Christi children receive input from their teacher to match their needs. All classes begin the day with a Maths morning starter, usually based around fluency, which aims to reinforce and embed previous learning. This is targeted learning that can be used to reinforce and recap both declarative knowledge (facts) and procedural knowledge (methods).

We follow a lesson design of vocabulary input, teacher input, fluency activities followed by discussions to direct learning. Teaching in maths is 'chunked' into smaller steps and allows for opportunities for teachers to model good practice (I do-teacher), to practice together (we do) and to have a go themselves (you do). Children are also given the opportunity to apply their learning through problem solving and reasoning. A range of reasoning resources are used to challenge all children and give them the opportunity to reason their understanding. Children are given time in lessons to use Maths Talk and discuss through 'Maths Buddies' in order to aid understanding and develop accurate use of the vocabulary. We focus on the use of vocabulary as this is fundamental for some of our children who are EAL and also allows children to deepen their understanding of mathematical concepts.

In addition, from Years 4-6 we use a 'team teaching' approach when teaching Maths. This aims to support whole class lessons and targeted support within class to ensure progress is made. In lessons this means live feedback and intervention can take place and misconceptions can be addressed in the lesson. This also enables the class teachers to pin point targeted differentiated small group interventions and 1-1 tuition. Our teaching is both proactive and reactive: we plan for the mastery of each small step but also act on what we see to ensure that appropriate support is in place to help all children to succeed.

In Key stage 1 lessons use a concrete, pictorial and abstract approach to guide children through their understanding of mathematical processes. Where applicable, a range of manipulatives such as Numicon, placed value counters and Cuisenaire Rods are used to support children to secure key concepts and to become fluent in methods of calculation. Children are encouraged to calculate rather than count. For Example  $5 + 7 = 5 + 5 = 10 + 2 = 12$ . These different representations are used in worked examples and guided practice to provide strong models for children to base their understanding upon.

In Early Years we also use White Rose Maths as the spine of our curriculum this ensures the curriculum is progressive and develops pupil's maths knowledge and skills. Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Practical resources are core to our teaching in early years. Numicon, tens frames and number beads are examples of our core resources used to consolidate learning in adult led activities and play. We also have daily adult led maths lessons and opportunities to consolidate learning through routines, songs and rhymes. By providing frequent and varied opportunities to build and apply this understanding children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built.

Our curriculum at Corpus Christi is inclusive. Teachers adapt teaching to meet the individual needs of children with SEND as outlined in their individual support plan or EHCP. Adaptations may include modified tasks, the effective use of resources or appropriate deployment of support staff/teacher

time. Where necessary and appropriate, teachers may refer to small steps from previous year groups to meet individual learner's needs.

At Corpus Christi we use a variety of online resources within school, which are also available for pupils to access at home such as Times Table Rock stars. Homework is also set via online platforms and aims to develop and review children's learning.

Assessment forms a key role in our curriculum. As well as ongoing, daily formative assessment that takes place as part of quality-first teaching, pupils complete a number of different summative assessments over the year. We assess children formally three times a year using Testbase materials splitting this up into arithmetic and reasoning and problem solving.. Pupils also complete pre and post topic quizzes at the beginning and end of each unit. The aim of the pre-topic quiz is to inform planning for the upcoming unit and to allow teachers to plan for misconceptions, whereas the post topic quiz allows us to identify any remaining gaps in learning. Any gaps identified, whether whole class or targeted groups, will be planned for and revisited either through whole class teacher, tutoring sessions, small group intervention or incorporated into 'Flashback 4'. We also use revise and review consolidation lessons half termly to revisit previous learning and ensure Maths skills are embedded.

### **IMPACT**

As a result of our high- quality Maths teaching at Corpus Christi you will see engaged children who are all challenged through a carefully planned out curriculum to deepen their mathematical understanding. Confident children who can talk about their learning in maths and make connections between mathematical concepts. In lessons you will see a variety of resources used to support learning and different representations of mathematical concepts. As well as learning that is tracked and monitored to ensure all children make good progress.