Intent:

Here at St Ethelbert's Catholic Primary School, we value MATHEMATICS!!

Our School mission statement of **'High expectations for all in the light of Christ'** is integral to our curriculum, which caters for the needs of all individuals and sets them up with the necessary skills and knowledge for them to become successful in their future adventures. Our intention is to equip children with the skills to become confident, competent and fluent mathematicians and enable children to reason critically and problem solve confidently. We want our children to understand that Maths is essential to everyday life: critical to science, technology and engineering, and a necessary life skill. We want our children to grow up with a deep understanding of mathematics.

We incorporate sustained levels of challenge through varied and high-quality activities with a focus on the following:

- Fluency in the fundamentals of mathematics so that pupils develop conceptual understanding, and the ability to recall and apply knowledge rapidly and accurately.
- Reasoning mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- Problem Solving by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Implementation:

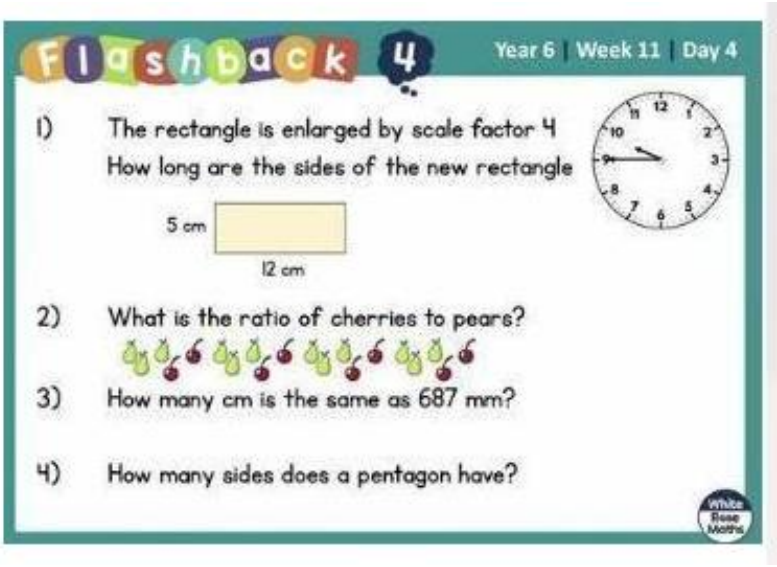
Our Nursery Class follows the EYFS Curriculum and every class from Reception to Year 6 follow The White Rose programme: a programme to meet the criteria for high-quality teaching of mastery in England. We have partnered with the Kent and Medway Maths Hub to improve our delivery of maths mastery for our children. This is complimented with other resources such NCTEM's Mastering Number and TT Rock Stars.

In both Nursery and Reception children take part in adult directed and child-initiated mathematics. It is important children are given the opportunity to learn maths through practical, active, hands-on experiences. We implement this approach into our focused lessons and our continuous provision areas. After learning new concepts, children are given opportunities inside and outside the classroom to apply their understanding through challenges and enhancements to best support our children to internalise and master their learning.

Following the units set out by White Rose, children are given the opportunity to work in small steps, building upon their prior knowledge and creating a concrete understanding of the learning taking place. Each session is designed to develop questions designed to unpick the structure of the maths and deepen the children's understanding. When children talk about maths concepts, they develop the vital mathematical language that helps them explain their ideas and **'Dive Deeper'** into their understanding.

All children are encouraged to believe in their ability to master maths and are empowered to succeed through curiosity and persistence, while tackling the same concepts at the same time and progressing together as a whole class. The 'small step approach' allows children to *keep up* not *catch up.*

For example: every day we start our Maths lessons with retrieving previous knowledge and skills e.g. a 'Flashback 4' task for each year group. This is a series of quick questions covering something from the previous lesson, last week and then topics from earlier in the year – maybe even last year! This encourages children to constantly refer back to their previously learnt knowledge and skills, ensuring multiple opportunities to look at topics again in new contexts. This enables teachers to support students who have struggled with a topic to spend more time reconsidering and developing their understanding, as well as identifying any 'problem' areas.



Also, within each unit that is covered, the 'concrete - pictorial - abstract' approach to mastery maths is used.

Each class uses manipulatives to start their focus unit. The use of manipulatives allows children to have a tangible link to their learning.

The use of pictorial representations enables children to understand how the focus maths skills can be represented in a number of different ways - mastering the small steps to learning and ensuring the learning is not just 'discrete'.

From this process, children are then able to approach the maths in a more abstract, problem-solving way by using their previous knowledge and skills. Enabling them to apply the small steps to understanding and solving the problem.

Impact

Pupil Voice:

Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they love learning about maths. They can articulate the context in which maths is being taught and relate this to real life purposes. Children show confidence and believe they can learn about a new maths area and apply the knowledge and skills they already have.

Evidence in knowledge:

Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential, including jobs that require a deep understanding of maths knowledge. Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations. Children demonstrate a quick recall of facts and procedures. This includes the recollection of the times table.

Evidence in skills:

Pupils use acquired vocabulary in maths lessons, seeing a progression of this throughout the school. They have the skills to use methods independently and show resilience when tackling problems.

Children show a high level of pride in the presentation and understanding of the work. Teachers plan a range of opportunities to use maths inside and outside school in order to develop the ability to recognise relationships and make connections in maths lessons.

Outcomes:

At the end of each year we expect the children to have achieved Age Related Expectations (ARE) for their year group. Some children will have progressed further and achieved greater depth (GD). Children who have gaps in their knowledge receive appropriate support and intervention. Rapid Interventions are used in class to ensure that there is no delay in moving the learning forward for all learners.

Mastery:

All children secure long-term, deep and adaptable understanding of maths which they can apply in different contexts.