

Holy Trinity C of E Primary School

School Improvement 2021-22

Subject	Mathematics			
Staff	Miss Horsley			
Strategic Subject Intent		Intended Impact		
<p>Mathematics is essential to everyday life, with this in mind, the purpose of Mathematics at Holy Trinity is to develop fluency, the ability to solve problems and begin to reason. Skills and knowledge are revisited and applied cross-curricular, such as in Science and DT.</p> <p>We aim to provide a high-quality mathematics education with a mastery approach so that all children:</p> <ul style="list-style-type: none"> • become fluent in the fundamentals of mathematics; • reason mathematically; • can solve problems by applying their mathematics. <p>Children become fluent in the fundamentals of mathematics through frequent practice and beginning to implement varied practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.</p> <p>Children are beginning to reason mathematically by following a line of enquiry, investigating relationships and making generalisations, as well as providing a justification or proof using mathematical language.</p>		<ul style="list-style-type: none"> - Children demonstrate a deep understanding of Maths, including developing a quick recall of number facts and times tables. - Children display a positive and resilient attitude towards mathematics and an awareness of the fascination of Mathematics. - Confident children who can all talk about Maths and their learning as well as recognising links between Mathematical topics. - Children can use concrete manipulatives to reinforce mathematical concepts and have the flexibility and fluidity to move between different contexts and representations of Maths. - Children are more confident and can use different models (e.g. bar model) or procedural methods (e.g. column addition) when tackling reasoning and problem solving activities. - Children in Year 4 are prepared to undertake Statutory MTC Test in 2022. - Improved confidence and attainment of children accessing Mathematics in personalised interventions. 		
Subject Implementation		RAG		
		Autumn	Spring	Summer
To introduce Mathematics across school to close the gap between ARE children and children working below ARE using personalised learning.				
To evaluate current resources for Math and include resources which will support mastery approach.				

				resources for the mastery approach (NCETM big 5). Spring – ordered and distributed whole class sets of base 10 and PV counters for whole numbers and decimals. School bar model and part whole templates created and laminated for SEND/whole class usage. SEND also have their own pack of resources available to access in Top 10 and Maths lessons.
To update the whole school Superhero Multiplication system to correspond with Mastery Approach to Mathematics				New superheroes are in place and each child has been placed on the new system. Certificates, display resources and a superhero progression grid has been created to support staff and children in their superhero journey. Spring - Learning walks and book scrutinies show that new super hero tests are being completed. All classes have charts displayed to show progression. Reception to use new tests. Practise examples are being created as an activity for when children finish Top 10.
To create 'Maths Meetings' / 'busy pictures' document and introduce to staff as discussed with School Improvement Partner to promote discussion and reasoning around maths				Autumn – discussed this strategy with SIP Andrew. He has given me ideas and I will trial this in my class before rolling out to whole school. Spring – maths meetings has been discussed in a maths staff meeting. The purpose of maths meetings and relevant documents have been shared with staff for them to begin completing their own. Review in Summer term to see if these have been implemented and feedback. Summer term – some not implemented these yet. Staff to implement as a trial before Autumn of new academic year.
Maths Teaching for Mastery Research Group (November 2021) which includes school support visits from a mastery specialist and 6 teacher research groups. (watch maths, discuss and engage collaboratively in PD and planning tasks)				Autumn – applied for the group in September. First support session was cancelled by Stranton due to staff illness.

				<p>We are working on a new date for this to begin.</p> <p>Spring – DH attended all TRG sessions and had discussions where LB couldn’t attend so that objectives were understood. One coordinator support session has been delivered and two more are to be confirmed by Valda.</p> <p>Summer – DH attended all TRG and coordinator sessions. Implemented calculation policy, mathematical vocabulary and policy, maths meetings and policy, and continuing to develop a stem sentence document and more detailed MTP for cohesion in Maths in the next academic year to support new staff intake.</p> <p>LB unable to attend any of the meetings across the year hindering KS1 implementation of maths mastery.</p>
To create a ‘buzz’ around Maths by implementing events, such as Mathletics World Cup and Maths Week				<p>Autumn – KS2 participated in the Numberfit Mathematics world cup which was previously covered and promoted by BBC. Children loved it and classes received certificates. For National Mathematics Week I held a problem solving day in the hall for each year group so that children could work together to solve problems practically (e.g. with resources, using logical thinking etc). Staff and children thoroughly enjoyed working through different NRich roadshow resources and asked for this to be repeated next year.</p> <p>Spring – World Maths Day (whole school assembly) discussed planning an event in summer term to celebrate this as a school. Top 10 certificates being given to a year group per week.</p>
Funding & Resources	Cost (Time & Money)			Links to Academy Council

£1000 from Maths Mastery Course, to be spent on improving concrete resources for each class (e.g. manipulatives such as base 10, numicon).

Evaluation

- £500 spent on base 10 and place value counters for each class room to have a class set. These have been used positively by staff and children, allowing them to consolidate learning and improve mathematical thinking.
- Maths No problem work books provided to staff to support with varied fluency (Maths Mastery approach). These are beginning to be used by staff and have been planned for use in Summer term for Y1 and Y3 particularly, through teaching and work activities.
- Maths mastery programme has been beneficial to consolidate the NCETM big 5 ideas. These are implemented in Year 3 and developing across school. A cohesive curriculum was already established in an LTP. This year, LB is looking at sequence of Y2 to maximise knowledge acquisition before Y2 SATs and DW is looking at sequence of YR to be in line with new EYFS framework.
- I created and shared (with staff in a staff meeting) a maths vocabulary progression document from YR-Y6 to support with mathematical thinking (NCETM big 5).
- I created and shared (with staff in a staff meeting) a maths calculation policy from EYFS-Y6 to support with cohesion, fluency, variation and representation and structure (NCETM big 5).
- I created and shared (with staff in a staff meeting) a maths meetings policy from YR-Y6 to support with mathematical thinking (NCETM big 5). Examples of ppt in Year 3 is available on staff shared, staff were offered to observe maths meetings in Y3 and alternative resources were also shared and saved on staff shared.
- Stem sentence document for number is being finalised in Summer 2 to support teaching within maths
- Within the Maths Mastery programme I also made an MTP which prioritises Number and breaks objectives down further to support staff to teach objectives in cohesive steps. Links are particularly made to fluency and number and representation within the MTP document.
- The maths policy has been rewritten to be in line with the Maths Mastery Approach (NCETM big 5).