

Al-Khair Primary School

Maths Policy



Approved by:	Sajad Akram	Date: 28th September 2021
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Last reviewed on:	28th September 2021	S.Akram
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Next review due by:	17th September 2022
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Maths Policy

Intent

Mathematical skills and knowledge should be delivered, explored and revisited through conscious decision making and awareness of learning and progress needs and abilities. Children should develop resilience and self-confidence in applying their learning skills. The collaboration between peers, and the relationship between learners and their class teacher should drive the learning and inform the content, strategies and real-world contextualisation to maximise on the progress and learning opportunities.

Implementation

A 'mastery' approach has been adapted and implemented at Al-Khair for the planning, delivery and engagement with mathematics. Review and feedback following the implementation of units as repeated blocks over the academic year, with little to no interlinking and relating of skills and knowledge, was highlighted as one of the main reasons for clear gaps in knowledge and one of the possible causes for slower progression.

We have therefore used the White Rose Maths Scheme of Work to timetable mathematical units that are explored progressively, drawing on resources, data and suggestions from reliable sources such as NCETM and nrich.co.uk to link mathematical talk and knowledge across the various units (e.g. multiplication and area).

When planning for objective coverage, teachers are expected to take the following mastery strategies into account:

- Small steps
- Ping pong style of delivery
- Implementing the Concrete, Pictorial and Abstract (CPA) approach to introducing, exploring and applying mathematical concepts
- Applying/using the Bar Model approach as a strategy to approach calculation/problems
- Considering key questions and mathematical vocabulary at the point of unit planning
- Multiple opportunities for verbal and written/drawn reasoning (explaining and using mathematical vocabulary to explain methods or reasoning) within unit exploration
- Inclusion of relevant problem-solving opportunities, where children are expected to draw on and apply multiple concepts to address or approach a challenge
- Modelling of all skills and approaches
- Modelling and sharing of efficient and accurate application of methods
- Opportunities to explore maths concepts/objectives at 'greater depth'
- Include all learners, providing relevant support for those with additional needs (educational, medical or otherwise)

Units of work will be assessed upon the completion of each one, with teachers asked to use those published by WRM in the first instance, and to look to other sources (or create their own) if the pitch is too high/low. The end-of-year assessment will be completed in May (Years 2 and 6 SATs) or June (rest of the school) to provide a snapshot of individual annual progress

Teachers are expected to audit their subject knowledge of Maths; complete training for understanding and implementing the Bar Model strategy; research application of the CPA approach for the teaching concepts and consistently identify and address (with SLT or peers) areas for development by creating a route to become confident in this particular subject area

Impact

The exploration of mathematics should be interactive and engaging, with content made relevant to children's real-world experiences and contextualised thus to support consolidation and retention of knowledge and skill.

Children should approach mathematical study with confidence and enthusiasm, and view tasks and challenges that call for application of varied knowledge across units of work and the selection of multiple skills with self-assuredness and a willingness to collaborate.

Approach and response to reasoning activities should improve term on term, with the expectation that by the end of the year, children are happy to accurately define and use mathematical vocabulary introduced by their teacher, as well as complete stem sentences to complete mathematical statements or reasoning.

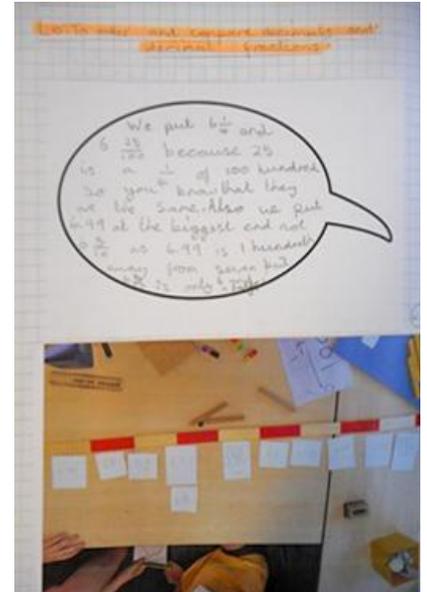
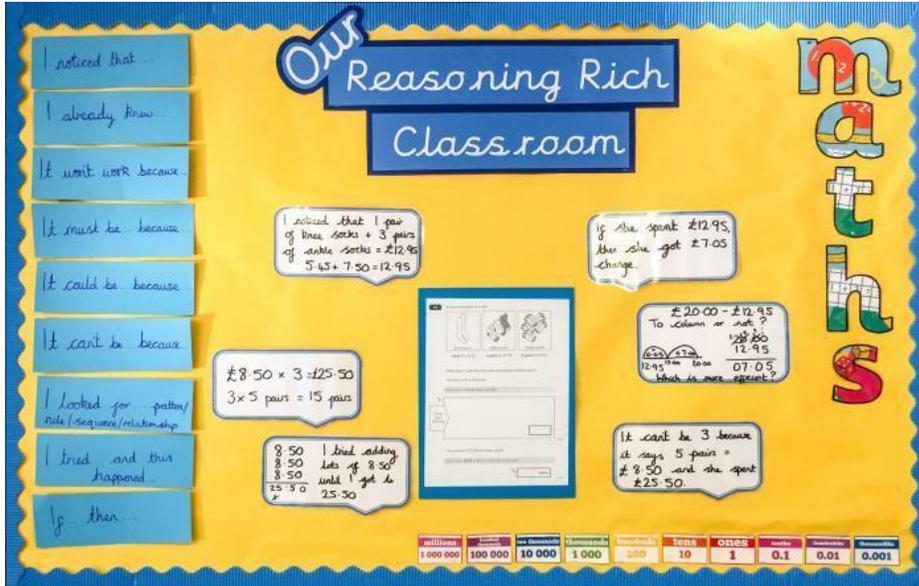
Teaching and support staff should also see this period of implementation as an opportunity to highlight and further improve concepts that are received well and have clear impact on progress and learning, while also analysing and evaluating practice that needs to be addressed, reviewed or replaced.

Review Date: September 2022

Appendix

Appendix 1 - Medium Term Planning can be found on the SharePoint under Curriculum 2019.2020, or at the following url: <https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>

Appendix 2 - examples of evidence of reasoning and problem solving using mathematical vocabulary



Appendix 3 - vocabulary bank for each maths unit for every year group:

<http://www.lindfieldprimaryacademy.org.uk/docs/Mathematical%20Vocabulary%20ePDF.pdf>. A copy is also on the SharePoint within the Maths Planning folder

Appendix 4 - Suggestions for Progress Check questions for Autumn 1 are on the SharePoint, but can also be viewed here: <https://www.russellshall.org.uk/reasoning/>

Appendix 5 – reliable sources for resources or ideas:

Nrich: https://nrich.maths.org/
Third Space Learning: https://thirdspacelearning.com/blog/
WRM PowerPoints: https://thirdspacelearning.com/blog/white-rose-maths-resources/
Mastery Professional Development: https://www.ncetm.org.uk/resources/50639?utm_source=NCETM+Newsletters&utm_campaign=35186b9d97-primary-round-up-008-september-2019&utm_medium=email&utm_term=0_13f8d631f4-35186b9d97-222882701
Challenges/reasoning tasks https://www.ncetm.org.uk/resources/41211
Assessment materials: https://www.ncetm.org.uk/resources/46689
Maths strategies: CPA: https://mathsnoproblem.com/en/mastery/concrete-pictorial-abstract/

