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Staff Responsibility:	Miss Wilson
Linked policies:	Visual Calculation Policy Teaching and Learning Policy Marking Policy Presentation Policy Homework Policy
Signed by chair:	
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Boarshaw Community Primary School **Maths Policy**

Introduction

At Boarshaw Primary we aim to provide our pupils with a mathematics curriculum which will develop individuals who are numerate, creative, independent, inquisitive, enquiring and confident. We aim to provide a stimulating environment and suitable resources so that pupils can develop their mathematical skills to their full potential.

In September 2021 we entered the second year of our journey towards implementing a mastery approach to maths. As a staff we have committed to building a new culture of deep understanding, confidence and competence in maths which will produce strong, secure learners and ensure real progress. We strive towards enabling learners to achieve excellence, no matter what their starting point is.

General Aims

We aim to ensure that all children are provided with a challenging curriculum that is fully inclusive, which:

- Focuses on improving sense of number so that children can confidently approach any mathematical concept;
- Enables children to practice and hone skills and methods;
- Builds secure, resilient mathematicians who respond well to challenge;
- Provides the opportunities to apply mathematical skills in different contexts across the curriculum;
- Creates opportunities to develop problem solving concepts;
- Develops children's knowledge and understanding of key skills enabling them to become independent, reflective thinkers.
- Encourages reasoning to explain and deepen understanding of maths and creates reflective thinkers.

Teaching and Organisation

Arithmetical Proficiency

Arithmetical proficiency is an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately (NCETM). At Boarshaw Primary School we recognise the importance of this and strive to create learners who show accuracy, efficiency, flexibility and competence in arithmetic. In years 1 to 6 we teach Arithmetical Proficiency Everyday (APE) outside of the daily maths lesson. In Years 1 to 3 we

follow the guidance and use resources from Number Sense Maths. In Reception teachers follow guidance from NCETM's Mastering Number Programme and arithmetic forms the foundations of 80% of maths lessons each week.

Display and Resources

Each classroom has a maths working wall. It should be clear what the children are currently learning about in maths and it should be changed regularly to fit in with what they are doing. This might involve moving vocabulary to somewhere more central so that it is clear for the children. The children should be a part of the process when changing the maths display.

The working wall will usually include:

1. What the children are currently learning in maths (Key Concept, WALT)
 2. Vocabulary linked to current concept (this can be added to as the concept progresses and the VCP can be used for this purpose)
 3. Operations needed (VCP can be used here too)
 4. Examples of calculations being used (VCP can be used again here).
- A hundred square should be displayed
 - Number lines appropriate to year group
 - Evidence of pupils' work when appropriate.

Each class has maths toolkits and additional resources relevant to the year group. Children should have unlimited access to these resources and they should be used regularly to support their learning.

Other resources are stored centrally and must be returned when no longer needed.

Non-negotiable Expectations

A minimum of 4 hours of Maths is taught each week

- APE (Arithmetical Proficiency Everyday) is taught for a minimum of 15 minutes each day, outside of the maths lesson
- Problem solving and reasoning activities are planned in regularly. They either form part of the whole class teaching, independent activity or plenary time tasks.
- Opportunities and activities are planned for children to show mastery of objectives.
- Higher achieving pupils should be targeted regularly and greater depth activities should be planned.
- Children should have free access to resources.
- STAR maths assessments are completed every half term.
- Children are taught and tested on their times tables frequently.

Planning

- As a school we follow White Rose Maths for our long-term planning. Long term planning will outline the areas of mathematics that will be taught during the year to ensure coverage of the National Curriculum.
- Planning for maths lessons comes from the teacher's thorough understanding of the needs of their children's which is gleaned through effective and rigorous assessment and tracking, combined with high expectations and ambition for all children to achieve.
- Within short term planning, clear success criteria for each learning objective taught should be created – demonstrating the progression needed to reach and exceed the objective. This will enable the class teacher to follow a clear and systematic teaching sequence (small steps), where input and activities

are differentiated by considering which parts of the success criteria individual children are ready for.

- Where children are working significantly above the objective the majority of the class need to work towards, children should be given opportunities to deepen their understanding through carefully planned activities involving problem solving and reasoning.
- Planning, where possible, should involve real life contexts for maths, where children are problem solving with a purpose in mind.

Assessment

- Assessment for learning should occur throughout the entire maths lesson, enabling teachers/teaching assistants to adapt their teaching/input to meet the children's needs. This feedback should be incisive and regular.
- Pupil's work should be marked in line with the Marking Policy and should give children a chance to learn from their misconceptions or incorrect methods.
- Pupils should complete corrections at an appropriate time in the school day.
- Assessment of pupil work and progress is ongoing by the class teacher and informs future planning for groups and individual pupils.
- Summative assessments take place once per half term in order to provide further understanding of the level a child is working at and to inform a more rounded judgement of their abilities. STAR Maths tests are used for formal summative assessments.
- Tracking is used in order that children who are not making good progress over time can be targeted for support in one form or another. What that support will be and how intensive, depends upon the child's needs and it may be a simple strategy within whole class teaching that is needed. Where further support is deemed necessary, children can access interventions.

Foundation stage

Teachers in Foundation Stage follow the NCETM Mastering Number Programme to deliver 4 lessons per week with an emphasis on developing arithmetic skills and understanding of number. 1 lesson per week is devoted to the teaching of shape, space and measures in line with the Development Matter Framework. Planning for shape, space and measures follows the small steps progression of White Rose Maths.

Inclusion and Equal Opportunities

All children have an equal opportunity regardless of gender, race or ability, to progress and succeed in their maths learning and understanding. We pay particular attention to ensuring there is no gender bias in materials or in access to resources, including ICT. Teachers should pay attention to the equal distribution of their questions across all groups. Any displays and references to this subject in society should show positive role models of gender, race, ethnicity and disabilities.

Monitoring and Evaluation

Provision for maths is monitored and reviewed on a regular basis. This is achieved by:

- the maths Coordinator monitoring resource provision, identifying shortfalls, identifying aspects within curriculum subjects to be included in teacher planning.
- The SLT having oversight of this policy and monitoring the provision of maths.

Maths Intent, Implementation and Impact Statement

Intent	Implementation	Impact
<p>At Boarshaw our intent is to create children who develop procedural fluency, are able to reason mathematically and select the required skills in order to problem solve.</p> <p>We intend to deliver a curriculum that enables children to explore their maths learning in depth so that they may have mastery of the subject.</p> <p>Our lessons value the use of concrete, pictorial and abstract resources and approaches. Children are encouraged to select appropriate equipment, draw a suitable pictorial representation or select an efficient written method in order to reach a solution.</p> <p>We encourage our learners to be resilient, to persevere and to accept that mistakes are often a necessary step in learning.</p>	<p>Our maths teaching follows a mastery approach. At the heart of this is the expectation that all children are capable of achieving in maths.</p> <p>We recognise that sustained mastery takes time and that learning must rest in pupil's long-term memories. Therefore, we regularly visit key facts and skills to build arithmetical proficiency.</p> <p>Each lessons begins with a flashback to prior learning in key areas of maths. Repetition of this is built into a series of lessons in order to enhance retrieval.</p> <p>APE (Arithmetical Proficiency Everyday) sessions provide continues rehearsal oportunitites to embed concepts and ensure progression.</p>	<p>Children are developing the ability to make connections between mathematical skills and concepts.</p> <p>They can demonstrate recall of facts and procedures with developing confidence.</p> <p>The necessary skills to solve problems and to reason verbally, pictorially or in written form are developing.</p> <p>The impact of the maths curriculum is judged termly. The goal is that the majority of the pupils will have sustained mastery at the end of each academic year, linked to the key knowledge for that year group.</p> <p>We aim that the pupils can remember what they have been taught and are fluent in the content.</p> <p>Because learning is a change in long term memory, it can be impossible to see impact in the short term. Therefore, opportunities for teachers to assess retrieval of key knowledge are essential. Adults engage in discussions with the pupils, and provide feedback to the pupils to check understanding and ensure progress is made.</p>