

Maths

Curriculum Statement for the Teaching and Learning of Maths

Intent	<p>The intent of our mathematics curriculum is to provide children with a foundation for understanding number, reasoning, thinking logically and problem solving with resilience, so that they are fully prepared for the future. The curriculum ensures the children are exposed to a range of fluency, reasoning and problem-solving opportunities on a daily basis, developing mastery skills across the school. We follow the White Rose maths scheme and use Classroom Secrets to help promote learning in a real-life context. The children are exposed to a wide range on mathematical resources using concrete, pictorial and abstract which helps them to explain and reason to show their understanding. We use a PAC approach to our lessons P= problem, A= application, C= challenge, which helps our learners understand that exploring a range of methods helps promote life-long learning in preparation for everyday life.</p>
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	The Teaching of Fluency	The Teaching of Reasoning	The Teaching of Problem Solving	Mastery	Applied Vocabulary
Underpinned by	<p>Fluency is an important part of every lesson at Buckton Vale. The children complete a Flashback 4 sticker daily which supports sticky knowledge learning as it recaps on topics already covered consistently throughout the year. The lesson also involves varied fluency questions to consolidate the learning daily. Numbots and TTRockStars are also used in school and at home to assist with fluency in number bonds and times tables</p>	<p>Reasoning is a vital element of the curriculum. Each lesson the teacher models a range of examples during the whole part of the lesson and the children are given opportunities to show their application and understanding by explaining and answering a range of questions.</p>	<p>Problem solving is applied in a variety of ways in each lesson. The children are exposed to problem solving challenges as a group which helps discussion and mathematical application and address common misconceptions, before moving to a variety of problem-solving challenges.</p>	<p>Teaching for mastery is very important, our aim is for all pupils to gain a deep, long-term and secure understanding of maths allowing them to use variation, fluency, representation and thinking to a range of mathematical concepts.</p>	<p>Stem sentences are used and displayed in classrooms to assist with developing confidence in explaining mathematical reasoning and problem solving verbally and in books.</p>

	White Rose	Maths Hub	Flashback 4/Power Up
Implementation	<p>For consistency, coverage and progression the whole school follow the White Rose scheme of learning. We also use Classroom Secrets to ensure that varied fluency, reasoning and problem-solving opportunities are tackled every lesson.</p>	<p>As a school we have been involved in the Mastery approach journey, this has helped us refocus how maths is taught. Following COVID we are using the hub for CPD to assist TAs to be confident in leading small focused interventions to close gaps identified in the classroom.</p>	<p>All classes use Flashback 4s daily to assist with sticky knowledge. Children are regularly exposed to Power Up activities that reinforce learning in a challenging way with plenty of variation to suit all learning styles.</p>

We always start our Maths lessons by reminding the children about what they will be learning:
This is a maths lesson. Maths is an abbreviation of the word mathematics.

(Lower School) - In maths lessons, we learn to recognise and work with numbers, shapes and measurements.

(Upper School) - Mathematics is the science that deals with the logic of shape, quantity and arrangement.

	Number bonds and times tables	Inter school competitions	CPD
Implementation	All children have an access to Numbots (KS1) and TTRockStars to assist with the learning, fluency and rapid recall of number bonds and times tables. EYFS are encouraged to use minute maths at home which is a White Rose add on free to use.	As a Trust, inter-school times table competitions are held for Year 4 students. There are also inter-school maths competitions held throughout the academic year. We also promote TTRockStars days in the school and regularly hold competitions within classes and against classes.	School has re-engaged with the NW Maths hub for this academic year.

	Pupil Voice	Evidence and Knowledge	Evidence in Skills
Impact outcomes	Pupils are keen to share their mathematical thinking and understanding and acknowledge that it is ok if you go in the 'pit of learning' as we can learn from our mistakes. When we hold competitions and events the children are always enthusiastic and keen to take part.	All books show a range of challenges and allow children to move between their own level of challenge when selecting their independent work. Questions purposely expose children to how and when maths is used in everyday life and is a skill to support them become successful citizens. A range of strategies are taught to allow all children to find their own methods to tackle mathematical problems	Lessons are structured to provide a range of mathematical opportunities which can be applied outside school and in other areas of the curriculum. Children are given fix-it opportunities to address simple misconceptions and support them to understand the importance of checking their calculations. Books will show progression across all years and are consistent with the approach to using CPA.

Maths Non-Negotiables

- The short date is written on the top right line of the book with the learning objective on the following line.
- We use challenge questions to encourage children to think deeply about their answers. We will use the White Rose Problem Solving Questions.
- White Rose is used as the main resource. However, this is adapted using other resources (Classroom Secrets/Twinkl) to ensure that there is enough fluency and reasoning and problem solving.
- Teaching PowerPoints to be carefully sequenced with small steps focusing on guided practice and building the learning progressively.
- Teaching PowerPoints to include key vocabulary for the lesson and STEM sentences – where appropriate

- Maths working wall to be relevant for the unit and used. Key vocabulary to be displayed on the working wall.
- There will be a daily maths lesson. When relevant to an objective, Active Maths lessons may take place. This may be used as a pre-teach or a recap lesson.
- A range of varied fluency questions and reasoning and problem-solving questions are provided on a daily basis.
- Flashback 4 completed every morning in Key Stage 2 and Year 2. Year 1 begin this in Autumn 2.
- AFL cups to be used throughout the lesson in both Key Stage 1 (red and green) and Key Stage 2.
- A range of varied fluency questions and reasoning and problem-solving questions are provided on a daily basis. Real-life problems to be relatable and used where necessary.
- Concrete equipment boxes out on tables every lesson.
- Vocabulary to be a key focus of the lesson; on display, used at the point of teaching and referred to through delivery including on the PowerPoint.
- Most responses from children will be in full sentences and children will be able to explain their answer fully using the key word 'because'.
- STEM sentences to be incorporated within a sequence of lessons to support learning. These need to be chanted and rehearsed chorally to enhance the understanding of the key concept.
- Adults to move round the room giving instant feedback where necessary and using the marking codes in the books.
- SEND children to have work appropriate for their level.
- Children are to ensure that their presentation is neat - One digit per square should be used.
- Maths interventions to take place as soon as possible after the point of learning through hot spotting to ensure that any misconceptions are addressed.
- We follow the principle new day, new page.
- Purple pen should be used to fix errors in calculations – Year 2 upwards.