NAWTON AND ROSEDALE ABBEY COMMUNITY PRIMARY SCHOOLS FEDERATION

CURRICULUM STATEMENT FOR MATHEMATICS

Rationale:

The National Curriculum states: *'Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.'*

At Nawton and Rosedale Abbey, our teaching of mathematics encourages children to make rich connections across mathematical ideas to develop fluency, reasoning and problem solving across mathematical areas. As mathematics is an interconnected subject, children are encouraged to move fluently between representations of mathematical ideas and apply this knowledge to other subjects including Science.

Curriculum intent:

At Nawton and Rosedale Abbey, our intent for the mathematics curriculum is to ensure children become fluent in the fundamentals of mathematics to give children a secure foundation of knowledge to build upon. Key areas to ensure this security of understanding include the instant and rapid recall of key areas across the mathematics curriculum including the multiplication and division facts up to 12 x 12, and repeated practice over time to ensure conceptual understanding. Building on these secure foundations, our intent is for children to be able to use mathematical language to reason, identify relationships, justify their understanding, and encourage mathematical discussion around more complex problems. Building further to this, it is our intent that children can apply this knowledge when tackling more sophisticated problems, and children can break these down into simpler steps to find a solution. Resilience and perseverance when exposed to these more complex problems is a fundamental skill that children will develop during their mathematical learning at Nawton and Rosedale Abbey.

Curriculum implementation:

At Nawton and Rosedale Abbey, mathematics is taught as a daily discrete core subject, including in EYFS following the White Rose Mathematics Scheme of Work. Key learning in mathematics, is also revisited in other curriculum subjects including Science throughout the academic year. All areas of mathematics are taught as mixed age blocks from Reception to Year Six, in EYFS it is taught as a discrete lesson and through provision, in Key Stage One, five discrete sessions of forty- five minutes, and in Key Stage Two, five discrete sessions of one hour. In both Key Stage One and Two, one session per week is dedicated to mathematical investigation and the development of resilience, perseverance and the systematic solving of more sophisticated problems. To ensure that children are exposed to a wide range of content, other resource hubs are used alongside White Rose Maths, including NRICH to ensure that new knowledge

and skills, are built on what has been taught previously. New knowledge is taught using a concrete, pictorial and abstract approach to firmly lay the foundations for the children and allow them to confidently apply this knowledge throughout their learning journey. Staff refer to the calculation policy when teaching mathematics; however, are also acutely aware that children may also find their own efficient method of calculation throughout their mathematical journey.

Curriculum impact:

At Nawton and Rosedale Abbey, the impact of the mathematics curriculum will be closely monitor by use of daily observation, and regular assessment. Daily, staff will identify children that require more support, or further challenge by use of assessment for learning in the classroom, pupil voice, and observing the learning carried out. Children will be assessed at the end of each White Rose Maths 'block', to ensure that we adopt a 'keep up, not catch up' approach to learning. Staff will identify any areas for development, and immediately act upon this, including revisiting learning, or targeting specific children for further support. To ensure that mathematical learning is interconnected and secure, children will also be assessed termly, to ensure that mathematical knowledge is retained, and children can apply this knowledge across a range of contexts. This assessment will be analysed and acted upon to ensure the children are fluent in the mathematical concepts taught and can use their mathematical knowledge when solving more sophisticated problems.

The mathematics leader will monitor the mathematics curriculum and progression of learning every half- term through a planned cycle of:

- Learning environment walks,
- Pupil voice conversations,
- Lesson observations and feedback,
- Book scrutiny,
- Assessment analysis and next steps,
- Moderation with other schools.