Mathematics Policy
2022

Our Mission:

'To develop responsible, independent individuals who love learning and have the knowledge and attitudes to be successful in an ever-changing world'

St. Lawrence Primary School

Mathematics Policy

<u>Mission</u>
To develop responsible, independent individuals who love learning and have the knowledge and attitudes to be successful in an ever-changing world.

<u>Purpose</u>
Mathematics is a creative and highly inter-connected 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 in most forms of employment. A high quality Mathematics education, therefore, provides a foundation for understanding the world, the ability to reason mathematically and a sense of enjoyment and curiosity about the subject. Mathematics is a proficiency which involves confidence and competence with numbers and measures. It requires an understanding of the number system, a repertoire of computational skills and an ability to solve number problems in a variety of ways in which information is gathered by counting and measuring and is presented in graphs, diagrams, charts and tables. Mathematics gives children a way of coming to terms with their environment. Practical tasks and real-life problems can be approached from a mathematical point of view. Mathematics provides children with imaginative areas of exploration and study and gives them the materials upon which to exercise their mathematical skills. These skills are a necessary tool of everyday life. Mathematics should help children to develop an appreciation of, and enjoyment in, the subject itself as well as a realisation of its role in other curriculum areas.

<u>Ethos and Beliefs</u>
At St Lawrence School we follow the White Rose Maths Scheme and support the teaching and learning with other resources such as Corbett Maths and *Numberblocks.*

We follow the Mastery Approach when teaching Mathematics which means that our lessons have number at their heart. A large proportion of time is spent reinforcing number to build competency and we have separate Fluency Sessions and a Fluency Policy to support this. A Mastery approach ensures that our Mathematical teaching supports the idea of depth before breadth and ensures that our pupils are given the opportunity to stay together as a group as they work through their year group curriculum. In addition to this, we ensure that pupils are given lots of opportunities to develop their reasoning and problem-solving skills (this is a stand-alone section of the White Rose Scheme and one that we use in Years 1 to 6).

The Concrete-Pictorial-Abstract (CPA) approach is used when introducing children to new Mathematical concepts, as well as when consolidating learning.

<u>Concrete</u> – Pupils are first introduced to an idea or skill using real objects. In division, for example, this might be done by separating apples amongst children. This is a 'hands on' approach and all classrooms have a wide range of practical resources available for pupils to use.

<u>Pictorial</u> – Pupils are encouraged to relate their concrete understanding to pictorial representations. These representations may be a diagram or a picture of the Mathematical problem.

<u>Abstract</u> – This is the symbolic stage – the pupils use Mathematical symbols to represent problems, for example 12 x 2 = 24.

<u>Planning</u>

At St Lawrence School, we follow the White Rose Scheme of Work from Reception to Year 6, with *Numberblocks* planning from NCETM used to support the teaching of Mathematics in our Foundation Stage.

<u>Autumn Term Plans for Y1 – Y6</u>

[Y1 Autumn SOL.pdf (whiterosemaths.com)](whiterosemaths.com)   [Y4 Autumn SOL.pdf (whiterosemaths.com)](whiterosemaths.com)

[Y2 Autumn SOL.pdf (whiterosemaths.com)](whiterosemaths.com)   [Y5 Autumn SOL.pdf (whiterosemaths.com)](whiterosemaths.com)

[Y3 Autumn SOL.pdf (whiterosemaths.com)](whiterosemaths.com)   [Y6 Autumn SOL.pdf (whiterosemaths.com)](whiterosemaths.com)

<u>Spring Term Plans for Y1 – Y6</u>

[Y1 Spring SOL.pdf (whiterosemaths.com)](whiterosemaths.com)   [Y4 Spring SOL.pdf (whiterosemaths.com)](whiterosemaths.com)

[Y2 Spring SOL.pdf (whiterosemaths.com)](whiterosemaths.com)   [Y5 Spring SOL.pdf (whiterosemaths.com)](whiterosemaths.com)

[Y3 Spring SOL.pdf (whiterosemaths.com)](whiterosemaths.com)   [Y6 Spring SOL.pdf (whiterosemaths.com)](whiterosemaths.com)

(Summer Term to follow)

<u>Policies</u>

Addition and Subtraction Calculation Policy - https://assets.whiterosemaths.com/newschemes/Addition%20and%20subtraction%20calculation%20policy%20July%202022%20v2.pdf

Multiplication and Division Calculation Policy - [PowerPoint Presentation (whiterosemaths.com)](whiterosemaths.com)

Fluency Policy - [Fluency_Policy_2021 (sch.je)](sch.je)

SMSC in Mathematics

Spiritual

We promote spiritual development in Mathematics by encouraging the children to experience the awe and wonder in Mathematics. For example, they look at Maths in nature such as patterns on creatures and plants and older children explore the Fibonacci sequence seen in many natural structures. Additionally exploring number patterns and patterns in shapes adds to the appreciation, person fulfilment and wonder of Maths.

Moral

We promote moral development in Mathematics by encouraging the children to show respect for each other's views, especially when they are engaged in group tasks. Reasoning forms a large part of all Mathematics work undertaken at St Lawrence school and by applying logic to their reasoning, pupils gain and understanding of the idea of right and wrong, cause and consequence and the idea of Mathematical truth.

Social

We promote social development in Mathematics through the varied and flexible groupings that children have the opportunities to work in. Within Maths lessons, children may work independently, in pairs, small groups, similar and mixed ability. In all these ways of working, the children are encouraged to discuss, listen, share ideas, reason, question, offer constructive criticism and resent their ideas to a wider audience. The values and mutual respect, team work and the idea that we learn from our mistake are integral to all work in Maths.

Cultural

We promote cultural development in Mathematics through linking aspects of the curriculum with Mathematical ideas from other cultures and times that have helped to form Mathematics as we know it today. For example, we may explore Egyptian symbols, Roman numerals, Chinese methods for teaching Maths and, in a more modern-day context, children will explore time zones around the world and practise converting money into different currencies. All these experiences help to promote the richness of Mathematics and build the children's understanding of how Maths has developed and will continue to evolve as we move into an ever-greater digital age.

Version	Date Issued	Issued by	Reason for Change	Presented	Approved by:	Date
0.1	September 2020	Kim Banks	Draft	Staff Meeting	All staff	Sept 2020
0.2	September 2021	Kim Banks	Final Version	Staff Meeting	All staff	Sept 2021
0.3	November 2022	Kim Banks	Updated Maths Scheme			