

## Maths Intent, implementation and impact.

### Intent -How we have planned our maths curriculum

The intention of the maths curriculum at St Nicholas and St Laurence is that all children are taught to become competent mathematicians; we strive to embed the skills and processes necessary to enable children to use and apply their maths learning in a variety of contexts. We aim to develop children's enjoyment of maths and provide opportunities for children to build a deep, sustainable, conceptual understanding of maths. We want them to understand that maths is supposed to be challenging at times if they are growing their brain and that this is a good thing. Our goal is for children to become mathematicians who are confident to apply their knowledge to everyday problems and challenges.

We believe that building number fluency is crucial to ensuring children's success and confidence in number. Our aim is that children will leave KS1 with fluency in calculation and a confidence and flexibility with number. Attention is given to key knowledge and understanding needed in Reception classes, and progression through KS1 to support absolute security in early number and knowledge of number facts. In Years 3 and 4 careful attention is paid to the learning of multiplication facts. Knowledge of multiplication and division and its applications forms the single most important aspect of the KS2 curriculum, and is the gateway to success at secondary school. Our ambition is to give our children all the tools they need for success in the future.

Our approach to the teaching of mathematics develops children's ability to work both independently and collaboratively as part of a team. Through planned daily mathematical talk, children will develop the ability to articulate and discuss their thinking. By the end of Key Stage Two, children will leave our school as lovers of mathematics and be prepared for the next step in their mathematical education.

Impact

### Implementation - How we teach our maths curriculum

- After much research, we chose Power Maths as the scheme to follow and enable our transition to maths mastery teaching as we felt it gave enough structure to ensure a maths mastery approach is achieved whilst still giving teacher enough autonomy to meet the needs of their class.
- Maths is taught daily as a dedication lesson.
- Power Maths is used to support the identification of small steps which facilitate all children within a year group through the content at the same pace through differentiation through depth, rather than acceleration.
- Having engaged with a problem through starting task and guided practice sections of the lesson, they then engage with their independent tasks for the lesson. For the vast majority of lessons, the main task is completed from the Power Maths practice book. This may then be supplemented with further tasks sourced by the class teacher to support the development of greater depth learning for those children who have mastered the concept being taught. Where necessary teachers will plan in additional consolidation lessons if they feel children need more opportunities to practice a skill.
  - In addition to the maths lesson, every class has an additional session on number fluency each day. In Early Years this is based on the mastering number programme. In KS1 number sense is used to secure efficiency in number bonds and an understanding of the flexibility of number. From Spring term in Year 3 the daily session focuses on multiplication facts. Each session is approximately 10-15 minutes long.
- All children across all year groups are encouraged and taught to use a variety of manipulatives to support their acquisition of the concept being taught.
- Open-ended questioning is crucial within every lesson to encourage children to form their own understanding of a mathematical concept being taught.
- Each classroom has a maths working wall where ideas and key vocabulary can be revisited allowing children to use this area to support their learning and develop their independence.

\*Children are encouraged to verbalise their mathematical thinking using full sentences and appropriate mathematical vocabulary.

- Marking and feedback is timely and supports the children in knowing the next steps in their learning. We use live marking effectively in maths to ensure that any misconceptions are addressed within the lesson and to extend the children's learning

## **Impact** -How we assess the progress our pupils make in maths

### **PUPIL VOICE**

Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they love learning about maths. They can articulate the context in which maths is being taught and relate this to real life purposes. Children show confidence and believe they can learn about a new maths area and apply the knowledge and skills they already have.

### **EVIDENCE IN KNOWLEDGE**

Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential. Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations. Children demonstrate a quick recall of facts and procedures. This includes the recollection of the times table. They can use these facts flexibly and fluently so that they help them with other areas of mathematics.

### **EVIDENCE IN SKILLS**

Pupils use acquired vocabulary in maths lessons. They have the skills to use methods independently and show resilience when tackling problems. They show flexibility and fluidity to move between different contexts and representations of maths. Children show a high level of pride in the presentation and understanding of the work. They have the ability to recognise relationships and make connections in maths lessons. Teachers plan a range of opportunities to use maths inside and outside school.

### **OUTCOMES**

At the end of each year we expect the children to have achieved Age Related Expectations (ARE) for their year group. Some children will have progressed further and achieved greater depth (GD). Children who have gaps in their knowledge receive appropriate support and intervention.