



## Bottesford CE Primary School Maths Vision



### **INTENT**

*At Bottesford Primary School, our Maths Mastery curriculum has been developed to ensure every child can achieve excellence in maths. Mastery involves knowing how and why the maths works it means being able to use mathematical knowledge in new and unfamiliar situations. We encourage children to develop their knowledge and understanding of Maths and aim for all pupils to enjoy, achieve and become confident, efficient mathematicians. Our Maths lessons are planned, delivered and assessed using the Power Maths scheme.*

### **At Bottesford we aim:**

- To implement the current legal requirements of the Early Years Foundation Stage (EYFS) and the National Curriculum (NC)
- To foster positive attitudes, fascination and excitement of discovery through the teaching and learning of mathematical concepts
- To ensure pupils become fluent in the fundamentals of maths, developing conceptual knowledge and an ability to recall and apply knowledge rapidly and accurately
- To ensure that pupils can reason mathematically and solve problems
- For our children to develop a 'can do' attitude and perceive themselves as mathematicians
- To broaden children's knowledge and understanding of how maths is used in the wider world
- For our children to use and understand mathematical language and recognise its importance as a language for communication and thinking
- To develop a secure understanding of key concepts in an engaging way.

### **IMPLEMENTATION**

#### **In our lessons:**

- New learning is taught through working with concrete resources, pictorial representations and moving onto the abstract maths
  - Focus on mathematical thinking and language
  - Teachers plan in small steps that help children on a clear journey through their maths learning by mastering one step at a time
  - Precise questioning is used to deepen understanding and help identify the underlying mathematical structure or help children to make links between other areas of maths
  - Problem solving is central
  - Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems which require reasoning and putting their new learning in a new context, before learning new content
  - Pupils who are not sufficiently fluent with earlier maths material will consolidate their understanding, including through additional practice, before moving on
- Some children, who are significantly less secure in their maths skills and understanding, will work on their relevant maths skills through the guidance of their class teacher and the SENCO. The children will be supported so that they can progress at their pace and in their preferred learning style.

#### **Daily Fluency:**

Daily fluency sessions are delivered in short bursts every day throughout the week, in all year groups. These sessions aim to:

- Practise number facts
- Revise something that the class learnt last term
- Revise something that the class learnt last week

The curriculum relies heavily on efficiency and known number facts. These sessions help to develop and secure this knowledge. At Bottesford we aim to reach high expectations of maths knowledge by the end of each year.

### **Mastery in the Early Years**

The principles of mastery are the same for EYFS but they are applied within the context of high quality Early Years' provision. This includes learning through play within indoor and outdoor learning environments as well as through discrete teaching sessions or lessons led by a teacher. Teachers use the curriculum alongside Power Maths to create lessons that progress through the Early Years and prepare them for KS1.

Practitioners provide different contexts for children to explore the same mathematical idea and multiple representations of this idea (including pictorial, informal jottings and maths equipment). For mastery in Early Years, children are encouraged to communicate their mathematical thinking in a wide variety of ways including through manipulation of resources, gesture, pointing, body language, mark-making and talk. Maths is embedded into the continuous provision throughout the day to support independent learning, allowing children to explore the maths further and become more confident learners.

### **Assessment**

Within Maths Mastery lessons assessment is continuous and ongoing with teachers and teaching assistants assessing what their pupils are, or are not understanding as the lesson progresses. This is then used to scaffold each segment of the lesson. Interventions will be both planned for and 'live', meaning that misconceptions are dealt with immediately and high attaining pupils are challenged appropriately. Pre and post teaching aims to ensure that all children can achieve and are prepared for the following lesson.

#### **Early Years Foundation Stage**

- Reception Class practitioner's ongoing observational assessments made early in Autumn Term 1 ascertain a baseline which then informs subsequent teaching and learning for each child
- Future attainment is noted using photographs and observational notes. Progress is recorded in each child's Learning Journey on Tapestry and the next steps to be taken are identified. Progress is monitored termly
- Statutory assessments are made on entry and on exit of the EYFS

#### **KS1 and KS2**

- In the daily mathematics lesson, formative assessments are made as practitioners observe, question and evaluate outcomes to further determine progress made and the next steps in learning
- Pre/ post assessments take place for each new unit of work
- End of unit assessments are completed as appropriate
- Summative assessments are made at the end of each half term to monitor children's knowledge and understanding of concepts taught
- Power Maths Arithmetic and Reasoning tests are used in Year 1 - 6
- Progress is discussed at termly 'Pupil Progress Meetings' and focus children are indicated
- Children in Year 2 and Year 6 will sit statutory SATs tests in the Summer Term

### **IMPACT**

The children will have the mathematical language to communicate their maths ideas and they will independently apply the concept to new problems in unfamiliar situations. At each stage of learning, pupils should be able to demonstrate a deep, conceptual understanding of the topic and be able to build on this over time. It is not about just being able to memorise key facts and procedures, which tends to lead to superficial understanding that can easily be forgotten. Pupils who are mastering the maths will be able to select which mathematical approach is most effective in different scenarios and explain their thinking to show their understanding.

Our teachers use the Power Maths scheme of work to guide the planning of maths lessons. However, we adapt lessons and add steps and challenges to the lesson plans as appropriate to meet our pupils' needs.

The implementation of this curriculum ensures that, by the time children leave Bottesford Primary School, they are:

- Resilient learners that can make links and connections between key areas of mathematics.
- Secure and fluent in their recall of arithmetic skills and have an ability to problem solve.
- Able to see how mathematics is relevant to their future life.
- Confident learners that enjoy mathematics.