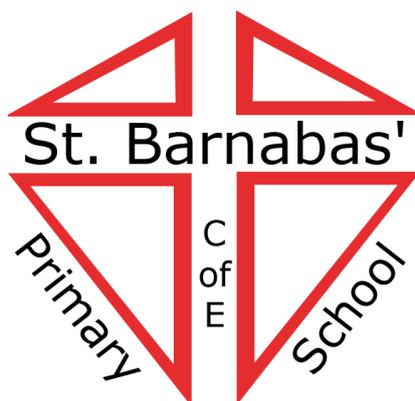


**Heaton St. Barnabas' CE (VA) Primary School**

## **Policy For**



# **Mathematics**

**This policy was approved by Curriculum Committee**

**On: 21<sup>st</sup> May 2019**

**Signed.....**

**Position: Chair of Curriculum Committee**

**This policy will be reviewed in Spring 2021**



## HEATON ST. BARNABAS CE PRIMARY SCHOOL MATHEMATICS POLICY

### PURPOSE OF STUDY

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 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.

### AIMS

The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

### Information and communication technology (ICT)

ICT is used to support and enrich the teaching of mathematics where appropriate. This includes the use of programs such as MY Maths and Times table Rock stars as well as the use of interactive games to reinforce the teaching and practise of mathematical concepts.

### Spoken language

The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

### School curriculum

The programmes of study for mathematics are set out year-by-year for key stages 1 and 2. Schools are, however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, schools therefore have the flexibility to introduce content earlier or later than set out in the programme of study. In addition, schools can introduce key stage content during an earlier key stage, if appropriate. All schools are also required to set out their school curriculum for mathematics on a year-by-year basis and make this information available online.

### Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

The framework for the teaching and learning of Mathematics in our school is the Primary Framework for Numeracy. This is delivered through a range of resources including Rising Stars, The White Rose Maths Hub and Maths No Problem.

## PROCEDURES

### Planning and delivery

Maths planning and delivery of maths lessons is the responsibility of each class teacher often with guidance or support from the Maths Leader. Children have a 45-60minute lesson each day as well as other slots during the week to practise their mental maths.

Planning is based around a theme which may last from 1-3 weeks. Within the theme children will be taught mathematical skills, both number and word problems. Once they have mastered these skills they will then use them to reason and explain before ending the unit of work with problem solving or an investigation where they can use and apply the skills they have mastered. Themes are revisited throughout the year.

Maths is taught with a strong emphasis on models and images to enable children to understand why they are doing something not just how. Most lessons start with a story or are set in a context so that children are given a purpose to their learning and can relate it to situations they are familiar with.

### Teaching strategies

Maths is taught using a number of different strategies these would include

- a small amount of whole class teaching
- split teaching where some children would be working independently while others would be being taught by the class teacher
- Group work – sometimes child led sometimes supported by an adult
- Paired work
- Investigative work
- Independent work

### Marking and Feedback

In KS1 work is marked during the lesson with the child so that feedback and next step comments can be given verbally. In KS2 worked is sometimes marked by the child or by a peer and then always checked by the class teacher. Where appropriate, children are given a next step comment, to help extend their learning, which needs to be responded to in the next lesson. Daily marking is essential as it enables the class teacher to know what the children have achieved as well as to make judgements about what needs to be taught next.

### Assessment

At HSTB we have a strong emphasis on Assessment for Learning which is done throughout a maths lesson through targeted questioning and teacher's response to children's answers. Each maths lesson ends with a plenary which is used to assess learning, go over any misconceptions and gives children an opportunity to assess their own learning. Any children who have not achieved by the end of the lesson have the opportunity, where appropriate, to some intervention time with a TA, maths leader or as part of the lesson the next day

All this information helps teachers make a more formal assessment of children in their class and make a judgment as to the level they have achieved at the end of each term.