

# Coleshill Church of England Primary School

Inspiring our children to flourish and enjoy 'Life in  
all its fullness' (John 10:10)



## Maths Policy

# September 2020

Date adopted by Governing Body:

Reviewer:

## 1. The School Vision

Our school's purpose is built upon the fundamental principle that **every child matters to God** and has the right to be treated with dignity, learn about their innate worth and understand their unique value and place in God's world. We provide positive opportunities for all children to experience a community living out Christian values and making choices which lead to **hope, aspiration and fulfilment**.

We believe our school should be **a place where we all want to be**; a place where children feel safe and secure, where God's love is reflected in our care for every individual. We nurture our community, ensuring **children flourish** physically, mentally, emotionally and spiritually thereby achieving their potential. As a church school we find inspiration in the life and teachings of Jesus Christ, celebrating the diversity around and amongst us and applying our understanding of tolerance and respect.

Our curriculum is about **bringing engagement, fun and enthusiasm to learning**. We aspire to provide outstanding educational experiences which will inspire children to develop into lifelong independent learners. **Our high expectations develop character** and pride in our identity as Coleshill Church of England Primary school preparing every child for their future.

### 1.1 The School Vision Seen Through this Policy

Coleshill Church of England Primary School & Nursery is part of the Birmingham Diocesan Multi-Academy Trust (BDMAT). All staff and governors aim to make the school a place where Christian love and commitment are expressed in everyday life. We aim within the curriculum to ensure that planned lessons and teaching **brings engagement, fun and enthusiasm**. Our curriculum is designed to give a broad and balanced learning experience for all our children and equip them fully for the next stage in their education.

Coleshill C of E Primary School is committed to equality and valuing diversity and actively supports practices that promote genuine equality of opportunity for all staff and young people.

## 2. Introduction

At Coleshill Primary, our Mathematics curriculum has been developed so that all children are able to fluently tackle problems in different contexts, problem solve by being resilient learners that can adapt effectively, and apply reasoning skills to ensure they fully understand what they are learning. This understanding is provided through a concrete, pictorial and abstract approach which links closely with the activities provided to develop the long term memory. Through fun, engaging and sequenced lessons, we endeavour to ensure that an enthusiastic attitude, and a deep understanding, stays with them for life.

“There should be no such thing as boring mathematics.” – Edsger Dijkstra

## 3. Planning

### 3.1 Long and Medium Term

From the academic year 2018-2019 staff have used Focus to structure and logically sequence their medium and long term planning. Focus gives staff an overview of each term as well as breaking down each term into key performance indicators. Staff have the freedom to use the focus scheme in a way that suits their class' needs the most. The scheme ensures that every year (Year 1 – Year 6) has full coverage of the curriculum as well as consolidation weeks to plug any gaps in learning.

### 3.2 Short Term Planning - 'Green Route'

Staff use a planning process called the 'Green Route' – planning with the end point in mind. The aim of the short term planning is that by the end of the sequence, children will be fluent in the focused objective (s), use them to reason and problem solve. Staff are encouraged to find the hidden areas in order to achieve the

skill, thinking about previous learning, mental work, vocabulary development and resource development.

### **3.3 Short Term Planning - Resources**

A range of resources are used in order to prepare children to answer a variety of fluency, problem solving and reasoning questions. The resources allow children to take risks, justify reasons and develop resilience. The Focus Scheme provides staff with a range of varied questions that can be adapted to the needs of their class. Furthermore, staff have the freedom to use other resources such as: White Rose, NCETM and Classroom Secrets. Sheets of printed calculations should only be used if the children are clear when to move on once they are confident enough to do so (4.3).

### **3.4 Interrupting the forgetting**

'Roughly 70% of a memory is lost within the first 24 hours "if no attempt is made to retain it" and a further 20% within a week.' We adopt strategies and activities to ensure that children remember ideas, rules and methods from lessons taught a week ago, a month ago, 6 months ago. Staff are expected to use these activities throughout the day and can choose whether they are completed at the start of the day, the end of the day or at the beginning of a math lesson. These activities can take anywhere between two and ten minutes depending on the skill (s) that is being focused on.

## **4. Teaching**

### **4.1 Typical Lesson structure – elements**

- Contextualization
- A range of pictorial, abstract, concrete resources being used
- An AFL to guide the children in their learning
- A range of challenges (4.3)
- Various fluency, problem solving and reasoning activities
- Tiered teaching (4.2)
- Mini-plenaries where necessary
- Fun/exciting/conversation
- 5 curriculum hours per week – particular skills may take more than one week to complete where as some may be less

### **4.2 Typical Lesson Structure - Tiered teaching**

At Coleshill we adopt a tiered teaching approach where children benefit from accessing the support they need and activities they require throughout the learning journey. The tiered teaching approach allows children to assess where they are in the learning journey as well as the teacher taking the necessary steps to support all the children in their class.

### **4.3 Challenge 1, 2, 3.**

Following the use of a teacher led Assessment for Learning task, children are able to use self-assessment (and teacher guidance where necessary) to choose the task which is appropriate for them. The connection between the tasks means that if a child is ready to move on, they can go onto the next challenge. Furthermore, if a child knows that a previous challenge would suit them better, this is available.

## **5. Assessment**

### **5.1 I Can Stickers**

'I Can' stickers are a useful formative assessment tool used by staff at the end of a sequence of lessons. The 'I Can' stickers link to the Focus Scheme as well as FFT. They are sent to the Headteacher weekly with 'I Can' in the subject. For example: *I CAN Yr 6 Aut 1 Wk 1.*

## **5.1 Feedback not Marking**

In maths, children use the Assessment for Learning to guide them in their learning journey. This allows them to gauge what challenge they need to work on. Moreover, children use the self-marking stations to check their own answers. Using the self-marking station means that children can go back and understand where they were wrong. It also aids in improving independence and perseverance.

Teachers use the feedback to help ensure that children get the required support in their next steps in learning. This could be during the lesson, the next day or as part of a focused intervention group.

Writing in maths (e.g. when children are explaining a reasoning problem) should be (a) expected to be of the same standard as in literacy and (b) marked in the same way as in literacy books.

## **5.1 NfER Assessments**

In line with practice across the BDMAT, children use NFER summative assessments each term. Termly NfER assessments help to guide teachers with their planning and preparation as well as giving a focus for particular areas in which their class needs to focus on. This leads onto helping generate focused intervention groups.

Teaching staff are expected to mark the assessments themselves to help support future planning. The results should be tracked termly and analysed systematically by staff. Staff are expected to complete question analysis for the arithmetic paper in order to assist in structuring focused interventions as well as to feed similar questions into math starters (linked to Interrupting the Forgetting). The results will then be shared with the BDMAT central team.

## **5.1 FFT Pupil tracker system**

FFT pupil tracker allows staff to track the outcomes of individual lessons and gives staff a snapshot of the progress made at the end of the teaching sequence. The system is also useful to group children for interventions and look at trends within the classroom e.g. SEND children, GDS children. Assessments from 'I Can' statements are directly transferred to the curriculum tracker to give a 'live' picture of attainment across the class.

# **6. Monitoring**

## **6.1 Book Scrutiny**

Book scrutinies are completed termly by the maths lead. There is always a specific focus for book scrutinies and feedback is given immediately. In the following book scrutinies, the areas of focus are then looked at again. CPD is also given to particular members of staff if needed. Outcomes from book monitoring are logged onto Perspective.

## **6.2 Lesson observations**

Lesson observations are completed termly by the maths lead. Similar to the book scrutinies, lesson observations have a specific focus. Again, feedback is given immediately and CPD is provided where necessary. Like book monitoring, areas of development are followed up to secure improvement in subsequent observations and outcomes are recorded on Perspective.

## **6.3 Data reviews**

Data reviews are completed termly by the maths lead and the class teacher. The data, linked to FFT and NFER testing, are used to plug gaps in children's learning through focused interventions and added to the 'Green Route' of planning where possible.

## 6.4 Monitoring of this Policy

The policy will be reviewed biannually by the governors to evaluate its effectiveness and relevance in light of any wider changes in maths practice.

