



Mathematics

October 2020

Last reviewed by RH	October 2020
Next review date	October 2023

Beckley Church of England Primary School

Mathematics

Our Vision

Promote and achieve excellence in all areas of school life. The school will be a place and a community where all children are happy and safe, where they can flourish and achieve their best in a caring, inclusive environment.

Kindness is our core value, underpinning our school vision: **“Be kind to one another, tender-hearted, forgiving one another”** *Ephesians 4:32*

Curriculum Intent

Each child will start learning – seeking knowledge developing skills – to prepare them to make their way and to contribute, to make changes and to thrive in our changing world of challenge and delight. In this we aim to:

- Develop foundations and individual enthusiasm for life-long learning.
- Inspire curiosity, confidence and creativity in all children.
- Teach the children with their strengths and interests in mind.
- Create many opportunities to spark interest for all children.
- Encourage a secure and positive attitude towards others and the environment.
- Be ambitious for every child, whatever their prior attainment or need.
- Encourage resilience through understanding the importance of making mistakes, listening and responding to feedback and being open-minded.

Aims and Rationale

Mathematics is an area which leads to a greater understanding of the world around us, providing a precise means of communication using numbers, symbols and shapes. It is a powerful universal language, used to explain, predict and represent events and tackle problems in everyday life. Through their growing knowledge and understanding, children learn to appreciate that mathematics is a very effective tool to strengthen learning across the curriculum range, to prepare them for the challenges of everyday life, whilst maintaining a fascination of its own.

Our curriculum for mathematics aims to ensure that all pupils:

- Become fluent in the fundamentals of mathematics, including the varied and regular practice of increasingly complex problems over time.
- Reason mathematically by following a line of enquiry, understanding relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can solve problems by applying their mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

In order that our children receive a broad and balanced mathematical curriculum, we ensure that the following domains are covered each year:

- Number:
 - Number and place value

- Addition and subtraction
- Multiplication and division
- Fractions, decimals and percentages
- Measurement
- Geometry
 - Properties of shape
 - Position and direction
- Statistics
- Ratio and proportion (Year 6)
- Algebra (Year 6)

Our school is committed to fostering positive attitudes towards the subject, whilst ensuring that all pupils develop deep conceptual understanding (in part, through exposure to a range of models and images) and mastery across the domains listed above, and in line with their age group. Teachers will actively diagnose and address perceived 'gaps' in conceptual understanding. How pupil learning is then developed as a result will be monitored.

Curriculum Coverage and Progress of Skills

Beckley Primary School links its teaching of Mathematics to the Primary National Curriculum in England, ensuring our provision at least meets (and often exceeds) these requirements.

Topic overviews for each class ensure all domains are covered. Checklists of Key Objectives are used by the teachers and shared with the children to ensure full curriculum coverage and progress over time.

Pupils are taught maths for at least one hour on average each day. Teachers use a variety of planning resources to best meet the needs of learners. These include White Rose Maths and Hamilton Trust, as well as any resources teachers find appropriate to meeting the needs of learners.

Children will:

- have experience of and use a variety of mental and written strategies when calculating and solving problems;
- use a variety of ways of recording their work;
- make sensible predictions, based on mathematical reasoning;
- demonstrate and explain their methods and reasoning and communicate results;
- explore reasons for wrong answers.

Teachers will:

- plan for the needs of individuals and groups of pupils;
- plan for progression and continuity through the use of formative and summative assessment;
- plan to provide opportunities for problem solving activities;
- use IT as a means of delivering curriculum content and to engage learners' interest;
- highlight the importance of Multiplication and Division Facts;
- develop pupils' mental maths fluency and efficiency;
- ensure there is provision for children with SEN, as well as for higher achievers.
- monitor and record children's progress through formative and summative assessments.

Multiplication Tables

Multiplication Tables provide for fluency in a range of domains within mathematics. Children are taught tables in order, until they become increasingly fluent and ready to move on to the next table. The recommended order is: 2x, 10x, 5x, 3x, 4x, 8x, 6x, 7x, 9x, 11x, 12x. Tables are regularly recapped and related division facts are learnt.

Assessment, Recording and Reporting

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 majority of pupils are expected to reach the expected level by the end of each academic year. Pupils' attainment will be measured using tests (such as PUMA tests), pupils' work and teacher assessments. Assessments are recorded and targets set using Target Tracker. This information is used to inform teachers, leaders and parents.

Moderation of children's work and assessments are carried out during regular staff meetings, to ensure consistency throughout the school. Children's attainment and progress is reported to parents through parent-teacher meetings and in the end of term pupil report.

Foundation Stage

The Foundation Stage follow the EYFS Curriculum (see EYFS Curriculum).

Children work towards the Early Learning Goals which should be met by the end of the Year.

Children are continually assessed (against the ELGs) throughout the FS through:

- individual and group observations;
- adult led activities;
- child initiated activities.

Assessments (evidence of a child meeting the ELGs) is recorded in folders and continually updated throughout the FS.

Monitoring

The coordinator, alongside the SLT, will monitor mathematics throughout the school, to ensure good quality delivery of the curriculum. This is outlined in the mathematics action plan. This will be completed through:

- discussion with teachers;
- lesson observations;
- learning walks;
- monitoring of pupils' work;
- data

Inclusion

At Beckley Primary School we provide support and resources for success and challenge at all levels. We provide equal opportunities for all learners regardless of age, gender, ethnicity, impairment, medical concerns, attainment or background.

Materials and other resources

Each classroom has its own maths resources as well as access to shared resources. Teachers share resources as needed.

Review

The implementation of this document will be monitored by the Maths Coordinator and Senior Leadership Team (SLT) and will be updated in line with new initiatives. This document will be reviewed in October 2023.

Related Policies

Beckley Calculation Policy

Beckley Calculation Policy - Guidance