



Buckland Primary School Mathematics Policy



Governors' Responsible:	Full Governing Body (FGB)
Policy Originator:	Sandra Wylie
Next Annual Review Due:	September 2022

Members of staff responsible: Laura Davis and Debbie Houghton

School Vision

Believe

Excel

Strive

Together

Introduction

This policy outlines the teaching, organisation and management of mathematics taught and learnt at Buckland Primary School. The policy is based on the 2014 expectations and aims of the 'New Curriculum' for mathematics and the Early Years 'Development Matters' EYFS document.

We recognise the role of mathematics in all aspects of life. It is a powerful and concise means of communication which can be used to explain, describe and investigate our world. We are committed to helping children to understand this through the provision of structured mathematical experiences leading from the practical to the development of abstract concepts. We believe that given appropriate opportunities and experiences our pupils will become confident, competent and enthusiastic mathematicians. We have the highest expectations of their ability to attain their potential in mathematical understanding.

Aims

The National Curriculum for Mathematics 2014 aims to ensure 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 similar steps and preserving in seeking solutions.

Each child should be able to think and solve problems mathematically by using the appropriate skills, concepts and knowledge. They should be provided with rich and enjoyable experiences related both to their individual needs and to the wider requirements of society.

We aim for each child to:-

1. Believe they can succeed in mathematics
2. Reach their end of year expectations and made good progress.
3. Enjoy mathematics and be confident by building on their existing skills and knowledge, and by making mathematics relevant to real life situations.
4. Be able to apply previously acquired concepts skills and knowledge and understanding to new situations both in and out of school.
5. Be able to communicate with peers and adults, ideas, experiences, questions, clearly and fluently, using appropriate mathematical language.

For parents to:-

1. Be actively involved in their children's mathematical learning both in school and at home.
2. Understand and support the school's mathematics and home learning policy.

Planning, learning and teaching

Early Years

All children are given ample opportunity to develop their understanding of mathematics. Lessons in the Early Years aim to do this through varied activities that allow children to use, enjoy, explore, practise and talk confidently about mathematics. Mathematical experiences are provided on a daily basis, with an adult focused group once a week.

KS1 and KS2

The curriculum has been devised to include all the age-related programmes of study and the aims of the 2014 curriculum. The planning framework makes connections between curriculum objectives and groups them into useful teaching sequences.

Learning style

Our principle aim is to develop children's knowledge, skills and understanding in mathematics. We support a **mastery** approach which has number at its heart. Teaching stays in the required year group and supports the ideal of depth before breadth. Pupils work through schemes as a whole group. We do this through a daily lesson that has a high proportion of whole class and group teaching. We provide plenty of opportunities to build reasoning and problem-solving elements into the curriculum. During lessons, we encourage the children to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources such as number lines, number squares, numicon and small apparatus to support their work. Children use ICT where it will enhance their learning, as in modelling ideas and methods and for number skill practice. Wherever possible, we encourage children to use and apply their learning in everyday situations.

Organisation

To provide adequate time for developing mathematical skills each class teacher will usually provide a daily mathematical lesson. Links will also be made to mathematics within other subjects so pupils can develop and apply their mathematical skills.

At Buckland Primary School class teachers are responsible for their own class organisation and teaching style, with reference to the school's Teaching and Learning policy, and the guidelines of the National Curriculum. Children will be taught: as a class, in groups, in pairs or individually, in order to encourage collaborative learning and to support or extend where necessary. We use classroom assistants to support

some children in the classroom or elsewhere to ensure that work is matched to the needs of the individuals.

Planning

Planning is based on the 2014 National Curriculum. The White Rose Scheme of Learning is used to provide yearly overviews, small steps of progression with guidance and sample questions.

Short term planning is seen through the notebooks created by teachers and used during lessons, this includes models, resources, activities and objectives. These will be adapted to meet the needs of each class.

Assessment

Assessment will take place at three connected levels: short term, medium term and long term. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment.

Short term assessments will be an informal part of every lesson to check understanding and give the teacher information, which will help to adjust day to day lessons. White Rose termly assessments will be used to identify gaps in knowledge and used to help plan support and intervention strategies. End of year assessments will take place during the second half of the summer term, to assess and review pupils' progress and attainment. These will be made through SATs tests for pupils in Year 2 (along with teacher assessment) and Year 6. Teachers will also draw upon their class record of attainment against end of year expectations and supplementary notes and knowledge about their class to produce a summative record. Accurate information will then be reported to parents and the child's next teacher.

Children are encouraged to take part in both, self and peer assessment. This can be seen in the forms of: stars and arrows, traffic lights, smiley faces and comments linked to the success criteria or reasoning.

Differentiation

Including challenge for all.

This is incorporated into all mathematics lessons and is done in various ways, such as:

- Setting challenging age-related knowledge, reasoning and problem-solving tasks;
- Timely support and intervention; systematically and effectively checking pupils understanding throughout class and additional sessions;
- Ensuring that marking and constructive feedback is consistent and following the Marking Policy;
- Use of practical resources, including IT and structured apparatus;
- Questioning which is continually adapted by the teacher and support staff based on assessment for learning;
- Using teaching assistant support to support, develop and assess pupil progress;
- Children with SEND often work towards achieving specific targets. Teachers liaise with support staff and the SENCO to identify these targets.

Resources

Teachers are encouraged to use mathematical equipment to develop conceptual understanding of mathematical ideas. Each class is resourced with a large amount of equipment, with some resources allocated to particular year groups. Additional resources can be found centrally in our storage areas.

Parental Involvement

Staff work with and support parents to encourage a positive outlook towards mathematics. We promote the use of games and activities that develop number fluency and problem-solving skills and demonstrate the connections with real life. This is communicated through parent consultations; meet the teacher meetings, newsletters and workshops.

Home Learning

Key stage 1 will not have formal, weekly maths home learning. Instead there will be half termly learning log activities linked to maths topics. The children will be encouraged to use Numbots and Times Tables Rock Stars.

Lower key stage 2 will be set weekly maths home learning from the Topmarks daily 10 programme in order to prepare them for national multiplication checks at the end of year 4.

Upper key stage 2 will be set weekly maths home learning based on the learning they have completed each week. This may be in the form of reasoning, fluency or problem-solving questions.

Monitoring and review

Monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the SLT and mathematics subject leaders. The work of the subject leaders also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. The head teacher allocates regular management time to the mathematics subject leader so that s/he can review the provision of the subject across the school.