

*“Learning Today, Leading Tomorrow”*



**Bishops Down Primary & Nursery School**

[www.bishopsdownprimary.org](http://www.bishopsdownprimary.org)

# Mathematics Policy 2018 - 2019

Date Agreed: January 2019

Date for Review: January 2020

Reviewed and updated by: Abi Brooks Subject Lead

# *“Learning Today, Leading Tomorrow”*

## **Introduction**

Mathematics teaches children how to make sense of the world around them through developing their ability to use number, to calculate, to reason and to solve 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. (National Curriculum 2014)

## **Aims**

- To offer the children a balanced mathematics curriculum based on the National Curriculum objectives.
- To present maths as a challenging, exciting, creative and relevant subject and in so doing, promote a positive and confident attitude.
- To ensure that all children achieve a high standard in mathematics.

## **School Staff**

- To promote a confident, positive attitude towards the learning and use of mathematics making it an enjoyable experience.
- To promote confidence and competence with numbers and the number system.
- Encourage pupils by believing that every child, with perseverance, can be good at mathematics through promoting a Growth Mindset.
- To promote the ability to solve problems through connecting ideas, decision-making and applying their mathematical skills in a range of contexts, including other subjects.
- To promote mathematical reasoning by following a line of enquiry, developing an argument and making justifications using mathematical language.
- To promote a practical understanding of the ways in which information is gathered, presented and used.
- To promote the exploration of features of shape and space and develop measuring skills in a range of contexts.
- To understand the importance of mathematics in everyday use, especially in relation to essential life skills, such as telling the time and understanding money.

## **Children**

- To develop an enjoyment of learning through practical activity, investigation, exploration, mental exertion and discussion.
- To develop confidence and competence with numbers and the number system.
- To develop the ability to solve problems through connecting ideas, decision-making and applying their mathematical skills in a range of contexts, including other subjects.
- To develop the ability to reason mathematically by following a line of enquiry, developing an argument and making justifications using mathematical language.
- To develop a practical understanding of the ways in which information is gathered and presented
- To explore features of shape and space, and develop measuring skills in a range of contexts.
- To understand the importance of Mathematics in everyday life, especially in relation to essential life skills such as telling the time and handling money.
- To develop positive attitudes towards mathematics by developing independence, persistence and co-operation skills and striving to keep a Growth Mindset.

## ***“Learning Today, Leading Tomorrow”***

### **Parents and Carers**

- To be understanding and supportive of our aims in learning and teaching mathematics.
- To attend and contribute to parent consultation meetings.
- To support their children with mathematics homework activities.
- To support their children learning their number bonds and times tables off by heart.
- To praise their children for the good things that they do in mathematics.
- To communicate and work with the school whenever further support is needed to develop their children’s mathematical skills and understanding.
- To take opportunities to make mathematics part of children’s everyday lives.

### **Governors**

To appoint a designated link governor who will oversee the following:

- The school’s systems for planning work, supporting staff and monitoring progress
- The allocation, use and adequacy of resources
- How the standards of achievement are changing over time
- Visit the school and talk to pupils about their experiences of mathematics
- Promote and support the positive involvement of parents in mathematics
- Attend training and other events relating to the mathematics curriculum
- Report jointly with the Subject Leader, to the governing body with recommendations, if appropriate, once a year
- To be understanding and supportive of our aims in the learning and teaching of Mathematics and to review this policy annually.

### **The aims of the 2014 National Curriculum are for our pupils to:**

- Become fluent in the fundamentals of mathematics through varied and frequent practice with complexity increasing over time.
- Develop conceptual understanding and ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically; follow a line of enquiry, conjecture relationships and generalisations.
- Develop an argument, justification and proof by using mathematical language.
- Problem solve by applying knowledge to a variety of routine and non-routine problems. Breaking down problems into simpler steps and persevering in answering.

### **Foundation Stage Curriculum**

- Our Foundation Stage teachers use the Early Years Foundation Stage Curriculum to support their teaching of mathematics in the Foundation Stage.
- The children have the opportunity to talk and communicate in a widening range of situations and to practise and extend their range of vocabulary and mathematical skills.
- The children explore, enjoy, learn about, and use mathematics in a range of personalised situations.
- Mathematics is planned on a weekly basis and assessed using the criteria from the Early Learning Goals.

### **Key Stage 1 and 2 Curriculum**

- The teachers in Key Stage 1 and Key Stage 2 follow the White Rose Mathematics scheme to support their planning and delivery of mathematics teaching. It is aligned with the National Curriculum 2014 and is based on the principle of mastery.
- Assessment of mastery within mathematics will be supported by White Rose Maths end of topic assessment documents for each year group and tracked by termly progress assessments and teacher judgements.

## ***“Learning Today, Leading Tomorrow”***

- Teaching and learning is differentiated to best match the needs of the class and the individuals within it using Concrete, Pictorial and Abstract representations.
- If the needs of the children are best met following an alternative plan, which deviates from the National Curriculum 2014, then the class teacher and the Phase Leader discuss this and decide on a way forward.

### **Planning formats**

- The School uses the White Rose Maths Scheme in Key Stage 1 and 2 for long and medium term planning and this informs our teachers’ short term planning.
- The short term planning is done weekly, listing the specific learning objectives that are to be covered in each year group for each lesson that week.

### **Questioning**

- Teachers use questioning throughout their lessons to assess children’s understanding and encourage them to reason about mathematical questions.
  - What is the same? What is different?
  - Which is the odd one out?
  - How do you know? Convince me?
  - True or false?
  - What is the difficult point? Why?
  - Here is the answer. What is the question?
  - What happens when we change....?
  - Can you see a pattern?
  - What strategies could we use to answer this calculation? Which would be the best?
  - Why do you think that?

### **Calculation Policy**

- Please refer to our Calculation Policy which can be found on our website in the Curriculum/Maths area.

### **Resources**

- The use of Mathematics resources is integral to the concrete – pictorial – abstract approach and thus planned into our learning and teaching.
- We have a wide variety of good quality equipment and resources, both tangible and ICT based, to support our learning and teaching.
- Standard resources, such as number lines, multi-link cubes, dienes, hundred squares, shapes, etc. are located within individual classrooms.
- Resources within individual classes are accessible to all pupils who should be encouraged to be responsible for their use.
- Further resources are located in the Mathematics cupboard.
- Each year group in the school has access to Numicon resources relevant to their class groups. The Numicon resources are tangible resources, which are used for individual interventions; intervention groups or in-class focus groups in all year groups, but focused particularly in Key Stage 1 and Foundation Stage.

## ***“Learning Today, Leading Tomorrow”***

### **Homework (please refer to the School’s Homework Policy)**

- Mathematics homework is set for children in Years 1 -6 in the form of Big Maths Beat That!
- Subsequent homework maybe set at the discretion of the class teacher where it is felt the child could benefit from more practise and consolidate their skills and knowledge.

### **Parents and Carers**

- The School aims to involve parents/carers in their children’s learning as much as possible and to inform them regularly of their child’s progress in mathematics.
- Parents/carers have the opportunity to meet with child’s class teacher at least twice a year at parent consultation meetings and receive written reports during the year.
- Parents/carers are encouraged to speak to their child’s teacher at any point during the year, either informally or by making a specific appointment to discuss anything to further support them at home.
- Information about their child’s standards, achievements and future targets in mathematics are shared with parents/carers at these times and also ways that parents/carers may be able to assist with their child’s learning.
- School also provides a number of opportunities for parents/carers to learn about what their child is learning and the way their child is being taught through parent evenings.
- The Year 6 teachers annually hold a SATs parents’ evening to inform and discuss the mathematics papers in the SATs tests.

### **Subject Leader**

- The role of the Subject Leader is to provide professional leadership and management in mathematics in order to secure high quality teaching, effective use of resources and high standards of learning and achievement for all pupils.
- They will achieve this by affecting the following key areas: strategic direction and development; learning and teaching (including planning and marking and presentation); leading and managing staff; and efficient and effective deployment of staff and resources.
- The Subject Leader will train and coach staff on mathematical pedagogy within the school and keep up to date with developments from a county and national level.
- The Subject Leader has regular discussions with the Head Teacher and other senior leaders about learning and teaching in mathematics and provides data and a subject overview of the strengths and weaknesses of mathematics within Bishops Down Primary School on a termly basis.
- During the academic year the Subject Leader has specific allocated time for subject self-evaluation activities.