



St Bartholomew's C of E Primary **Mathematics Policy**

Our Christian Vision

Believe Achieve Respect Together Succeed

B – We **believe** we will flourish in God's family.

A – We know that everyone in St Bart's can **achieve**.

R – We **respect** everyone in our family.

T – **Together** we support and help each other.

S – As part of God's family we support everybody to **succeed**.

Safeguarding

St Bartholomew's C of E Primary School is committed to safeguarding and promoting the welfare of its pupils. We believe all staff and visitors have an important and unique role to play in the protection of children.

In this respect, our aims are:

- To provide a safe and secure environment, which values education and believes in the abilities and potential of all children and young people
- To bring the educational attainments of our children and young people who are looked after nearer to those of their peers if there is a gap

Our mathematical intent:

At St Bartholomew's C of E Primary, we follow the National Curriculum, in ensuring all pupils become:

- Fluent in the fundamentals of mathematics
- Able to reason mathematically
- Able to solve problems by applying their mathematical knowledge

We offer to support and challenge children appropriately, so that they fulfil all curriculum requirements by the time that they have finished their primary education.

We want all children to be prepared for the next step in their academic journey, as well as instilling a love of mathematics within all pupils.

We aim to equip children with all of the essential life skills by the time they leave us, including telling the time, paying for items with money, designing and measuring objects and many more. We ensure that the love of maths that we foster within children equips them for a range of jobs they may want to one day start, all of which would require some level of mathematics to be successful in. We understand the complexities of mathematics in secondary school and try to equip our pupils appropriately for this next stage in their education.

We ensure that our diverse mix of children are submerged into a vocabulary rich curriculum and that all mathematical terms and words are understood and applied.

Finally, we want children to love maths and to look forward to their lessons and see the wider world benefit of the subject.

How mathematics is implemented in our school:

The essence of our maths curriculum is based around a Concrete / Pictorial / Abstract approach.

Concrete: Children use a wide range of practical apparatus to support their maths learning. This varies across school, but includes the use of counters, base ten, beadstrings, numicon, place value counters and various other manipulatives.

Pictorial: Children use jottings and drawings to help them establish a deep and thorough understanding of numbers and mathematical concepts.

Abstract: Children have the knowledge and understanding underpinning efficient methods to work out calculations and more complex problems. The use of this CPA approach ensures learning is engaging to all groups of pupils.

Class teachers are highly encouraged to provide children with various examples of varied fluency. This means that children are familiar with lots of different ways of tackling mathematical problems and can choose an appropriate method. This is given to the children in practical and pictorial formats to deepen their understanding.

At St Bartholomew's, children are actively encouraged to collaborate with others to help them succeed with mathematical problems. In our lessons, you would see lots of group work and partner discussions. This is one way that teachers can formatively assess pupils. Formative assessment is at the heart of all that we do within school –



when used correctly, it establishes future plans and lessons to ensure children grasp core elements of the mathematics curriculum.

Children in school are very proud of their maths work, and take great pride in their excellent presentation. Children also have a lot of ownership of their work, including self marking their work where appropriate, although this is also checked by a teacher.

Although we strive for all children to grasp all mathematical concepts, we understand that some pupils require some additional support. Teachers plan for differentiation by using a range of enabling and extending questions. This means that all children can access work at their level. Sometimes, work needs to be matched closer to certain individuals, but ensures that children are still exposed to the high quality mathematical teaching in lessons. Where children have not fully understood what has been taught, same day interventions are used to identify and reduce any learning gaps.

Planning

School planning is adapted from the White Rose Maths Scheme. This framework sets about the long, medium and short term goals in learning and provides structure to the order in which mathematical concepts are taught. Staff use this structure and adapt it to their own individual needs of their pupils. Teachers have the flexibility to use resources that they feel will make children progress correctly through their maths syllabus. At St Bartholomew's, we trust teachers judgements and ensure their planning is for them to set out and structure how they see fit, whilst being mindful of their children.

Early years

Our early year's colleagues also teach from the White Rose Maths scheme. All children are taught this in classes, which supports their development towards the Early Learning Goals. Maths is also a central part of their provision and is very visible in the different areas. Our key aim in the EYFS is to give children a solid grounding in their mathematical journeys and ensure they develop a strong understanding of numbers. We also want to instil a love of mathematics into children at this young age, so that they go on to enjoy mathematical lessons throughout school.

Times tables

The National Curriculum (2014) sets out which times tables should be learned at different stages within primary schools. They state that children should learn the following:

Year 2: 2x, 5x, 10x

Year 3: 3x, 4x, 8x

Year 4: 6x, 7x, 9x, 11x, 12x

Year 5: All x and ÷ facts (12x12)

Year 6: All x and ÷ facts (12x12) and related language/symbols e.g. % and square root

As a school, we understand the need for children to learn their times tables, to support their learning in other mathematical areas. Children in year 2 upwards have access to Timetable Rockstars, which they use in class and at home. Timetabled slots allow children time to practise their times tables weekly. The maths team also set up regular challenges for children to complete, to raise the profile further. This app allows children the chance to earn coins, which can then be used to purchase accessories for their avatar. It is greatly loved by the children and allows teachers to see where targeted support is needed.

Times tables are also taught and practised during other timetabled slots, such as in morning work in some classes in school. In KS2, children have books that they can practise in. Lots of our homework focuses on times tables too.

Inclusion, including SEND and EAL

All pupils are taught in a mixed attainment class and children are grouped effectively to support their learning. Where appropriate, pupils are taught from the correct year groups curriculum. However, we understand that some pupils, especially those with high level SEND or pupils that have English as an additional language may require some extra support. At St Bart's, we have a clear progression document that allows class teachers to scale back learning from their year group to an appropriate age range. This is split into objectives and can be used to generate steps leading upwards in the maths curriculum. This forms differentiated work for pupils, so that tasks match their ability. Although we use practical apparatus for all children, we understand that pupils who are EAL or with SEND may require more practical work to allow them to grasp key concepts.

Pupils working significantly below where they should be are tracked using BSquared assessments. These allow teachers to track their needs in small and manageable steps, enabling them to make appropriate progress. Staff are also used flexibly in classrooms to support all identified groups. This means that SEND and EAL pupils access



group work facilitated by a mixture of their teacher, teaching assistants and some independent tasks. Support staff are also used to provide same day interventions to pupils who require extra support.

Interventions

We strongly believe that quality first teaching is the key to children's mathematical success at St Bart's, but we are also realistic and understand that sometimes, pupils need to study a concept for longer, or in a bit more detail. Across school, support staff are used to provide interventions. These are planned in collaboration with class teachers, and may be used as a same day intervention, where learning gaps are identified and filled, or an element of pre-teaching so that children are taught key vocabulary and concepts before a lesson to allow them to access some of the new content. In EYFS, interventions are implemented into areas of provision based on prior knowledge and understanding.

Homework

Children across school (Year 1 upwards) are provided with 1 piece of homework per week. This is generally a mixture of times table questions, or work they have covered in school and can repeat at home to embed learning further. Class teachers plan and resource homework, appropriate to the level and needs of their pupils. Work is appropriately challenging, but also something they can do at home on their own without the need for any resources.

Presentation expectations

Children in KS1 AND KS2 use books with squared paper inside to support their presentation further.

The following expectations are used across school to ensure a consistent approach to how work is presented:

- One number per square
- Short date and aim/title underlined with a ruler
- Maths pages folded and work is completed down one side (where appropriate full pages may be used)
- Worksheets are permitted, but only if essential to the learning – if children can write their own work into books, then they should.
- Green pen to self mark
- Use of rulers for drawing lines / graphs etc.

In our EYFS, there is a strong emphasis on correct number formation. Nursery and Reception prepare children to be able to follow the correct presentation expectations in KS1.

Resource and resource management

Maths resources are stored in various ways across school. The school has purchased a lot of shared resources, which are stored in the year 4/5 area upstairs. This area has a vast range of resources that class teachers can borrow and return daily. These resources are audited and monitored appropriately by subject leaders. There are other resources that the school has purchased that are kept in classes, as they are used frequently. Classes have their own store of age appropriate resources, such as place value counters, base ten, ten frames, etc. As a school, we have spent a lot of money on resources and have high expectations for how the children use and look after them.

What is the impact?

Assessment

Pupils in EYFS are tracked using the monthly bands in the 'EYFS Development Matters framework'. Pupils in years 1 – 6 use assessment trackers that are stuck in the front of maths books. These are a minimum expectation and link to the curriculum objectives of the relevant year group. These are dated when a child has achieved each small step and provide teachers with direction for future planning. As mentioned before, if children are working significantly below their age related expectations, they are assessed using BSquared.

The White Rose Maths scheme also provides additional tests that can be used to test which knowledge has been learned and retained. Children are tested at the end of each block of learning, as well as at the end of each term, based on the content they have learned. These support teachers future plans of which areas can be covered during consolidation weeks. Both testing and assessment sheets are used in collaboration with teachers judgements to provide children with an assessment level, which we input and report on OTRACK. These allows children's progress to be tracked and monitored throughout school.

At St Bartholomew's, we also use data from statutory tests, including the Reception Baseline, SATs and the year 4 times table check to formulate actions to best support our pupils.

Monitoring

The senior leadership team and maths leaders are involved in the monitoring of mathematics across school. This involves a yearly lesson observation, as well as more informal learning walks and visits to classrooms. During these visit and observations, pupils are spoken to and maths work books are looked at. This is then generated into a report which helps identify strengths in our mathematics teachers, as well as actions for the development.



Roles and responsibilities:

Subject leaders:

- Ensure curriculum is cohesive and coherent.
- Ensure policies are created and adhered to.
- Support teachers in planning and teaching of maths.
- Lead by example in the way they teach mathematics.
- Prepare, organise and lead training.
- Support SLT in the monitoring of mathematics.
- Attend and disseminate training and updates about maths teaching and learning.
- Have an understanding of how assessment feeds into future actions.
- Be accountable for resources and resource management in school.

Teachers:

- To plan effectively to provide opportunities for pupils to become fluent in mathematics, reason and problem solve.
- To deliver a daily maths lesson which is engaging for all pupils.
- To differentiate to support a wide range of abilities appropriately.
- To assess pupils effectively to understand pupils next steps.
- To inform parents of children's strengths and areas for development.
- Ensure effective teaching and learning.

Pupils:

- Try their best in maths and develop their own confidence in the subject.
- Be engaged in all their lessons.
- Behave appropriately to support their own learning.
- To complete work to an appropriate standard.
- To ask for help when needed.

Parents:

- To support the learning of maths by taking an interest in their child's progress.
- To provide encouragement to support with any maths homework they receive.
- To sustain good relationships with the class teacher to improve educational outcomes for pupils.

Reviewed: Summer 2021

Review date: Summer 2023

Head Teacher: _____

Chair of Governors _____