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RAF BENSON COMMUNITY PRIMARY SCHOOL

POLICY DOCUMENT

SUBJECT:

Math Policy

Signed: Signed on original	Date: September 2023
Headteacher	
Policy has been adopted/reviewed by Governing Body:	
Signed: Signed on original	Date: October 2023
Chair of Governors	

INTENT

At RAF Benson Community Primary School we believe that Maths is an exciting and important subject that is best developed through a 'practice to practical' approach. At our school we aim to first engage children's mathematical thinking by using talk to explore models and images, before developing efficient procedural methods and then finally applying and deepening their conceptual understanding through hands-on practical activities.

Our purpose is for children to have confidence and fluency in maths and have a secure conceptual understanding so that they can independently problem solve, resulting higher outcomes in relation to age related expectations.

It is our belief that our pupils should:

- **become fluent in the fundamentals of mathematics,** so that they:
  - have a well-developed sense of number values
  - know by heart key number facts, e.g. times-tables and related division facts, number bonds – in line with the latest programmes of study
  - apply knowledge of the above to work out connected facts
- **reason mathematically,** so that they:
  - are able to follow a line of enquiry
  - provide generalisations and proof of findings around their investigations
  - are able to justify their thinking, e.g. the reasons why a particular calculation strategy is the most efficient
- **solve problems by applying their understanding of mathematics,** so that they:
  - encounter a variety of both routine and non-routine problems
  - are able to select specific mathematics skills and/or operations
  - persevere with a line of enquiry, breaking down increasingly complex problems into a series of smaller steps

IMPLEMENTATION

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

- Number
  - place value
  - addition and subtraction
  - multiplication and division
  - fractions (including decimals and percentages)
- Measurement
- Geometry
  - properties of shape
  - position and direction (except Year 3)
- Statistics (Years 2-6)
- Ratio (Year 6)
- Algebra (Year 6, although the foundations will be taught from Key Stage 1)

Our school is committed to fostering positive attitudes towards mathematics and this is reflected in the behaviour and conduct of our own staff. We are also committed to ensuring that all pupils

develop deep conceptual understanding across the areas listed above, and in line with their age group. This will be through a range of teaching styles and exposure to models and images in line with our school calculation policy and the White Rose scheme. Teachers will actively diagnose and address perceived 'gaps' in understanding through the use of a range of s formative assessment strategies and the analysis of summative assessment data. It is our intent that children will have opportunities to make connections within their learning, through the provision of regular and stimulating cross-curricular enrichment.

Organisation

In order to ensure the children at RAF Benson Community School get the best mathematical education we can offer, we will ensure that:

- Maths is taught daily in all classes each morning, with times tables being taught separately in Key Stage 2.
- Maths is planned using White Rose as a guide to fulfil the National Curriculum requirements with the expectation that other resources are used to enhance learning.
- It is expected that maths plans are clearly adapted for children who require more support or challenge and those with Special Educational Needs or Disabilities (SEND). Planning is annotated throughout the week with comments regarding children's learning and adaptations to the learning journey. Planning is submitted electronically at the start of the week and is monitored as part of the scrutiny process.
- Pupils in each class have easy access to a range of manipulatives in 'math baskets', which they can use to support and enhance their learning. In addition to that, each class has a class tool kit of essential resources and further school resources are stored centrally to be used when required.
- Classrooms have a working wall that supports, celebrates and challenges mathematical thinking. These have consistent features across the school, as outlined in the Staff Handbook.
- Children are assessed six times a year and the data is analysed by class teachers to identify gaps and further areas for development. Data is also scrutinised by the maths subject leader at SLT meetings and at governor meetings.

Teaching Styles and Strategies

As part of our strategy to raise pupil attainment, this school uses the White Rose Scheme of Learning as a basis for planning teaching and to fulfil the requirements of the National Curriculum for Mathematics. From the White Rose 'Small Steps' document, daily lesson plans are developed. This ensures coverage, continuity and progression throughout the school, as well as the development of fluency, reasoning and problem-solving skills for all children.

A range of styles of teaching are necessary for the teaching of Mathematics. Methods for calculation are agreed as a staff to ensure continuity throughout the school, are in line with the methods used by White Rose and are clearly shown in our school Calculation Policy.

Our teaching across the school will include:

- clear teacher expositions
- high-quality modelling
- adaptive teaching to meet the needs of all children, using scaffolding, adult support and/or challenges
- use of concrete, pictorial and/or abstract representations in line with our calculation policy
- use of appropriate manipulatives to support and engage children
- opportunities for children to engage with practical activities
- time for children to consolidate and practice fundamental skills, developing fluency
- development of conceptual understanding through problem solving and investigation work
- opportunities to recap previous learning through fast-paced CLIC starters
- the committing to memory and recall of a range of mathematical facts
- independent and collaborative learning through class, paired, group or individual work
- reflection of children's learning and target setting

Resources

Each class across the school has 'Maths Baskets' on their tables, which contain a range of age-appropriate resources to support children's learning. Children are shown how to use these resources through teacher modelling. These resources may include (but are not limited to):

- Number squares
- Times table grids
- Number lines
- Bead strings
- Numicon
- Diennes
- Fraction walls
- Coins
- Dice
- Counters
- Multi-link
- Cuisennairre

Children in all classes have easy access to these resources to support their learning and are encouraged to use these as and when they need them. Other specific resources e.g scales, 3D shapes etc are held in classroom storage units or a central storage area identified in the Staff Handbook.

Early Years Foundation Stage (EYFS)

As part of the EYFS curriculum, we relate the mathematical aspects of the children's work to the objectives set out in the Development Matters Statements, which underpin the curriculum planning for children aged three to five. We give all the children ample opportunity to develop a strong understanding of number, so that they can count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. Children also develop their knowledge of measurement, pattern, shape and space through child initiated, teacher-initiated and teacher-led activities. They have frequent and varied opportunities to build on and apply their mathematical learning, using manipulatives and role-play that allow them to enjoy, explore, practise and talk confidently about mathematics.

Computing
Opportunities for using computing to enhance learning are taken where appropriate. These include regular use of the class Interactive Whiteboards to support learning, as well as access to online learning platforms such as Mathletics, Times Table Rockstars and PurpleMash to provide stimulation, consolidation and support.

Equal Opportunities
The teaching of mathematics will be in accordance with our Equal Opportunities policy. We aim to provide equal access to mathematics for those children with SEND and those pupils who are very able and require extension activities. This is done through small group work, adapted learning activities, scaffolding, the use of resources and adult support.

SEND
The Inclusion team in school liaises with the MSL regarding appropriate interventions to support gaps in mathematical learning and to ensure that TAs receive training to allow the interventions / support to be highly effective.

Interventions such as Sandwell Maths Assessments are used to support the closing the gap in these areas.

Children who are deemed most able will have adapted learning activities to broaden and deepen their knowledge through open ended challenges and extensions.

Assessment
Children's work will be marked according to our school Marking and Feedback Policy and their performance is continually assessed in accordance with the National Curriculum by the class teacher to inform future planning.

In Key stage 1 and 2, we assess termly in accordance with the assessment policy to measure progress against the National Curriculum learning objectives for each year group.

In the EYFS, termly assessments are recorded on Insight throughout the year and on individual Foundation Stage Child Profiles at the end of the academic year.

Standard Assessment Test (SAT) results are reported to parents and the Local Authority (LA) as required by law.

Staff hold regular parent meetings throughout the year and written annual reports are presented to parents in the summer term.

Monitoring
It is the policy of the school to monitor the standards of children’s work and the quality of learning and teaching in mathematics. We endeavour to ensure that this is a constructive experience and is carried out in accordance with the school’s monitoring policy. Feedback is given to staff in a timely and professional manner when appropriate. Additional monitoring may take place from

external visitors and/or members of SLT when necessary and where possible teachers are notified of this in advance.

The Role of the Mathematics Subject Leader

The MSL will endeavour to support the subject by:

- Reporting to SLT and governors.
- Monitoring and regularly evaluating the School Development Plan (SDP)
- Keeping up with subject developments and opportunities
- Identifying and providing CPD for staff
- Highlighting the subject through events for parents, clubs for children and rewards and incentives
- Attending courses and other CPD
- Auditing and ordering resources

The Role of the Mathematics Governor

A named member of the school's governing body is updated regularly in a meeting with the MSL to enable them to oversee the learning and teaching of maths and report back to the full governing body.

Evaluation and Review

Maths provision and impact on learners is evaluated and reviewed regularly via the SDP and aligned maths action plans. As part of this process, the MSL, alongside other senior leaders, will triangulate evidence from a range of monitoring activities (e.g. planning/book scrutinies, learning walks/observations and pupil voice) to determine the next stages of development. This information is shared with the SLT and the schools governing body.

The CPD)needs of our staff, including the MSL and Teaching Assistants, are regularly reviewed and planned for. The expectation is that staff attending CPD will be given planned opportunities to cascade key messages or share through peer coaching sessions.