Offenham CE First School

Growing deep roots. Producing good fruit

Mathematics Policy

Mathematics Policy Introduction

Mathematics teaches children how to make sense of the world around them through developing their ability to use number, calculate, reason and solve problems. It helps children to understand relationships and patterns in both number and space in their everyday lives. The Mathematics curriculum should be bold, provide breadth and balance and be relevant and adapted to suit the needs of all children in the modern world. It should be flexible, motivating all pupils, thus encouraging success at all levels.

Vision

Our school vision, summed up in the following three words "Love, transformation and growth" plays a significant role in our collective attitude to our curriculum. We offer all pupils equal access to, and a love of learning, so that all can be transformed, flourish and grow in every area of the curriculum including within Mathematics.

Aims

General

- To ensure all staff, children, parents/carers and Governors are aware of the aims for learning and teaching Mathematics at Offenham CE First School and that these are consistently applied.

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;
- 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 such as Science;
- 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; and
- 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 such as Science;
- 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; and

- To foster positive attitudes towards Mathematics by developing pupils confidence, independence, persistence and co-operation skills.

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 (please refer to Homework Policy) including the importance of 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 School whenever further support is needed to develop their children's mathematical skills and understanding.

Implementation of the Mathematics Policy

1. EYFS

- Our EYFS teachers use the Early Years Foundation Stage Framework 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, using 'Master the curriculum' and White Rose Maths, and assessed using the criteria from the new EYFS Framework
- Mathematics is taught both as a discrete subject and within the whole Early Years Curriculum to give children opportunities to use their mathematical skills in real life situations.
- Morning maths is completed by children in reception after February half term to embed previous learning and to prepare them for year one.
- Mental maths tests are completed weekly after Easter to enable parental engagement in maths and support the children's quick recall of the basic number facts and operations.

2. The National Curriculum for Mathematics (Programmes of Study)

- Our KS1 and KS2 teachers use the National Curriculum 2014 and incorporate White Rose Maths principles within their teaching. This enables progress throughout the school and embed problem solving skills.
- The short term planning is done weekly, listing the specific learning objectives that are to be covered in each year group class for each lesson that week.
- Teaching and learning is adapted to best match the needs of the class and the individuals within it.

3. KS1 organisation

- Children in KS1 are taught Mathematics for approximately 1 hour daily in mixed ability class groups.
- Fluent in 5 is completed at the start of each lesson to embed previous learning.
- 'Morning Maths' is a where children from YR-5 practise maths skills when they arrive in the morning. This is used for revision and children practise skills they have learned previously. Reception children will participate with this morning format from the summer term.
- Each week in celebration assembly, a child or children from across the school are awarded golden apples for exceptional effort or achievement in maths lessons and 'Mathematician of the Month' award
- Mental Maths tests are completed by children in YR-2. Year two children learn their 2, 5 and 10 times tables, to ensure they are prepared for the Times Tables Test in year four. Year one children will practice doubles, halves and other quick recall calculations. Reception will start in the summer term and will complete simple calculations.

4. KS2 organisation

- Children in Years 3, 4 and 5 are taught Mathematics in mixed ability class groups and are taught for approximately 1 hour daily.
- 'Morning Maths' – as per KS1
- Fluent in 5 – as per KS1
- At the beginning of each lesson children are introduced to the objective to be taught that day.

- Each week all children have the opportunity to undertake mental maths activities including the practice and testing of times tables.
- Each child takes part in tailored activities and is rewarded through the school reward system of house points.
- Assembly awards – as per KS1

5. Planning formats

- The School uses the National Curriculum for long and medium term planning and this informs our teachers' weekly short term planning.
- Across the school, weekly planning is based upon White Rose Maths and is centered around each year group's objectives from the school assessment tracker which details the expectations set within the National Curriculum 2014.

6. Calculation Policy

- Our teachers are asked to follow the school's Calculation Pathways Policy when teaching calculation.
- Our Calculation Policy explains the key written methods that need to be taught in each year group, to support the planning, delivery and assessment of learning and teaching in Mathematics and to ensure consistency and progression across the School.
- The calculation policy is shared with parents during the annual 'Welcome to year…' which teachers host at the start of each academic year. This informs parents of the expectations of that year. They are all given a copy of the calculation policy.

7. Cross curricular

- Opportunities are used to draw mathematical experiences out of a range of activities in other subjects, such as in PE, Science and other subjects studied to enable children to apply and use Mathematics in both real life and academic contexts.

8. Challenge

- In each lesson, every child has the opportunity to complete a 'Deepen it' problem solving task that is directly linked with the learning. It is important to us, at Offenham CE First School, that all children have the opportunity to complete this.

9. Resources

- We have a wide variety of good quality equipment and resources, both tangible and ICT based, to support our learning and teaching.
- These resources are used by our teachers and children in a number of ways including:
    a) Demonstrating or modeling an idea, an operation or method of calculation, e.g.: a number line; place value cards; money or coins; measuring equipment for capacity, mass and length; bead strings; the interactive whiteboards and related software; 3D shapes and/or nets; Numicon and related resources and software; multilink cubes; clocks; protractors; calculators; dice; number and fractions' fans; individual whiteboards and pens; and 2D shapes and pattern blocks, amongst other things;
    b) Enabling children to use a calculation strategy or method that they couldn't do without help, by using any of the above or other resources as required; and
    c) Providing a context for the application and practice of calculation strategies and number skills.
- Standard resources, such as number lines, multi-link cubes, 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 (often larger items shared by the whole school) are located in a Mathematics Cupboard located in the corridor near the Preedy room.
- A range Teachers are encouraged to use the school playgrounds as an outdoor classroom when possible, for example, when teaching length, area or perimeter.

10. Homework

- Mathematics homework in Ks1 is in the format of Times Tables/Mental Maths practice.
- Homework provides opportunities for children to: practice and consolidate their skills and knowledge; develop and extend their techniques and strategies; and prepare for their future learning through out of class activities and homework.
- Homework activities in KS2 are set to cover the full range of areas taught in class; the tasks set compliment the area of Mathematics being taught that week. This can be in the format of a worksheet, task or online game.

11. Parents/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 a written report in the summer term.
- 'Walk in Wednesday' sessions are held half termly where parents are invited to look at their child's book with them and discuss their work.
  Parents/carers are encouraged to speak to their child's Mathematics teacher at any point during the year, either informally or by making a specific appointment.
- As mentioned previously, during the Autumn term 1, we are providing a yearly meeting for parents R-5 to inform them of the expected standards by the end of the year to ensure parents are aware of the National, and school, expectations.
- Information about their child's standards, achievements and future targets in Mathematics is shared with parents/carers at these times and also ways that parents/carers may be able to assist with their child's learning.
- Parents/carers are encouraged to support their children with homework.
- The subject leader provides all parents with a copy of the school calculation policy showing the pathways in addition, subtraction, multiplication and division and the ways in which their child is being taught the four main operations.
- The Reception teacher holds an annual 'Introduction to Maths' meeting at the start of the academic year to give the new parents an opportunity to explore how we teach maths at Offenham and how they can support their learning at home.
- The Year 2 the teacher and Headteacher annually hold a SATs Parent's evening to inform and discuss the SATs tests in Mathematics. The school also annually organises a Maths event for parents of children in both key stages, when ideas are shared for encouraging fun with Mathematics along with understanding of the ways it is taught.

12. 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 role of the Subject Leader is detailed further in the Subject Leader Job Profile.
- The Subject Leader has regular discussions with the Head Teacher and other senior leaders about learning and teaching in Mathematics and about their work as Subject Leader and an evaluation of the strengths and areas for development for the subject.
- The Subject Leader has specific allocated time for subject self-evaluation activities.
- As part of a plan to improve problem solving and reasoning across the school in mathematics, the subject leader, along with the Head Teacher, will evaluate how we can adapt the use of White Rose to ensure that our maths teaching meets the specific needs of our children. This is a website linked directly to the National curriculum, created by teachers using resources from the White Rose Maths Hub that are adapted for all abilities across the school. This aims to teach children to confidently use and apply and reason their understanding as well as problem solve more confidently.

The Mathematics Lesson: Good Practice

- The Learning and Teaching Policy identifies the aims, principles and strategies for promoting effective learning and teaching at Offenham CE First School. These apply to learning and teaching in Mathematics as well as every other curriculum subject area.
- Maths lessons from y1-5 are split into 4 sections.
  - **Fluent in 5** – embed previous learning
  - **Secure it A** – introduction to new learning
  - **Secure it B** – new learning at a more challenging level
  - **Deepen it** – mastery questions
  - All children, no matter their ability have access to this level of work so that there is not a predetermined ceiling for what each individual can achieve. It ensures all children are listening to mastery questions.
- KS2 Weekly times tables tests are undertaken as part of a weekly mental maths focused lesson.
- Ks1 mental maths – as mentioned previously.

- Morning maths to be completed regularly to refresh and embed previous skills taught.

Assessment, Record Keeping and Reporting (please refer to the School's Assessment and Teaching and Learning Policies)

- Children's standards and achievements in Mathematics are assessed in line with the School's Assessment Policy. Assessment in Mathematics for Years 1-5 includes:
    - On-going Assessment for Learning (AfL) practices within class and group sessions.
    - Marking of children's work; against the shared Learning objective and for accuracy of answer (for all written work) and diagnostically (regularly in line with School expectations) to consolidate or progress the child's Mathematical understanding.
    - If a child has had additional input during a lesson, staff use the Rapid Response stamper to make it clear that the child needed extra support in this area of learning.
    - At the end of each half term teachers are expected to make an overall assessment of pupil's achievements using the school's assessment tracker based on teacher assessment and results in NTS tests;
    - There are formal teacher assessments each half term against National Standard expectations for Mathematics and these are recorded within the School's electronic assessment system. Pupils are assessed as being at National Standard, above National Standard, below National Standard or well below National Standard. Pupils are also given a progress grade which can be either working below, working towards, working at expected or working at greater depth.
- Children's standards and achievements in Mathematics in the Foundation Stage are assessed in line with the School's Foundation Stage Policy. Assessment in Foundation Stage includes both on-going assessment and marking of children's work as noted above but at an age appropriate level. The Foundation Stage Profile is used to assess children throughout and at the end of the academic year.
- Assessments are used diagnostically by teachers to evaluate learning and inform teaching and by teachers and senior leaders within the Accountability Process to evaluate individual and groups of children's standards and achievements and provision and to inform future provision and school development.
- All children in Years 1-5 have Mathematics Targets both in terms of National Standards expectations and within on-going AFL and diagnostic marking practices. The class teachers, the Subject Leader and other Senior Leaders review progress against these targets regularly. This information is used by each of these to affect provision and potentially school development.
- Assessment information for Mathematics, both standards and achievements, are shared with parents/carers at Parent Consultation Meetings. Mathematics is reported on in detail in each child's School Report; which includes information about the next steps for learning in the subject.

Inclusion

- Inclusion is about every child having educational needs that are special and the School meeting these diverse needs in order to ensure the active participation and progress of all children in their learning.
- Successful inclusive provision at Offenham is seen as the responsibility of the whole school community, permeating all aspects of school life and applicable to all our pupils. It is in this way that we will turn the rhetoric into reality.
- Inclusive practice in Mathematics should enable all children to achieve their best possible standard; whatever their ability, and irrespective of gender, ethnic, social or cultural background, home language or any other aspect that could affect their participation in, or progress in their learning.

Monitoring and Review

- The Head teacher and Mathematics Subject Leader will monitor the effectiveness of this policy on a regular basis. The Head teacher and Mathematics Subject Leader will report to the governing body on the effectiveness of the policy at least annually and, if necessary, make recommendations for further improvements.

Subject Lead: Mrs Hollie Johnson
This policy was reviewed and agreed Autumn 2024 by staff and governors at Offenham CE First School.
To be reviewed Autumn 2025.