West Park
Church of England
Primary School

Curriculum Policy for Maths

‘Let your light shine’ Matthew 5

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West Park CE Primary School-Mathematics Policy 2024-2025

The Team 2024-2025

- Emma Sleight – Subject Leader KS1
- Imogen Murphy-Dunn – Subject Leader KS2
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- Paul Stanley Governor for Maths

Intention

Mathematics is vital; it is our key to making sense of the world around us. We strive to provide a mathematically stimulating environment where children are able to calculate, reason and solve problems both in number and in their everyday lives. We aim to build a mathematical learning culture where children are resilient and take risks in their learning.

- We believe that mathematics provides a means of communication which is powerful, concise and unambiguous
- We believe that Mathematics is fun!

During their time at this school children will be encouraged to see mathematics as both a written and spoken language. Teachers will support and guide children through the following important stages:

- Developing fluency, reasoning and problem solving through the use of concrete, pictorial and abstract.

Implementation

Aims

The national curriculum for mathematics aims to ensure that 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 simpler steps and persevering in seeking solutions.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not

sufficiently fluent with earlier material should consolidate their understanding, including through additional practise, before moving on.

School Curriculum

The programmes of study for mathematics are set out year-by-year for key stages 1 and 2. Schools are, however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, schools therefore have the flexibility to introduce content earlier or later than set out in the programme of study. In addition, schools can introduce key stage content during an earlier key stage, if appropriate. All schools are also required to set out their school curriculum for mathematics on a year-by-year basis and make this information available online. Examples of work are displayed for each year group in the Maths Area.

Calculation Policy

This policy looks at both mental and written procedures. It is important that children do not abandon jottings and mental methods once pencil and paper procedures are introduced. Therefore, children will always be encouraged to look at a calculation/problem and then decide which is the best method to choose; concrete, pictorial or abstract. Children are not expected to work through every stage at a set time; it is about working at the right level and using the methods appropriate for each child.

This policy is for guidance purposes only as our job is to find the most efficient method that the individual child can use with understanding. This may well mean that children do not experience all the methods illustrated and focus on one or two.

Schools have a choice in the way that they teach calculations.

The children will always be exposed to the concrete, pictorial and abstract way of working to solve a problem. However, they may progress more quickly through these stages to abstract once they are fluent in their concrete and pictorial understanding.

This is available on the school website.

Times Tables

Teaching of times tables is important. Children must have a conceptual understanding in order to apply the knowledge to problems. Teachers will teach children times tables through a range of fun, interactive activities to build confidence and understanding. In most year groups times tables is taught as one of the maths lessons each week.

Alongside this, we use Times Tables Rock Stars in order to further improve speed of tables recall and use in school. Each pupil has their own individual login and is able to practise both in school and at home. Pupils will be expected to use this as part of homework tasks throughout the year. Class teachers can set specific tables goals for them using this programme if it is required.

Testing of Tables

- Children may be tested on specific key tables in lessons but this is done in a supportive, non-threatening, environment BUT most importantly they need to be taught how to **learn and use** their times tables.

Adaptation

- The children generally work in mixed ability groupings.
- Tasks are adapted based on how the children are able to access the curriculum.

Lesson planning

- Plans are working documents that change according to the needs of the children.

- White Rose scheme of learning is followed and adapted as necessary.

- ISEE maths (Gareth Metcalfe) resources are used to support reasoning and problem solving.

Key features that must be included on all plans

- What are we learning?
- How will we get there?

Homework

Homework is set in line with the school's Homework Policy. Please see the homework policy for timings.

- Homework is set online on Class Dojo
- Homework will be a Numbots (Early Years & Year 1) and Times Table Rockstars (Year 2- Year 6)
- Homework is set weekly.
- Reference to the calculation policy on the school website should be made (if needed)

Classroom Equipment

- This will vary from year group to year group as this has to be age appropriate
- All resources MUST be easily accessible to all children so that they can make the important decisions regarding which equipment to use
- Equipment is regularly used by teachers to model its' application.

Digital Resources

White Rose Maths
This is the scheme we use for our planning. Resources can be found on the website to support learning.

Times Table Rock Stars
A resource used to support the teaching of times tables from Year 2 to Year 6.

Numbots
A resource used to support the teaching of number bonds and number recognition from Early Years to Year 2.

Maths CPD

- IMD and ES available for support during maths leadership time
- Staff meetings
- Training offered by the Maths Hub and WSCC will also be accessed and shared
- MITA meetings for LSAs.

Impact

Attainment targets

- By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study, (see National Curriculum).

End of unit assessments

- At West Park we use White Rose assessments (Years 1-5). Year 6 use previous SATs assessments.
- For Year 2 to Year 6, these occur at the end of each term and are used to inform teacher assessments and should test 'new learning' in a new context.
- In Year 1 the children are slowly introduced to these tests throughout the year and all children will have completed such assessment by the end of the summer term of Year 1.
- Year group teams work together to analyse all assessments completed to identify gaps in learning and provision and to ensure this is in place for the next half term of planning. This information is reflected in teacher's assessments of the children.

Statutory Assessments

- EYFS Baseline assessments
- KS1 National Curriculum Tests and teacher Assessments (Year 2)
- Multiplication Tables Check (Year 4)
- KS2 National Curriculum Tests (Year 6)

Data

All teachers are responsible for keeping accurate records of attainment and progress made in line with the school policy on recording data. See assessment policy.

Marking

Work should be marked in line with the school policy for marking. Live, in the lesson, verbal feedback is to be encouraged so that children are being supported and moving children on during the lesson rather than retrospective marking which has less impact.

Display

See school policy. We aim to inspire and challenge the children, supporting their learning through a working wall combined with celebrating achievement.

- All classrooms must have a display area for maths and a working wall
- Working walls should be referred to during the lesson and reflect current learning

Exercise books

- The size of the squares in the maths book should be chosen carefully; they should be ability appropriate
- Children should have experience of maths calculations on blank paper or in books without worrying about poor presentation.

Monitoring of Standards

Monitoring of maths across the whole school is completed by the maths Subject Leaders and Headteacher. Year leaders have the responsibility of monitoring their year group each term and reporting to the Subject Leader.

- 'Year in the life of'
- Lesson drop ins and learning walks including pupil voice
- Book looks
- Termly data tracking

Links to other policies:

- Calculation policy
- Assessment policy
- Display policy
- Inclusion policy
- Homework policy
- Marking and feedback policy