



West End Primary School

MATHEMATICS POLICY

September 2023

Introduction:

This policy statement outlines the purpose, nature and management of the mathematics taught and learnt at West End Primary School. The policy has been drawn up as a result of staff discussion and has the full agreement of the Governing Body. The implementation of this policy is the responsibility of all teaching staff and should be overseen and monitored by the subject leader and Headteacher.

The Nature of Mathematics:

Mathematics is a tool for everyday life. It is a whole network of concepts and relationships which provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas, and to tackle a range of practical tasks and real life problems. It also provides the materials and means for creating new imaginative worlds to explore.

At West End Primary School we aim to:

- promote enjoyment and enthusiasm for learning through practical activity, cross-curricular learning, exploration and discussion
- develop mathematical skills and knowledge and quick recall of basic facts in line with the National Curriculum Mathematics Programmes of Study
- promote confidence and competence with numbers and the number system
- develop the ability to think mathematically: solve problems through decision-making and reasoning in a range of contexts
- develop a practical understanding of the ways in which information is gathered and presented
- explore features of shape and space, and develop measuring skills in a range of contexts
- develop communication skills
- develop both independence and co-operation
- understand the importance of mathematics in everyday life and promote mathematical thinking as a life-skill.



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Teaching Mathematics:

Teaching time

To provide adequate time for developing maths skills, each teacher will provide a daily Maths lesson. This may vary in length but will usually last for 60 minutes in both Key Stage 1 and Key Stage 2. In the Foundation Stage, there is a daily teaching focus with mathematical opportunities provided through exploration and play. Links will also be made to mathematics within other subjects so pupils can develop and apply their mathematical skills. In KS1 and KS2 each class also has a 15 minute daily session focusing on fluency skills, time for Mathematics activities and to practise their times tables.

Class organisation

From Year 1, all pupils will have a dedicated daily mathematics lesson. Within these lessons, there will be a good balance between whole-class work, group teaching and individual practise. Independent groups will be based on ability, however, there will also be opportunities for groups to work in mixed abilities and friendship groups etc where appropriate.

Teaching strategies will be varied and will encourage a high level of interaction. Teachers place strong emphasis on the development of mental calculation skills. Children are asked to explain their methods and to check for reasonableness. Teachers will 'deepen' problems to promote 'talk' and help the children to articulate their way of tackling the problem. There is also strong emphasis on the development of mathematical vocabulary. Key words are displayed and teachers ensure that they model the correct use of mathematical words. Teachers value pupils' oral contributions and create an ethos in which all children feel they can contribute. Activities are planned to encourage the full and active participation of all pupils, and teachers differentiate tasks during the main part of the lesson in order to meet the needs of all abilities.

Out-of-class work and homework

The daily mathematics lessons will provide opportunities for children to practise and consolidate their skills and knowledge, to develop and extend their techniques and strategies, and to prepare for their future learning. Children will have a number based target that will be their homework.

Mathematics across the curriculum

Mathematics contributes too many subjects within the primary curriculum and opportunities will be sought to draw mathematical experience out of a wide range of activities. This will allow children to begin to use and apply mathematics in real contexts. These opportunities will be identified on the year group curriculum map, but other opportunities will be taken as and when they occur.



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School and Class Organisation:

At West End we have high expectation and hope that we can get as many children to age related expectations as possible in maths. Work will be pitched to allow all children to access the learning but will have no ceiling. Children are not grouped into ability groups but have work differentiated after marking the previous day's work. Once a child has got roughly 6 questions correct without support they will then move on in their learning. If they are working at age related expectations then they will be challenged further to deepen their knowledge.

- All pupils take part in the daily maths lesson by means of appropriate differentiation.
- Teachers plan lessons so that all pupils can be included and can make progress in the lesson.
- In oral work teachers plan a range of differentiated questions, with some targeted at specific pupils.
- Teachers also ask open questions that allow all children to take part. All children benefit from the emphasis on oral and mental work and participating in watching and listening to other children demonstrating and explaining their methods.
- Teachers use a wide range of visual resources to illuminate meaning.
- During whole class teaching, discreet help is given to particular children by teaching assistants.

Targets/Fluency

All children have a Maths fluency sheet stuck in the front of their Maths book. These have six steps, ranging from basic maths fluency skills typically learnt in Y1, up to step 6 which is Y6 level fluency. We have labelled them steps 1-6 rather than Years 1-6. Every day the children get 15 minutes to work on these targets. During this time, the teacher may choose for the class to work independently on their individual targets, or teach some of these fluency skills as a whole class / to a group. The idea is the children work through these targets and they are highlighted as the children complete them. We use three different colours throughout the year to show when the children have achieved the targets, orange for Autumn, green for Spring and yellow for Summer.

Resources

The central resource contains a range of mathematical equipment to be used across all age groups. All classes have a wide range of resources within their own classrooms.

The school aims to provide a mathematically stimulating environment:

- through displays that promote mathematical thinking and discussion
- through displays of pupils' work that celebrate achievement
- by providing a good range of resources for whole class or individual work to enable children to become confident in their use and understanding of the number system.



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The resources will be checked and updated (in consultation with the staff team) on a termly basis.

Information and Communication Technology

ICT will be used in various ways to support teaching and motivate children's learning. ICT will involve the computer, calculators, and audio-visual aids. They will however only be used in a daily mathematics lesson when it is the most efficient and effective way of meeting the lesson objectives. This might include the teacher using an interactive smart board to demonstrate to the whole class or groups; a small group of pupils using an appropriate piece of software that links in closely with the lesson; or pupils using calculators as a group or whole class activity.

Mathletics will be used throughout the school and all children can access this at home and in school. This will be a whole school focus and will be celebrated in assembly. We also use TTrackstars to learn times tables.

Assessment:

Assessment will take place during every lesson. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment.

Daily assessments will be an informal part of every lesson to check pupils' understanding and give you information, which will help you to adjust day-to-day lesson plans.

Assessment for learning is evident:

- orally through questioning
- by observation of children at work
- marking of children's work (see *marking policy*)
- through planned assessment activities linked to the key objectives

Termly assessments will take place every term and will assess some of the ideas linked to the key objectives that have been covered during the term. The outcomes will be recorded on a class assessment grid on the staff folders drive. This data will be transferred to the Lancashire tracking tool in Key Stage 2 and analysed by all staff in a staff meeting led by the Maths and Assessment subject leaders. These assessments will be moderated in school with all staff. A range of different evidence will be provided to inform teacher assessment including books, tests and teacher observations.

In the Foundation Stage assessment is carried out through ongoing observations. This forms part of the Early Years Profile which summarises each child's development and learning achievement at the end of the year.

Any child who is below age related expectations in maths will go on an IAM and these will be discussed termly with SLT. It may be that intervention needs to be put in place for that children to make accelerated progress.



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Leadership of Mathematics:

Role of the subject leader

- Teach demonstration lessons if appropriate.
- Ensure teachers are familiar with the Mathematics primary framework and help them to plan lessons.
- Lead by example in the way they teach in their own classroom.
- Prepare, organise and lead INSET, with the support of the Headteacher.
- Work co-operatively with the SENCO.
- Observe colleagues with a view to identifying the support they need.
- Attend termly training provided by LEA and other agencies.
- Report to the Headteacher (and the governors if appropriate) on the progress of mathematics within the school.

Monitoring and Evaluation

Monitoring and evaluation will be carried out by the:

- Headteacher
- Mathematics subject leader
- Mathematics governor
- Member of the LEA Inspection/Advisory team (on request)

This exercise will entail:

- classroom observation and feedback
- reviewing children's work and marking (by the Senior Management Team, mathematics subject leader and staff team on a termly basis)
- analysis of test data and papers
- monitoring of assessment and record-keeping

Reporting to Parents

Children's progress is reported to parents at parents evening and then at the end of every term. Parents will also be given targets every half term.

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