

THE WILLOWS PRIMARY SCHOOL



MATHS POLICY

Safeguarding Statement

The school is committed to safeguarding children and promoting the welfare of children and young people and expects all staff and volunteers to share this commitment.

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Date:	June 2024
Review Date:	June 2025

Supporting Maths at The Willows Primary School

The overall aim is that when children leave our school they:

- have a secure knowledge of number facts and a good understanding of the four operations;
- are able to use this knowledge and understanding to carry out calculations mentally and to apply general strategies when using one-digit and two-digit numbers and particular strategies to special cases involving bigger numbers;
- make use of diagrams and informal notes to help record steps and part answers when using mental methods that generate more information than can be kept in their heads;
- have an efficient, reliable, compact written method of calculation for each operation that children can apply with confidence when undertaking calculations that they cannot carry out mentally;

As a result of our curriculum pupils will be enabled to:

- develop mathematical communication, reasoning, problem solving skills and strategies
- make progress and achieve a high standard of numeracy
- use a wide range of mathematical vocabulary correctly and effectively
- have a positive attitude towards the subject across the curriculum
- apply skills with confidence and understanding in a wide range of contexts.

All teachers are expected to have a full working knowledge of the Mathematics Curriculum. This encompasses:

- numbers and the number system;
- calculations;
- solving problems and puzzles and mathematical reasoning;
- statistics;
- geometry (measure, shape and space).
- using mathematical vocabulary related to all of the above areas

Teachers utilise the guidance and expectations set out in the Primary Curriculum (2014) to inform and assist their long term, medium term and weekly planning. Teachers use the White Rose Maths Hub small steps to support and structure their planning and ensure coverage of all curriculum objectives. This ensures that concepts are developed sequentially and thus ensures continuity and progression from fluency to reasoning and problem solving throughout Key Stage 1 and Key Stage 2. The White Rose materials are supplemented using high quality materials from the National Centre for Excellence in the Teaching of Mathematics and the Department for Education.

Time and Organisation

The school ensures that there is a dedicated mathematics lesson every day. Lessons are flexible in structure in response to the area of mathematics being taught and the children's level of understanding, but will typically contain the following elements:

- **Mental Maths**

Whole class work to rehearse and refine mental maths skills will also include a specified counting focus which will usually be a specified times table. Children's fluency and speed of recall of essential times tables and related facts are tested in our weekly 99 Club. We want to improve every child's knowledge and recall of multiplication facts up to 12x12 whilst helping them to make the link to division and related number facts. All children engage in a weekly five-minute times tables challenge in order to make progress and earn their 99 club bands.

In addition, daily mental maths activities may be linked to the Learning Intentions for the whole lesson or may address a discrete area/topic which needs reinforcement. Throughout the course of the week, some of these mental activities will include the use of practical manipulatives.

Further opportunities are taken in this part of the lesson for spaced retrieval practice and children revisit prior learning or areas that are assessed as requiring further teaching focus.

- **Main teaching activity**

Teaching input with a focus on Learning Intentions and pupil activities completed as a whole class, collaboratively or independently. Guided groups will be used to reinforce previous learning, extend current learning or pre-teach new concepts. Children will be given the opportunity, when appropriate, to pick their own level of challenge and will be able to progress to more challenging tasks, or have greater support, at a rate appropriate to their needs. Once children are secure with a particular concept they will be able to broaden or deepening their understanding of the concept by applying the processes and skills to a range of problems. These problems will require them to reason, problem solve and apply what they have learnt. Sometimes problems will be 'real life' and other times they will require children to take a concrete concept and apply it to a more abstract situation. Children will be encouraged to develop their use of mathematical vocabulary throughout lessons, which they will then be able to use to explain their solutions.

- **Plenary**

Whole class work to assess learning against the Learning Intention to deal with any misconceptions or lack of understanding.

Special Needs and Classroom Support

Pupils who have difficulty in learning may need to work more slowly through the levels. Similarly, more able pupils will proceed more rapidly. Opportunities for reinforcement and enrichment are indicated in the teacher's plans.

Pupils' Record of Their Work

Pupils' independent, paired and group work can be recorded in a variety of ways relevant to the type and purpose of the activity. Pupils are encouraged to record methodically using appropriate mathematical vocabulary and units. Feedback on work in progress is essential to support learning and is in line with the school marking policy. Pupils are regularly encouraged to correct and improve their work based upon teacher's feedback. Pupils are also invited to evaluate their own learning.

Monitoring and Assessment

Pupils will be monitored both individually and in groups as part of a continual process of assessment. Six children are closely monitored throughout the year, using assessment grids

which are highlighted to track their progress across all areas of the mathematics curriculum. These children are then used as a benchmark, in order to provide termly assessments for every child in maths. Children are assessed as being either: emerging, developing, securing or exceeding the expected standard for their year group.

In accordance with statutory guidelines, at the end of KS1 and KS2, Y2 and Y6 pupils complete the Mathematics SATS (Statutory Attainment Tests). The results of the Y6 tests are communicated to parents as part of the end of year annual report.

Pupil progress in Mathematics is reported to parents in the end of year annual report together with targets for improvement. Parents are also updated on attainment and pupil progress during termly parents' consultations.

Cross-curricular Opportunities

Pupils are taught that mathematical skills and knowledge are needed in all aspects of life. Where possible, purposeful links are made with other areas of the curriculum.

Resources

Each classroom has a range of practical equipment appropriate to the level of the learners. The mathematics co-ordinator monitors equipment in school in liaison with class teachers. There is no core scheme of work, but instead a wide variety of material, including resources for the more able and less confident learners. These have been distributed to relevant year groups.

Use of ICT

Interactive learning is facilitated by the use of the Smartboard. Software is used to support the acquisition of new concepts and to reinforce number skills and calculations. Visualisers are used to share children's work. Pupils can access additional Maths activities through online resources/platforms such as Doodlemaths, Times Tables Rock Stars and Learning By Questions.

External Involvement

Parents and carers are encouraged to take an interest and support their children with mathematics through weekly homework tasks. Parents are invited into school to look at their child's work and discuss progress as part of the termly consultation evenings. Parents are also provided with a booklet of strategies appropriate to the year group for their child each year. Members of the governing body are encouraged to support the children through review of performance data.



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SUBJECT LEADER Roles & Responsibilities

To monitor the subject and be able to comment on

- Standards throughout the school
- Progression of skills throughout the school

Gather evidence on the quality of provision within the subject through monitoring/evaluation

- Lesson observations/learning walks
- Work/book scrutiny
- Planning scrutiny
- Pupil/staff discussion

Monitoring activities must be agreed with HT before they take place and feedback from these activities should be discussed and agreed with HT before it is given to staff

To be able to identify the quality of provision in the subject

- Know the strengths and weaknesses of the subject
- Know the development priorities for the subject as detailed in the SDP
- Know how the SDP priorities for the subject are being addressed

To develop secure subject knowledge and keep up to date with developments in the subject from EYFS, through KS1 and across KS2

To audit and maintain subject specific resources so that the subject can be successfully delivered throughout the school

- Order replacement/new resources in liaison with HT

Report on your subject to the HT

- Verbally at meetings, when requested
- Through the end of year co-ordinator report

Co-ordinate Governor visits, when requested, following liaison with the HT

Maintain CPD of yourself and other staff with a focus on your subject area

- Feedback to other staff on CPD undertaken
- Lead staff meetings and plan INSET when requested

Maintain the subject policy for the school

- Review the policy as per the policy review schedule
- Liaise with staff in terms of reviewing the policy – amend/distribute the policy accordingly

To advise and assist staff with the teaching and learning of the subject

Maintain a Subject Leader file

In line with HT management of teacher workload, subject leaders should not request additional work from staff unless agreed by HT beforehand