



Worthington Primary School

Mathematics Policy

Date	Review Date	Subject Leader	Nominated Governor
September 2024	September 2025	Ellen Weatherhead	Pam Boyes

We believe mathematics is 'a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.' (The National Curriculum in England Framework Document (DfE))

Our well-balanced curriculum promotes the spiritual, moral, cultural, cultural, mental and physical development of pupils and prepares them for the opportunities, responsibilities and experiences of later life. We will develop pupils' spoken language, reading and writing in all subjects and will develop pupils' mathematical fluency.

Our mathematics policy is rooted in the principles of British values and respect for protected characteristics. We aim to teach mathematics in a manner that promotes inclusivity, diversity, and mutual respect among all learners, regardless of their backgrounds or identities. Through our curriculum, we strive to empower students to engage critically, think analytically, and collaborate effectively, while honouring the unique perspectives and identities that each individual brings to the learning process.

We strive to provide a curriculum that all pupils will find enjoyable with them understanding the relevance of their lessons. This can only be achieved by using the experience, enthusiasm and specialism of individual teachers who provide interesting, relevant, purposeful and differentiated lessons based on real-life experiences, wherever possible, in a structured well ordered classroom environment.

Annually we undertake a subject evaluation that is based on the following questions:

- How do we design and provide a curriculum that is broad and balanced for all pupils? (Curriculum Intent)
- How do we deliver our curriculum through teaching, assessment and feedback? (Curriculum Implementation)
- How do we assess pupil achievement through external tests/exam results and by our own school data? (Curriculum Impact)

We all have a responsibility to ensure equality permeates in to all aspects of school life and that everyone is treated equally. We want everyone connected with this school to feel safe, secure, valued and of equal worth.



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We believe it is essential that this policy clearly identifies and outlines the roles and responsibilities of all those involved in the procedures and arrangements that is connected with this policy.

Please read this policy in conjunction with the Mathematics Curriculum Statement and our SEND, Feedback and Marking, Teaching and Learning and Assessment Policy

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.
- To ensure that all pupils reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- To ensure that all pupils 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.

(The National Curriculum in England Framework Document (DfE) 2014)

- To develop an enthusiasm for and fascination with mathematics.
- To increase the confidence of each pupil in mathematics to enable them to apply the knowledge and skills with assurance.
- To promote the teaching of numeracy and literacy within all subjects.
- To evaluate the school curriculum by focusing on curriculum intent, implementation and impact.
- To share good practice within the school.
- To ensure compliance with all relevant legislation connected to this policy.
- To work with other schools and the local authority to share good practice in order to improve this policy.

Roles and Responsibility for the Policy

Role of the Governing Body

The Governing Body has:

- appointed a member of staff to be responsible for the curriculum leadership of Mathematics;
- delegated powers and responsibilities to the Headteacher to ensure all school personnel and stakeholders are aware of and comply with this policy;
- responsibility for ensuring compliance with the legal requirements of the National Curriculum;



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- responsibility for ensuring that the school complies with all equalities legislation;
- responsibility for ensuring funding is in place to support this policy;
- responsibility for ensuring this policy and all linked policies are maintained and updated regularly;
- responsibility for ensuring all policies are made available to parents;
- the responsibility of involving the School Council in:
 - determining this policy with the Governing Body;
 - discussing improvements to this policy during the school year;
 - organising surveys to gauge the thoughts of all pupils;
 - reviewing the effectiveness of this policy with the Governing Body
- nominated a link governor to:
 - visit the school regularly;
 - work closely with the Headteacher and the coordinator;
 - ensure this policy and other linked policies are up to date;
 - ensure that everyone connected with the school is aware of this policy;
 - attend training related to this policy;
 - annually report to the Governing Body on the success and development of this policy.
- responsibility for the effective implementation, monitoring and evaluation of this policy.

Role of the Headteacher

The Headteacher will:

- work in conjunction with the Senior Leadership Team to ensure all school personnel, pupils and parents are aware of and comply with this policy;
- ensure teachers:
 - 'have good knowledge of the subject(s) and courses they teach;
 - have effective support for those teaching outside their main areas of expertise;
 - present subject matter clearly, promoting appropriate discussion about the subject matter they are teaching;
 - check learners' understanding systematically, identify misconceptions accurately and provide clear, direct feedback and in doing so, they respond and adapt their teaching as necessary, without unnecessarily elaborate or differentiated approaches;
 - design their teaching to help learners to remember in the long term the content they have been taught and to integrate new knowledge into larger concepts;
 - use assessment well in order to help learners embed and use knowledge fluently or to check understanding and inform teaching;
 - create an environment that allows the learner to focus on learning;



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- develop a rigorous approach to the teaching of reading in order to develop learners' confidence and enjoyment in reading;
- use reading materials at the early stages of learning to read that are closely matched to learners' phonics knowledge'.

(Amended from the 'Education Inspection Framework' (Ofsted 2019))

- work closely with the curriculum leader, subject leaders and the link governor;
- ensure compliance with the legal requirements of the National Curriculum;
- consider disapplying a pupil from all or part of the National Curriculum for a period of time if this will benefit the child;
- encourage parents to take an active role in curriculum development;
- provide leadership and vision in respect of equality;
- provide guidance, support and training to all staff;
- monitor the effectiveness of this policy by:
 - observing teaching and learning
 - planning scrutinies and work trawls
 - discussions with pupils and members of the school council
- annually report to the Governing Body on the success and development of this policy.

Role of the Senior Leadership Team

The Senior Leadership Team will:

- provide strategic leadership and direction;
- provide a curriculum that provides pupils with the essential knowledge they need to be educated citizens in democratic Britain;
- coordinate a number of working parties in order to explore ways of improving the curriculum and the way in which we deliver it with a view of ensuring the highest standards of delivery and consistency in pupil's learning and teaching experiences and opportunities throughout the school;
- provide an environment that is fun, stimulating and challenging to all pupils;
- promote an awareness of and respect for a diversity of cultures, values, beliefs and abilities;
- equip children with a range of skills and a desire for lifelong learning;
- ensure appropriate coverage of the curriculum;
- provide support and advice;
- monitor pupil progress;
- ensure sufficient and up to date resources are in place.

Role of the Subject Leader

The Subject Leader will:



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- lead the development of this policy throughout the school;
- work closely with the Headteacher, SLT, the nominated governor and SENCO;
- promote the teaching of numeracy and literacy within all subjects;
- be accountable for standards in this subject area;
- monitor standards by:
 - auditing the subject area
 - review of the scheme of work
 - monitoring teachers planning
 - lesson observations
 - scrutinising children's work
 - discussions with pupils
- work in conjunction with the Headteacher, Senior Leadership Team, Subject Leaders, teaching and support personnel to provide statements on each of the following:

(Quotes taken from the Education Inspection Framework (Ofsted 2019))

- ensure continuity and progression throughout the school;
- devise a subject improvement plan;
- provide guidance and support to all staff;
- provide training for all staff on induction and when the need arises regarding;
- attend appropriate and relevant INSET;
- keep up to date with new developments;
- undertake an annual audit and stock take of resources;
- purchase new resources when required and in preparation for the new academic year;
- manage the subject budget effectively;
- undertake risk assessments when required;
- review and monitor;
- annually report to the Governing Body on the success and development of this policy.

Role of Teachers

Teachers will:

- comply with all aspects of this policy;
- work closely with the subject leader to develop this policy;
- devise medium and short term planning;
- develop mathematical fluency, numeracy and mathematical understanding in all subjects;
- develop pupils' spoken language, reading, writing and vocabulary in all subjects;
- plan and deliver good to outstanding lessons;
- plan differentiated lessons which are interactive, engaging, of a good pace and have a three part structure;



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- have high expectations for all children and will provide work that will extend them;
- assess, record and report on the development, progress and attainment of pupils;
- achieve high standards;
- celebrate the success of pupils in lessons
- implement the school's equalities policy and schemes;
- report and deal with all incidents of discrimination;
- attend appropriate training sessions on equality;
- report any concerns they have on any aspect of the school community.

Role of Pupils

Pupils will:

- be aware of and comply with this policy;
- be encouraged to work in partnership with the school by making decisions and exercising choice in relation to their educational programme;
- listen carefully to all instructions given by the teacher;
- ask for further help if they do not understand;
- participate fully in all lessons;
- participate in discussions concerning progress and attainment;
- treat others, their work and equipment with respect;
- support the school Code of Conduct and guidance necessary to ensure the smooth running of the school;
- liaise with the school council;
- take part in questionnaires and surveys.

Role of Parents/Carers

Parents/carers will:

- be aware of and comply with this policy;
- be encouraged to take an active role in the life of the school by attending:
 - parents and open evenings
 - parent-teacher consultations
 - curriculum development workshops
- be encouraged to work in school as volunteers;
- be encouraged to respond to curriculum information newsletter;
- be informed via termly newsletters of their child's topics;
- asked to provide suggestions and ideas for improving this subject;
- be asked to take part periodic surveys conducted by the school on curriculum development;
- be invited to make presentations to pupils on aspects of this subject area;
- encourage effort and achievement;
- encourage completion of homework and return it to school;



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- provide the right conditions for homework to take place;
- expect their child to hand in homework on time;
- join the school in celebrating success of their child's learning.

Policy Procedure

Teaching and Learning Style

We use a variety of teaching and learning styles in order to develop children's knowledge, skills and understanding.

Curriculum Planning and Organisation

At Worthington, we have chosen a Maths curriculum that is flexible and adaptable to meet the needs of our children. Children receive daily Maths lessons and a small step approach is used to ensure a robust progression across the school. Teachers use small steps as the basis of planning and after discussion with the Maths Lead, may change the time/ order in which certain topics are taught based on the needs of their children. Our curriculum also takes a Mastery approach and we are currently working with our local Maths hub on 'Teaching for Mastery' in the Development Phase. Teachers plan collaboratively and share subject expertise and knowledge. Smart whiteboards are used to plan and ensure consistency across year groups.

Nursery start with language focus in the Autumn Term primarily focusing on shape followed by the NCETM Number Blocks unit for number in the Spring and Summer Terms

Reception use the Math's Hub 'Mastering Number' as their main curriculum and use White Rose Maths Shape and Measure units to supplement this.

Years 1-6 follow the White Rose Small Step progress supplemented by the NCETM Mastery Documents.

In addition to this, children receive extra fluency sessions as follows:

Key Stage One follow 'Mastering Number' following on from Reception. This focuses on number fluency.

Key Stage Two follow Number Sense which focuses on conceptual knowledge of times table to become multiplicatively fluent.

Links with ICT

The use of information and communication technology will promote, enhance and support the teaching of this subject area. However, calculators 'will not be used as a substitute for good written and mental arithmetic but will be 'introduced near the end of KS2 to support



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pupils' conceptual understanding and exploration of more complex number problems, if written and mental arithmetic are secure.'

We are aware that it is often said that calculators can harm pupils' arithmetic skills but recent research has found that when taught properly, calculators can help pupils become better at problem solving. Calculators are a useful tool and pupils need to be shown how to use them correctly.

We acknowledge that calculators, when used regularly but not every day, can actually boost pupils' fluency and understanding of maths. We will endeavour to show pupils how they can use them to check if calculations are correct and how to tackle tricky number problems.

We know that employers really value numeracy but they do not want prospective employees to just recite their multiplication tables but people who can work out something in the real world.

Inclusion

At Worthington, we adapt our Mathematics Curriculum to suit the needs of all our children. Lessons are planned and designed to enable teachers to deliver quality first teaching. Children of all abilities access manipulatives and representations to support their understanding. Teachers use their knowledge of the children to move away from or keep manipulatives to support learning.

Teaching assistants are deployed effectively to support the needs of the children by working with children with a range of abilities during adult led sessions and in small groups. Prior knowledge is consistently drawn upon and explicitly referred to in each lesson. Children receive 'Same Day Provision' to enable a 'keep up' approach. Children who have larger gaps in their learning will be placed in small group provision. At Worthington, we follow the Department for Education's 'Ready to Progress Criteria' to plan for extra support.

Children have access to a Math's Working walls with prior knowledge and vocabulary. Worked examples are used to support children in their application of skills.

We also offer all children enrichment activities within the curriculum including:

- Reception and Year 1 Maths Packs
- Maths pack for older children who require extra early number support
- Celebrating Maths week or number day
- Inviting parents in to engage with Maths in a fun and exciting way.

Special Educational Needs

At Worthington, we believe all children can succeed and achieve their potential.

Children with SEND will have access arrangements which can include:

- Printed out sheets
- Coloured overlays
- Prompt sheets
- Specific seating arrangements



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- 1:1 or small group support
- Vocabulary word banks
- Reading questions aloud
- Scaffolded activities

Children who are not able to access their year group's curriculum, are provided with a 'Tiny Step Curriculum' that is tailored to ensure their individual needs are met consistently. Children with specific mathematic difficulty may receive 'Dynamo Maths' provision to support mathematical developmental delay or dyscalculia.

Assessment for Learning

Teachers in EYFS and Year 1 will:

Carry out continuous daily assessments to support children in their learning.

Implement end of unit assessments to inform next steps.

Carry out Checkpoint assessments at the end of each term.

Inform parents and carers of their child's progress and targets.

Teachers in Year 2 – 6 will:

Carry out continuous daily assessments to support children in their learning.

Implement end of unit assessments to inform next steps.

Carry out formal end of term NTS assessments to aid teacher assessment.

Administer national tests in Year 2(optional SATS), 4 (Multiplication Times Table Check) and 6 (SATs)

Monitoring and Review of the Subject

Monitoring of standards of children's work and the quality of teaching is the responsibility of the subject coordinator supported by the Headteacher and the SLT.

Standards will be monitored by:

- looking at pupils work
- subject learning walks
- audit of subjects
- scrutiny of planning
- general curriculum discussions

Contribution of the Subject to other Areas of the Curriculum

Mathematics contributes to 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.



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Resources

The school has a full range of resources to support the teaching of this subject throughout all year groups. Resources are upgraded and replenished when the need arises. An annual stock take and audit is undertaken by the subject coordinator in the summer term in preparation for the next academic year.

Training

We:

- ensure the content of all training is correct, delivered well and engages staff as we believe that the more engaging training is, the better the outcomes that we need to measure;
- Staff needs are identified and training is provided for both teachers and teaching assistants.

Monitoring the Implementation and Effectiveness of the Policy

The practical application of this policy will be reviewed annually or when the need arises by the coordinator, the Headteacher and the nominated governor.

A statement of the policy's effectiveness and the necessary recommendations for improvement will be presented to the Governing Body for further discussion and endorsement.

Headteacher:		Date:	
Chair of Governing Body:		Date:	