Maths Policy

October 2025

This policy covers many of the articles from the Unicef convention on the rights of the child. Some key ones are listed below.

Article 12 – Children have the right to give their opinion and their views must be taken seriously.

Article 13 – Children have the right to find out information and share what they think by writing, drawing or talking about it unless it harms anyone else.

Article 28 – Every child has the right to an education.

Article 29 – Every child's education must develop their talents and abilities.

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Date written: October 2024 **Date for review:** October 2026

Intent

At Grafton we want our children to develop a love and competency in maths.

At Grafton we follow the REAL curriculum

Maths

R: R*elevant, research-based, reflective*
The curriculum provides coverage of mathematical skills that are practical and relevant to the world in which we live.
We follow a scheme based on research that is regularly updated.
We ensure that we are reflective in our teaching so that we are able to address children's needs.

E: E*ngaging, enquiry-led*
Teaching and learning is underpinned by enquiry-led learning, encouraging children to question, explore and investigate using critical thinking.
The curriculum encourages the use of practical work and we teach the development of practical skills to strengthen and deepen understanding.
It also provides problem solving opportunities that allow children to reflect on their learning.

A: Aspirational, with achievement for all
To understand the role that maths plays in future careers and how exciting the world of maths can be.
Explore the skills and personal skills that a mathematician might need.

To share with the children famous mathematicians and remarkable people who use maths in their careers from a variety of backgrounds who have had an impact in our world, so that children are able to see people who are representative of them.

Share with the children the careers and pathways that maths might lead to, including meeting people in roles .

To support children at whatever their level of attainment to reach and exceed in Maths from their starting points, including the use of practical resources and adaptive teaching.

L: *For a life-long love of learning*
Provide the children with opportunities to develop their love of maths, understanding that it is an integral part of their future lives that will help them with their career potential.
To offer opportunities to join clubs and competitions. To signpost after school opportunities, clubs and competitions with families.
To develop a love of maths not only beneficial for future life skills but also personal challenge and past time.
To develop knowledge and understanding of maths strategies enabling children to select the most effective methods that work for them and which are applied effectively, so that this can be applied throughout their lives.

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Implementation

Aims of the 2014 National Curriculum:

- To become fluent in the fundamentals of Mathematics through varied and frequent practice with complexity increasing over time.
- Develop conceptual understanding and ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically; follow a line of enquiry, conjecture relationships and generalisations.
- Develop an argument, justification and proof by using mathematical language.
- Problem solve by applying knowledge to a variety of routine and non-routine problems. Breaking down problems into simpler steps and persevering in answering.

Good Mathematics teaching is lively, engaging and involves a carefully planned blend of approaches that direct children's learning. Children are challenged to think. The teacher provides children with good support, but requires independence as and when appropriate. The pitch and pace of the work is sensitive to the rate at which the children learn, while ensuring that expectations are kept high and progress is made by all children.

Good Mathematics teaching requires a good knowledge of the subject, and understanding of the progression in the curriculum being taught and an adaptable teaching approach that recognises different ways of promoting particular learning objectives and outcomes. At Grafton our maths teaching is based on a mastery approach, with small steps in learning being planned for as children progress through units of learning. We are guided in our teaching through the Powermaths scheme, additional White Rose resources and the NCETM resources. Teaching is built on the principles of progression through concrete, pictorial and abstract, with connections between different maths areas explicitly identified and exploited. Varied representations, concepts and strategies are employed to interest, motivate and challenge children.

Through the mastery approach the expectation is for all children to move through the programme of study at broadly the same pace; with those children showing security to be challenged via problems and reasoning tasks as appropriate, to use and apply their knowledge and understanding. Whilst other children who may be less secure have further opportunity to rehearse and consolidate their understanding. Although we no longer set fully for mathematics it may be necessary for year groups to set for some units in the following groups – SEND / lower ability enabling teachers to target their teaching in line with the group needs and ability.

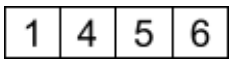
Good Mathematics lessons should include:

- A learning objective/focus for each session, a progressive step the curriculum objective.
- Lively and engaging oral and mental starters, which prepare the children for new learning within the lesson or reinforce previous learning. Within the Powermaths scheme these are the Power up activities or the Quick recaps.
- Teaching which includes direct modelling, opportunities for individual, partner and group working, effective questioning for all children, time for independent work and time to reflect on learning, all features of a Powermaths lesson.
- Classes will undertake four maths sessions per week alongside additional opportunities to reinforce fluency and basic skills, see the basic skills and fluency appendix.

- For EYFS - Yr2 this fluency focus includes undertaking the NCETM Mastering Number programme.
- Teaching follows the integrity of the powermaths scheme including regular assessment of children's progress and then adapt to it.
- Opportunities for all children to progress their understanding by using concrete resources effectively to support their understanding of mathematical ideas and the development of calculation strategies.
- Creatively and effectively using concrete and pictorial resources and representations prior to abstract learning.
- Opportunities for all children to regularly develop and refine their mental calculation skills, and practise their verbal reasoning.
- Opportunities for investigational Maths, problem solving and reasoning.
- Careful and precise use of mathematical representations, vocabulary and notation.
- Effective and relevant use of the working wall, assisting and guiding children during their independent work.
- Regular opportunities for the use of ICT to support and enhance children's learning, especially at home. (Powermaths games, TTR, Numbots)

Setting Out

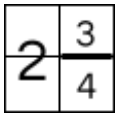
- All children will complete their independent learning within the powermaths practice books.
- Additional work can be completed in A4 purple squared maths books. Years 1, 2, 3 and 4 will use books with 10mm squares and years 5 and 6 will use books with 7mm squares.
- All maths work must be completed in pencil.
- Dates, in the short format, must be written into all recorded work pieces.
- Children should be encouraged to annotate their work and make jottings to demonstrate their thinking process.
- When writing numerals, they must be written as one digit per square.

E.g. 

- Fractions should be written as one digit per square, one above the other.

E.g. 

- Mixed numbers should have the whole number written in two boxes.

E.g. 

- Decimal points should be written in the middle of their own square.

E.g. 

- All lines must be drawn with a ruler.
- Any written work should be on the line, and not one letter per square.

Numbers must be written following the school handwriting policy:

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Homework

Homework set is generally online games and focuses on developing fluency in basic number facts – number bonds, multiplication tables and mental recall of calculations and key facts.

Displays

Please see below for a list of non-negotiable items that must be displayed in all classrooms:
-Maths Working Wall – including:

- Key math vocabulary and prompt posters pertinent to unit
- Examples of representations pertinent to unit
- Modelled strategies, including setting out expectations
- Prompts, ideas and good examples of work that have been generated during lessons
- Examples of children's work
- Interactive questions (e.g. problem of the week)

-Number Line (with negative numbers in KS2)
-Times Tables – pertinent to year group
-100 Number Square
-Classroom clock
-Months of the Year/Days of the Week
-Access to rulers and metre stick

Resources

Each classroom should have access to everyday resources that may be drawn upon independently by the children in their work or under teacher direction. These include the following resources:

- Multilink cubes
- Arrow cards
- Tens and ones (dienes) or place value counters
- Dice
- Number lines
- Hundred squares
- Counters
- Tens frames, part whole models, place value grids, bar models

Topic based resources such as clocks, scales, 2d and 3d shapes, measuring tapes, sticks and wheels etc are all stored within the math cupboard and should be returned, after completion of the unit, back to the cupboard within the assigned space / shelf where it was originally located. Please endeavour to return all items correctly and keep the resource cupboard tidy.

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Marking

Children's work must be marked as soon as possible after work is completed, ideally with the child present and should be at least reviewed by the teacher before the next lesson. Assessment must be used to inform planning and children must receive feedback on what they have completed.

It is recognised that there are occasions when it is more appropriate for children to mark their own or each other's work. This enables teachers to address any misconceptions within the lesson. However, children must be taught to do this as neatly as possible, and this work must still be checked by the class teacher. Using an alternative coloured pen can ensure children engage more fully with this additional learning opportunity.

Marking should inform pupils of the progress they have made, and also inform them of what they need to do to improve further and how to achieve it. Marking should be completed in green pen.

If verbal feedback needs to be given, the teacher then needs to write 'vf' and if possible record the feedback given.

Teachers in year 2-6 will use the following marking format:

- ✓ If correct
- If incorrect and needs correcting.
  (An additional box or line may be identified for the correction to be written.)
- ✓c When corrected

Next steps marking should be used in all children's books in line with the school marking policy with targeted groups per week. This can be to address a misconception, or as a challenge task to extend their learning.

Please see the Calculation Policy and Basic skills and Fluency Appendix for further details on teaching and the curriculum at Grafton Primary School.

Impact

Assessment

- Daily informal short-term assessments inform planning and resulting amendments appear on the following day's and week's plans.
- End of unit assessments are used to identify pupils' strengths, progress and difficulties and to plan for the next stage of work.
- End of unit checks, including the recorded dialogue and explanations from children work effectively to assess understanding and indicate misconceptions. White Rose unit assessments also work well here.
- Teacher assessment is entered onto Arbor on a termly basis.
- Children are assessed at least twice during the year using a standardised test, usually end of Autumn and Summer terms

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- Analysis of end of year results informs future planning.
- Certificates for outstanding maths work, perseverance or progress can be awarded at school weekly celebration assemblies as pupil of the week.
    - The assessments are used to analyse the gaps in children's knowledge and to plan for future learning.

The final impact is that children make good or better progress from their starting points /this will be reflected in data which is in line with National Data or better.
Grafton's children will be prepared for the next stage in their learning.