



BENGWORTH CE ACADEMY

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# MATHEMATICS POLICY 2024 - 2025

September 2024



**Bengeworth**  
Multi Academy Trust

*Brilliant People • Better Schools • Bright Futures*

# STATEMENT OF INTENT

## Curriculum Intent

At Bengeworth CE Academy, we provide a broad, balanced and knowledge rich curriculum which is underpinned by our values, core beliefs and an education for global citizenship taught through our Global Themes. Our intent and vision intends to:

***'Develop aspirational, confident learners and leaders of the future who have a deep understanding of the world around them and the impact they can have on it.'***

It is our intention that our children are provided with inspirational learning experiences that will ignite sparks within the children and enable them to develop and build upon their long-term memory by making links and connections that enable them to know and remember more. As confident, articulate and happy individuals we intend for our children to achieve academic excellence and who consider themselves as leaders within their own right. Leaders who can and will have an impact on the world around them.

Our Global Themes are:



Power and Governance



Peace and Conflict



Human Rights



Sustainable Development



Identity and Diversity



Social Justice and Equity

Through a deep respect of the traditions of each unique subject, our curriculum recognises the identity of the disciplines that are studied. We have taken great care to design a well-sequenced, well-specified and ambitious curriculum for all children to access, ensuring our values and global themes underpin it. We consistently strive to ensure that the curriculum is exciting and challenging and reflects and nurtures children's interests, needs and celebrates the many successes of our children.

Links between subject disciplines are made to ensure there is an engaging and relevant context within which to learn and globally themed questions are used as the driving forces for each half-term/term's focus. We strongly believe that the relationship between education and learning should not be shaped by narrow outcomes but that it should serve another purpose; *a whole education, not defined solely by what is measured, but what is experienced, felt and used.* Through our Global Themes' curriculum, we are providing children with the skills needed to understand, challenge and tackle the social, political and economic challenges that are moving rapidly towards us.

## Subject Intent

Our aim for our children in mathematics is to enable them to become fluent and confident mathematicians who have a secure understanding of the fundamentals of mathematics which has been developed through the use of varied and frequent practice that increases in complexity over time. As a result of deliberate practice, we strive to ensure all of our children develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately that further enhances their confidence when problem-solving. A strong emphasis is placed on opportunities for children to reason mathematically, by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

The National Curriculum 2014 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 problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

We want our children to be able to:

- Enjoy their learning and use Mathematics confidently.
- Think logically and clearly.
- Explain their methods and reasoning when solving problems.
- Use Mathematics in practical tasks and real-life problems.

Gain knowledge of key Mathematics to include:

- Use and understand number; estimate, approximate and interpret results.
- Use and recognise symbolic and graphical representation to express relationships.
- Use and recognise the properties of 2-D and 3-D shapes and use measurement, locations and transformation in the study of space.
- Collect, present, process and interpret data, understand and find probabilities.
- To use ICT to support their learning in Mathematics.
- Use our mathematical skills outside of the classroom to learn how these can be applied in real life situations (LoTC).

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. Our curriculum ensures children apply mastery skills. 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 mastery 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 practice, before moving on.

When teaching Mathematics at Bengeworth CE Academy, we intend to provide a curriculum which caters for the needs of all children and sets them up with the necessary skills and knowledge for them to become successful in their future adventures. We aim to prepare them for a successful working life. We incorporate sustained levels of challenge through varied and high-quality activities with a focus on fluency, reasoning and problem solving.

## **Mastery**

Pupils are required to explore Mathematics in depth, using mathematical vocabulary to reason and explain their workings. A wide range of mathematical resources are used and pupils are taught to show their workings in a concrete, pictorial and abstract form, where appropriate. They are taught to explain their choice of methods and develop their mathematical reasoning skills. We encourage resilience, adaptability and acceptance that struggle is often a necessary step in learning. Our curriculum allows children to better make sense of the world around them relating the pattern between Mathematics and everyday life.

## **Legal framework**

This policy has due regard to statutory legislation, including, but not limited to, the following:

- *DfE 'Statutory framework for the Early Years Foundation Stage' 2021*
- *DfE Mathematics programmes of study: Key Stages 1 and 2' 2013*

# IMPLEMENTATION

Our curriculum is translated over time in the classroom following a structured approach. Detailed topic overviews, highlighting the substantive and disciplinary knowledge and vocabulary to be taught have been developed for each subject. These overviews reduce workload, enabling teachers to spend more time thinking about how each lesson can be effectively enacted in their classroom to support the specific context of the classes.

Each lesson begins with a prior learning review, where children are supported in activating prior knowledge and to make connections between their learning. We have an emphasis on explicitly teaching vocabulary, and each lesson includes the introduction, oral rehearsal, and engagement with key vocabulary (e.g., I say, you say, we say, Star Word etc). Key vocabulary is contextualised throughout the lesson, including through the use of Topic Warmers and children are given opportunities to apply new words. Our teachers use the following principles of cognitive science when planning lessons to enable **all** pupils to access the knowledge, skills and vocabulary needed to succeed:



Core concepts, explicit vocabulary and substantive and disciplinary knowledge have been mapped progressively. Lesson content in planned accordingly to ensure full coverage of these core concepts:

EYFS

[https://docs.google.com/document/d/1\\_BRpleLTO6Lv548HNdntVHO67p0d9wNI/edit?usp=share\\_link&ouid=117594765273689596751&rtpof=true&sd=true](https://docs.google.com/document/d/1_BRpleLTO6Lv548HNdntVHO67p0d9wNI/edit?usp=share_link&ouid=117594765273689596751&rtpof=true&sd=true)

KS1

[https://drive.google.com/file/d/1xWnkQyauXKdZdkbw\\_Aiw\\_-zykZuCadVc/view?usp=share\\_link](https://drive.google.com/file/d/1xWnkQyauXKdZdkbw_Aiw_-zykZuCadVc/view?usp=share_link)  
[https://drive.google.com/file/d/1f\\_UplL1RtWfK-WsoiKW9pA3x1ijSua9-/view?usp=share\\_link](https://drive.google.com/file/d/1f_UplL1RtWfK-WsoiKW9pA3x1ijSua9-/view?usp=share_link)

KS2

[https://drive.google.com/file/d/155cDb7FeQCGZmCs1eVilLo5x8d5VPMY9/view?usp=share\\_link](https://drive.google.com/file/d/155cDb7FeQCGZmCs1eVilLo5x8d5VPMY9/view?usp=share_link)  
[https://drive.google.com/file/d/1uDxc0umxS-mEv8csl-o1a1VuijvYD7P9/view?usp=share\\_link](https://drive.google.com/file/d/1uDxc0umxS-mEv8csl-o1a1VuijvYD7P9/view?usp=share_link)  
[https://drive.google.com/file/d/1icFt47l6frSQMki6-DkCx1K22jhfd3K9/view?usp=share\\_link](https://drive.google.com/file/d/1icFt47l6frSQMki6-DkCx1K22jhfd3K9/view?usp=share_link)

### Subject Delivery:

<b>Subject Delivery and Frequency</b>	<i>Mathematics taught 3 times per week, plus EITHER daily fluency sessions in EYFS/KS1 and Y4-5 OR weekly fluency KIRFs sessions in Y3.</i>
<b>Planning Expectations</b>	<i>Mathematics Epiphany curriculum objectives sequence followed</i>
<b>Learning Environment</b>	<i>Working wall displays, Y2-5 Multiplication knowledge walls</i>
<b>Resources</b>	<i>It is expected that all staff will utilise concrete and pictorial resources within maths lessons across all concepts and groups of children.</i>

# IMPACT

The impact of this curriculum design will lead to outstanding progress over time across key stages relative to a child's individual starting point and their progression of skills and knowledge. Pupils will therefore be expected to leave Bengeworth CE Academy reaching age-related expectations or higher across the curriculum.

## Assessment and Reporting

To continually improve the impact of the curriculum and evaluate pupils' learning to ensure children 'Know more and Remember more', formative and summative assessments are carried out in line with the knowledge and skills progression documents across all subjects.

Formative assessments are conducted regularly using a wide range of [retrieval strategies](#) to check for understanding and monitor pupil's learning throughout lessons which provides teachers and children with information about progress and analysis of deliberate retrieval practice.

Summative assessments are conducted to ensure pupils' are making progress over time, to assess what pupils have learnt and the depth of that learning. Depth of knowledge is then assessed through end of unit assessments and subject portfolios (books & SeeSaw).

## Subject Specific Assessment

Formative Assessment	Summative Assessment
Hinge Questions Entry / Exit Tickets Socratic Quizzes Brain Dumps Show Me Boards Speak Like An Expert Explanation Tasks Retrieval Grids	Early Years Foundation Optional Key Stage 1 SATs Y4 Multiplication Check Half termly Epiphany Assessments

## Monitoring and review

- This policy will be reviewed annually by the subject leader and the Leadership Team.
- Any changes made to this policy will be communicated to all members of staff.

The scheduled review date for this policy is **September 2025**

# Bengeworth

## Multi Academy Trust

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