Mathematics Policy

Brady Primary School

Reviewed March 2026

Our vision for Mathematics at Brady Primary School

The language of mathematics is international. The basic skills of mathematics are vital for the life opportunities of our pupils. Our aim is for all pupils to think mathematically, enabling them to reason, solve problems and assess risk in a range of contexts.
At Brady Primary School our curated mastery approach has been developed to ensure every pupil can achieve excellence in mathematics. Pupils can experience a sense of pride and achievement as they solve a problem for the first time, discover different solutions and make links between different areas of mathematics. It provides pupils with a deep understanding of the subject through a concrete, pictorial and abstract approach. This ensures pupils fully understand what they are learning.

Key features of our Maths Mastery curriculum:

- High expectations for **every** pupil.
- Progressive topics facilitating Greater Depth (GDS).
- Number sense and place value come first.
- A focus on mathematical thinking, reasoning and language.
- Resources to support all learners.
- Problem solving is central.
- Pupils calculate with confidence – they understand **why** it works.

Mathematics mastery places emphasis on the cumulative mastery of essential knowledge and skills in mathematics. It embeds a deeper understanding of maths by utilising a concrete, pictorial, abstract approach so that pupils understand what they are doing rather than just learning to repeat routines without understanding what is happening.

The teaching of Mathematics at Brady Primary School

EYFS (Early Years Foundation Stage)

Teachers will use the phases outlined in the White Rose Maths Scheme of Learning for EYFS and are free to supplement their teaching with other resources, including 'Master the Curriculum' and 'number bots' that match the intended learning goals. The phases of the Scheme of Learning are a guide for teachers to ensure coverage of the EYFS maths curriculum. Teachers are free to make adaptations to the progression or order of the phases to meet the needs of the learners in their class.

Years 1-6

These Year Groups will be fulfilling the criteria of the National Curriculum for Mathematics (2014) with a focus on developing 'Mastery' of that Year Group's content using the long term, medium term and short-term planning of the White Rose Maths Scheme of Learning (SoL). By following the small steps of this scheme, teachers will be developing the pupils' skills in a progressive, logical way and will be able to address misconceptions in prior learning. Coverage will be progressive, logical and allows time for the teachers to extend or truncate learning to meet the needs of their class.

With this in mind, these cohorts will build their skills using Concrete, Pictorial and Abstract representations of Mathematics, in line with a 'Mastery' approach to learning.

Class teachers are free to supplement White Rose Maths small steps progression using resources from Classroom Secrets, NCETM, Nrich, Twinkl and Target Your Maths to build engaging and challenging lessons for their pupils and to meet their individual needs.

Brady Primary School uses two main methods for pupils to record their learning:

Number formation

Pupils are taught the correct formation of numerals from the Early Years Foundation Stage (EYFS) where number formation is explicitly modelled and practiced using agreed rhymes to support consistent starting points, direction and orientation. These rhymes are used to help pupils develop secure and accurate numeral formation from the outset. Once introduced, the agreed formation is reinforced and expected throughout the school to ensure that all pupils record numbers clearly, neatly and consistently in all areas of mathematics. Accurate numeral formation supports pupils in presenting their work effectively and reduces errors when recording calculations and mathematical reasoning.

0 - Around to my left to find my hero, back to the top, I've made a zero.
1 – A downward stroke, my that's fun. Now I've made the number one.
2 – Half a heart says "I love you." Add a line. Now I've made the number two.
3 – Around the tree, around the tree, now I've made the number three.
4 – Down and across and down once more, now I've made the number four.
5 – Draw the hat, the back and the belly. It's a five. Watch out, it might come alive!
6 – Bend down low to pick up sticks. Now I've made the number six.
7 – Across the top and drop down low, you've made a seven, there you go.
8 – Make an "S" and close the gate. Now you've made the number eight.
9 - Make an oval and a line. Now I've made the number nine.

White Rose Maths worksheets.

These worksheets are tailor made for the progression found in the Scheme of Learning. Each worksheet becomes increasingly more challenging and provides opportunities for varied fluency, reasoning and problem-solving. These are mainly used in Key Stage 1, but Key Stage 2 teachers have the option of using them for specific lessons, topics or blocks if they are more suitable for their needs.

The challenge system (curated mastery)

Brady Primary teachers can use a challenge system for Learning Objectives and challenges within our maths lessons to aid pupils in understanding and reflecting upon their daily learning. Pupils will self-assess their learning against the learning objective at the end of each lesson to show their own understanding of their progress. Every pupil will

have the opportunity to experience varied fluency, problem-solving and reasoning challenges in every lesson.

Within the challenge system each pupil will have the opportunity to experience varied fluency, reasoning and problem-solving skills. Using a simple colour progression of: **blue**→**black**→**green** (ARE)→**purple** (GDS), pupils will experience a range of problems that will both challenge them and show progression, while also allowing the pupils and teachers to make accurate assessments about progress and attainment. Pupils who demonstrate an understanding at the Greater Depth standard will be extended to leverage their deeper understanding and reasoning skills.

A more detailed breakdown of how calculations are taught, embedded and further developed can be seen in our separate Mathematics Calculation Policy.

The progression of skills for the four operations across Brady Primary School, including the Concrete, Pictorial, Abstract approach:

	EYFS/Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition	Combining two parts to make a whole: part whole model. Starting at the bigger number and counting on- using cubes. Regrouping to make 10 using ten frame.	Adding three single digits. Use of base 10 to combine two numbers.	Column method- regrouping. Using place value counters (up to 3 digits).	Column method- regrouping. (up to 4 digits)	Column method- regrouping. Use of place value counters for adding decimals.	Column method- regrouping. Abstract methods. Place value counters to be used for adding decimal numbers.
Subtraction	Taking away ones Counting back Find the difference Part whole model Make 10 using the ten frame	Counting back Find the difference Part whole model Make 10 Use of base 10	Column method with regrouping. (up to 3 digits using place value counters)	Column method with regrouping. (up to 4 digits)	Column method with regrouping. Abstract for whole numbers. Start with place value counters for decimals- with the same amount of decimal places.	Column method with regrouping. Abstract methods. Place value counters for decimals- with different amounts of decimal places.

Multiplication	Recognising and making equal groups. Doubling Counting in multiples Use cubes, Numicon and other objects in the classroom	Arrays- showing commutative multiplication	Arrays 2d × 1d using base 10	Column multiplication- introduced with place value counters. (2 and 3 digit multiplied by 1 digit)	Column multiplication Abstract only but might need a repeat of year 4 first(up to 4 digit numbers multiplied by 1 or 2 digits)	Column multiplication Abstract methods (multi-digit up to 4 digits by a 2 digit number)
Division	Sharing objects into groups Division as grouping e.g. I have 12 sweets and put them in groups of 3, how many groups? Use cubes and draw round 3 cubes at a time.	Division as grouping Division within arrays- linking to multiplication Repeated subtraction	Division with a remainder-using lollipop sticks, times tables facts and repeated subtraction. 2d divided by 1d using base 10 or place value counters	Division with a remainder Short division (up to 3 digits by 1 digit- concrete and pictorial)	Short division (up to 4 digits by a 1 digit number including remainders)	Short division Long division with place value counters (up to 4 digits by a 2 digit number) Children should exchange into the tenths and hundredths column too

The assessment of Mathematics at Brady Primary School

EYFS

Formative Assessment:
Teachers will assess each pupil against the Early Learning Goals (ELGs) in the specific areas of **Number** and **Numerical Patterns.** The White Rose Scheme of Learning is used for the spine of the teaching and assessment.

Summative Assessment:
At the end of the EYFS, teachers will use teacher assessment and professional judgement to determine pupils' progress against the ELGs. This information will be shared with all stakeholders, and then the Year One teachers to plan their teaching sequences for the next academic year.

Years 1 & 2

Formative Assessment:
Teachers will assess each pupil using the White Rose Maths activity worksheets that are directly linked to each small step's Learning Objective as well as the White Rose Maths end of unit assessments to make teacher assessment judgements about the attainment of each pupil. These formative assessments are ongoing, but are recorded each term. These teacher assessments form part of the discussion teachers have with parents at parent meetings and with the leadership team at Pupil Progress Meetings.

Summative Assessment:
Towards the end of the KS1, while in Year 2, pupils will sit a formal set of assessments (KS1 SATs) under test conditions. Using government-produced thresholds, teachers will use this evidence will support their assessment for whether pupils are working at the Expected Standard (**EXS**) for Year 2. Judgements for Mathematics will either be internally moderated, or externally moderated via official visits from the Local Authority Moderation team.

Years 3, 4 & 5

Formative Assessment:

Teachers will assess each pupil using a combination of the challenge system, where **green** relates to 'Age-Related Expectation' and **purple** relates to 'Greater Depth', as well as the White Rose Maths end of unit assessments to make teacher assessment judgements about the attainment of each pupil. These formative assessments are ongoing, but are recorded in Autumn 1, Spring 1 and Summer 1 terms. These teacher assessments form part of the discussion teachers have with parents at termly parent meetings.

Summative Assessment:

At the end of each term, pupils will sit formal assessments under test conditions. Using approximate thresholds based on end of KS2 assessments, teachers will record whether pupils are pupils are Working Towards (**WT**) the expectations for their year group, meeting age-related expectations (**EXS**) or working at a standard showing a deeper Greater Depth (**GDS**) understanding of the year group's Maths objectives.
In June 2026, year 4 will sit the statutory Multiplication Table Check (MTC). This is a nationally set assessment administered under formal test conditionals. The purpose of this check is to assess pupil's fluency in recalling multiplication facts up to 12x12. Outcomes from the MTC are reported to parents and careers as part of each pupil's end of year written report.

Year 6

Formative Assessment:

Teachers will assess each pupil using a combination of the challenge system, where **green** relates to 'Age-Related Expectation' and **purple** relates to 'Greater Depth', as well as the White Rose Maths end of unit assessments to make teacher assessment judgements about the attainment of each pupil. These formative assessments are ongoing, but are recorded in Autumn 1, Spring 1 and Summer 1 terms. Additionally, teachers may use past paper examinations to identify specific gaps in each pupil's knowledge as part of a routine assessment for learning (AFL) cycle. These teacher assessments form part of the discussion

teachers have with parents at termly parent meetings.

Summative Assessment:

In May of 2026, year 6 pupils will sit a formal set of externally marked assessments (KS2 SATs) under test conditions. Using government-produced thresholds, pupils will be judged as having not met (**HNM**) the standard of the KS2 assessments or having met the standard (**EXS**). These assessments are reported to parents in each pupil's school report.