



# Brady Primary School

# Maths Policy



‘Inspiring teaching for ambitious learners’



## Aims of Brady Primary School

### “Inspiring teaching, for ambitious learners”

At Brady Primary School our ethos is built around our 4 core values of Dedication, Inspiration, Respect and Achievement. These help us to provide a safe, caring and stimulating environment, which offers opportunities:-

- For everyone within the school to reach their full potential and develop self-worth, self-confidence, the ability to take responsibility for their own individual actions, and resilience.
- For everyone within the school to have a sense of wonder, an enthusiasm for learning and help children to develop as independent thinkers and learners with enquiring minds.
- To encourage and develop a respect and understanding for others.
- To develop all partnerships, small and large, from the individual parent to the wider community and beyond to support children’s learning.
- To give children access to a broad and balanced creative curriculum to attain the highest possible standards in relation to prior attainment through assessment, teaching and learning.

### Equal opportunities and Inclusion

At Brady Primary school we believe that every child is entitled to equal access to the curriculum, regardless of race, gender, class or disability.

We are committed to promoting learning and teaching environments, for all that embed the values of inclusive educational practices.

Through a child-centered approach, we aim to ensure that education is accessible and relevant to all our learners, to respect each other and to celebrate diversity and difference.

### Rationale

At Brady we aim to inspire all children to reach their full academic potential. In mathematics, this means ensuring a curriculum that is fully inclusive of all children which:

- Develops children’s knowledge and understanding of Mathematical concepts whilst enabling them to practice and hone skills and methods;
- Enables them to think critically and communicate their understanding;



- Gives them opportunities to apply learnt mathematical skills in different contexts across the curriculum.
- Gives children a secure understanding of a range of mathematical vocabulary, which is used consistently across the school.
- Provides opportunities to develop reasoning skills useful for maths and across the curriculum. As a result of their learning in mathematics and application across the curriculum children will:
  - Be prepared for applying their skills effectively in everyday life situations, in their future learning and in the work place.
  - Have the building blocks in place and to provide a solid foundation to lead onto secondary, further and higher education.
- To ensure children are able to use a wide range of reasoning skills through the use of our challenge system.

### Planning

- Planning begins from a thorough understanding of children's needs gleaned through effective and rigorous assessment and tracking, combined with high expectations and ambition for all children to achieve.
- Medium term planning will outline the areas of mathematics that will be taught during the term to ensure coverage of the National Curriculum, supported through the Inspire Maths scheme and curriculum target maps.
- Within short term planning, the challenge system will be used to allow children to follow a clear, systematic teaching sequence. This will clearly demonstrate the progression required to reach and exceed the age related expectations. (See Appendix A)
- Using the challenge system removes limits for all, allowing all children to have the opportunity to achieve their full potential. Some children may require further teacher input whereas others may work independently giving them time to develop their understanding of the concepts taught.
- Planning, where possible, should involve real life contexts for maths, where children are problem solving with a purpose in mind.
- Class teachers should regularly plan for opportunities for children to apply their maths skills to different problems within maths lessons and across the curriculum. This will also allow children to revisit, practice and consolidate different areas of maths and apply them within different contexts.

### Teaching

- In the Foundation Stage, children are given the opportunity to develop their understanding of number, measurement, pattern and shape and space through a combination of short, formal teaching as well as a range of planned structured play situations, where there is plenty of scope for exploration.



- Children will become very competent ‘counters’ so that their fluency with the number system provides a foundation for mathematical understanding. Counting forwards and backwards in many different sized steps as well as from different starting and ending points is essential.
- Maths learning builds from a concrete understanding of concepts where children are manipulating objects. When children are able to see concepts this way, they then need to understand the same concepts represented pictorially. Children are then ready for abstract representation before being able to apply their knowledge to different situations. For example: using concrete objects to calculate word problems to using pictorial representations and finally completing mentally.
- Children should be encouraged at all times to communicate their understanding of maths so that it clarifies their thoughts.
- Children’s mental maths is crucial, with number bonds, times tables and related division facts of high importance. Various strategies for calculation are taught and practiced at school with support sought from parents through homework activities.
- A progression towards efficient written calculations should be developed and applied consistently in each year-group. The school Calculation Policy should be followed.
- Year group target maps should be used to ensure areas, where the majority of the class have not grasped a concept, can be revisited and mastered.
- Though the nature of lessons will be very different depending on the needs of the class, children should be: active; practicing skills they haven’t yet mastered (perhaps recapping on class targets); learning something new OR learning to apply their knowledge to different contexts.

They should be: ‘doing’ very quickly; working at a good pace and being productive; sharing their thoughts and methods and being successful.

### Assessment

- Assessment for learning should occur throughout the entire maths lesson, enabling teachers/teaching assistants to adapt their teaching/input to meet the children’s needs. This feedback should be incisive and regular.
- Regular assessment should allow for groups to be flexible, allowing all children to receive further support or consolidation when needed.
- On a daily basis children should self-assess against the learning objective and success criteria, giving them a sense of success. Children should know when they are meeting their targets and be self-assessing against those too.
- Pupil’s work should be marked in line with the Marking Policy and should model how corrections should be made, giving children a chance to learn from their misconceptions or incorrect methods.



- Future lesson design should depend on class success evaluated through marking and observations made during the lesson.
- Assessment of pupil work and progress is ongoing by the class teacher and informs future planning. Teachers mark work in line with the school marking policy. Teachers use target tracker, which allows them to assess children's progress in mathematics, gathering evidence over the course of the year. Teachers use this information to inform planning for groups and individual pupils.
- Summative assessments are made at least once per half term in order to provide further understanding of each child's needs, this will allow a more rounded judgement of their abilities to be made. Formative assessments are termly.
- Tracking is used in order to ensure that children who are not making good progress over time can be targeted for support in one form or another. What that support will be and how intensive, depends upon the child's needs and it may be a simple strategy within whole class teaching that is needed. Where further support is deemed necessary, children can access interventions, explained below. Pupil progress meetings are held once per half term in order to track and monitor children's progress.

#### Display and Resources

- In the classrooms there should be, either on display or easily accessible to children, level appropriate resources, particularly concrete and pictorial apparatus to support children to grasp concepts.
- Mathematical vocabulary should be displayed so that children use this in the communication of their understanding.
- There should be a maths working wall in each classroom. This will be updated during the course of lessons to hold all of the relevant information for the current areas of maths being taught. Maths learning must also be visible in other areas of the school in order to encourage a positive attitude and enthusiasm towards mathematics for all groups of children.

#### Guidance for Teachers and TAs

- Class teachers should complete medium term plans which will consist simply of objectives that they plan to teach during the term (based on their understanding of what children need to learn next). From this, weekly short term plans should be completed using the agreed pro-forma.
- When planning, class teachers should refer to the target maps. Target maps should be in the front of children's books so that teacher assessment and self assessment can take place.
- Maths should be taught every day (KS1 – 60 minutes, KS2- 60 minutes a day).
- No single scheme is used, however, resources are drawn from Abacus, Inspire maths and White Rose maths, amongst others, to support with the teaching of Mathematics.



- Early work during registration times should be set up by the class teacher so children can revisit, practice and consolidate previously learnt areas of maths, as well as responding to feedback.

Monitoring:

Monitoring of children’s progress begins with performance review meetings but continues with the subject leader evaluating further evidence to ensure children are making progress. This monitoring happens through examination of work in books, pupil voice, analysis of assessment results and the assessments used, and through other means depending on what information needs to be gleaned. Following monitoring activities feedback is given to staff about how they can strengthen their practice and CPD (professional development) opportunities are built in where it would be deemed valuable. These might take the shape of inputs during staff meetings or by a variety of other means. Where specific initiatives have been put in place through action planning for school development, these are monitored by the subject leader in order to evaluate their impact. Findings are reported to the Head teacher and governors through use of the ‘Subject Leader’s Ongoing Report’. The success of interventions is also monitored by the SENCO and this informs future planning of intervention.

Review

This policy will be reviewed .....by ..... Any alterations that come from this review will be discussed with the Headteacher and ratified by the teaching staff and appropriate governing body sub-committee.

Chair of Governors ..... Date .....

Headteacher ..... Date .....



## APPENDIX A

- **The first box is the 'I Can' for the learning the children will be completing in that lesson.**
- **It will also include either a key success criteria for achieving the task or the relevant targets from the target map.**

### Challenge 1

- **Challenge 1 is used to practice the arithmetic skill that the children are being taught in that lesson.**
  - **This is a chance for the children to practice the skill in isolation to ensure understanding of the method.**

### Challenge 2

- **Challenge 2 is the first of the reasoning challenges; this and the stickers that follow help us to access reasoning in every lesson.**
- **This is created by changing the focus of the work to find different ways to practice the skills.**

### Challenge 3

- **Challenge 3 is the end of year expected standard for that year group.**
- **It gives the children chance to access on a daily basis work at the level they need to reach for their age group.**

### Mastery challenge

- **The mastery challenge is the exceeding challenge; this is designed to make the children think about the work they have been completing in a different way.**
- **It is not used to push them further in content but used to add depth to their knowledge.**
- **The final box each day consists of a self-assessment. This will be used to make the children think about the work they have completed and the key next steps for themselves.**
  - **It may also be used as an opportunity to complete peer work and peer assessment.**