



Brinsley Primary and Nursery School

Mathematics Policy

Updated: September 2022 by B Elliott

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Policy for Mathematics

Intent- Why do we teach maths the way we do?

At Brinsley Primary School, we are committed to ensuring that all children are able to recognise the importance of maths in the wider world and that they are also able to use their mathematical skills and knowledge confidently in a range of different contexts. Our curriculum is designed to be accessible to all and will maximise the development of every child's ability and academic achievement. We intend for our children to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

Aims

- To ensure all staff, children, parents/carers and Governors are aware of the aims for learning and teaching mathematics at Brinsley Primary and that these are consistently applied.
- To develop an enjoyment of learning through practical activity, investigation, exploration; mental calculations and discussion;
- To develop confidence and competence with numbers and the number system;
- To develop their mathematical fluency by solving problems through connecting ideas, decision-making and applying their mathematical skills in a range of contexts, including other subjects across the curriculum;
- To develop the ability to reason mathematically by following a line of enquiry, developing an argument and making justifications using mathematical language;
- To develop a practical understanding of the ways in which information is gathered and presented;
- To explore features of shape and space, and develop measuring skills in a range of contexts;
- To understand the importance of mathematics in everyday life, especially in relation to essential life skills such as telling the time and handling money; and
- To foster positive attitudes towards mathematics by developing pupil's confidence, independence, persistence and co-operation skills.

Parents and Carers

- To be understanding and supportive of our aims in learning and teaching mathematics.
- To attend and contribute to Parent Consultation Meetings.
- To support their children with mathematics homework activities (please refer to Homework Policy) including the importance of learning

their number bonds and encouraging them to access Times Tables Rock Stars.

- To praise their children for the good things that they do in Mathematics.
- To communicate and work with School whenever further support is needed to develop their children's mathematical skills and understanding.

Implementation- how do we teach maths?

Foundation Stage

- Our Foundation Stage teachers use the Early Years Foundation Stage Statutory Framework alongside the Early Years Outcomes to support their teaching of Mathematics.
- The scheme that we follow in EYFS is 'Master the Curriculum' – which follows the '5 big ideas' (NCETM) in the teaching of mathematics and supports White Rose Maths.
- The children have the opportunity to talk and communicate in a widening range of situations and to practise and extend their range of vocabulary and mathematical skills.
- The children explore and investigate number and shape, within different areas of the classroom through play-based activities and using problem solving in a practical way.
- Mathematics is planned on a weekly basis and assessed using the criteria from the Early Years Outcomes. This is recorded on O'Track.
- Mathematics is taught both as a discrete subject (20-30 minutes per day) and within the environment to give children opportunities to use their mathematical skills in real life situations.

Key Stage 1 and 2

- The National Curriculum for Mathematics (Programmes of Study) 2015 is followed. Our KS1 and KS2 teachers follow the White Rose Maths scheme, which follows the CPA approach and supports all children through a structured programme of study.
- White Rose Maths workbooks are used to support this teaching and, over the course of the academic year, all units of the National Curriculum are covered.
- The short-term planning is done weekly, listing the specific learning objectives that are to be covered in each year group class for each lesson that week.
- Mathematics will be taught using the mastery approach but will ensure that LA have support with resources and HA children are pushed through the use of questioning and extension tasks where appropriate.
- If the needs of the children are best met following an alternative plan, which deviates from the National Curriculum 2014, then the class teacher, SENCO and the Subject Leader discuss this and decide on a way forward.

- Children in KS1 and KS2 are taught Mathematics for approximately 1 hour daily.
- Children from year 2-year 6 also use Times Tables Rock Stars to improve the rapid recall of multiplication facts.
- Small group booster tuition is provided in Year 6 to support children's learning and progress.

Calculation Policy

- Our teachers are asked to follow the models set out in the school's Calculation Policy when teaching calculation.
- Our Calculation Policy explains the key written methods that need to be taught in each year group, to support the planning, delivery and assessment of learning and teaching in Mathematics and to ensure consistency and progression across the School.

Cross curricular

Opportunities are used to draw mathematical experiences out of a range of activities in other subjects, such as in PE, Science and other subjects across the curriculum, to enable children to apply and use mathematics in both real life and academic contexts. This ties in with the Focus Curriculum which KS1 and 2 follow.

Provision for Gifted and Able students

In each year group Gifted and Able students are identified and, learning is extended in order to deepen their understanding of mathematics through daily maths lessons.

Inclusion (please refer also to the School's Inclusion Policy)

- Inclusion is about every child having educational needs that are special and the School meeting these diverse needs in order to ensure the active participation and progress of all children in their learning.
- Inclusive practice in mathematics should enable all children to achieve their best possible standard; whatever their ability, and irrespective of gender, ethnic, social or cultural background, home language or any other aspect that could affect their participation in, or progress in their learning.

Resources

- The use of Mathematics resources is integral to the concrete – pictorial – abstract approach and thus planned into our learning and teaching.
- We have a wide variety of good quality equipment and resources, both tangible and ICT based, to support our learning and teaching.

These resources are used by our teachers and children in a number of ways including:

a) Demonstrating or modelling an idea, an operation or method of calculation, e.g.: a number line; place value cards; dienes; money or coins; measuring equipment for capacity, mass and length; bead strings; the interactive whiteboards and related software; 3D shapes and/or nets; Numicon; multilink cubes; clocks; protractors; calculators; dice; number and fractions' fans; individual whiteboards and pens; and 2D shapes and pattern blocks, amongst other things;

b) Enabling children to use a calculation strategy or method that they couldn't do without help, by using any of the above or other resources as required; and

c) Providing a context, for the application and practise of calculation strategies and number skills.

- Standard resources, such as number lines, multi-link cubes, dienes, hundred squares, shapes, etc. are located within individual classrooms.
- Resources within individual classes are accessible to all pupils who should be encouraged to be responsible for their use.
- Further resources (often larger items shared by the whole school) are located in the Resource Room.
- A range of Mathematics related software is also available and this is accessible via the shared server, which children can access when projected onto the Interactive Whiteboards in each classroom and by using individual class-based laptops.
- Teachers are encouraged to use the school playgrounds as an outdoor classroom when possible, for example, when teaching length, area or perimeter.
- Teacher's resources are largely based on the Abacus Active Learn Website, which can be accessed online.

Parents/Carers

- The School aims to involve parents/carers in their children's learning as much as possible and to inform them regularly of their child's progress in Mathematics.
- Parents/carers have the opportunity to meet with child's class teacher at least twice a year at Parent Consultation Meetings and receive written reports during the year.
- Parents/carers are encouraged to speak to their child's teacher at any point during the year, either informally or by making a specific appointment.

- Information about their child's standards, achievements and future targets in mathematics is shared with parents/carers at these times and also ways that parents/carers may be able to assist with their child's learning.
- Parents/carers are encouraged to support their children with homework.

Impact- how will maths be monitored?

Assessment, Record Keeping and Reporting (please refer to the School's Assessment and Teaching and Learning Policies)

1. Teacher's feedback to children is on-going through verbal feedback during maths lessons.
2. Marking of children's work is clear and concise and misconceptions are identified. Children are given opportunities to 'fix' their mistakes.
3. Assessments are used diagnostically by teachers to evaluate learning and inform teaching. At the end of each term, teachers assess children's mathematical knowledge using White Rose Maths End of Unit Assessments. Formal NFER assessments are administered in the Summer term.
4. Children's standards and achievements in Mathematics in the Foundation Stage are assessed in line with the School's Foundation Stage Policy. Assessment in Foundation Stage includes both on-going assessment and marking of children's work as noted above but at an age appropriate level. The Foundation Stage Profile is used to assess children throughout and at the end of the academic year.
5. Assessment information for mathematics, both standards and achievements, are shared with parents/carers at Parent Consultation Meetings. Mathematics is reported on in detail in each child's School Report, which includes information about the next steps for learning in the subject.

Subject Leader

- The role of the Subject Leader is to provide professional leadership and management in mathematics in order to secure high quality teaching, promoting the effective use of resources and high standards of learning and achievement for all pupils.
- Monitoring strategic direction and development; learning and teaching (including planning and marking and presentation); leading and providing training for staff; and efficient and effective deployment of staff and resources.

- The Subject Leader has regular discussions with the Head Teacher and other senior leaders about learning and teaching in Mathematics and provides a summary report, action plan and up to date policies. They help to develop the school SIP and SEF.
- The Subject Leader will also be part of the observation monitoring cycle alongside The Head Teacher.
- The Subject Leader will teach maths across school to gain a broader understanding of expectations in different year groups.
- Promote the use of Times Tables Rocks Stars to ensure that children are regularly accessing the programme and print out certificates on a weekly basis to ensure that achievements are rewarded.

Monitoring and Review

- The Head teacher, Senior Leadership Team and Mathematics Subject Leader will monitor the effectiveness of this policy on a regular basis. The Head teacher and Mathematics Subject Leader will report to the governing body on the effectiveness of the policy and, if necessary, makes recommendations for further improvements

Governors

Governors will:

- a) Receive a report from the Maths Coordinator which will inform Governors of;
 - ❖ the school's systems for planning work, supporting staff and monitoring progress;
 - ❖ the allocation, use and adequacy of resources; and
 - ❖ how the standards of achievement are changing over time.
- b) Visit School and talk to pupils about their experiences of mathematics;
- c) Promote and support the positive involvement of parents in mathematics;
- d) be understanding and supportive of our aims in the learning and teaching of mathematics and to review this policy

