



Brinsley Primary and Nursery School
Learn today, be a star of tomorrow

School Policy for

Mathematics

Person Responsible: Mrs Natalie Sisson

To be reviewed: January 2019

Introduction

Mathematics teaches children how to make sense of the world around them through developing their ability to use number, calculate, reason and solve problems. It helps children to understand relationships and patterns in both number and space in their everyday lives. The Mathematics curriculum should be bold, provide breadth and balance and be relevant and differentiated to suit the needs of all children in the modern world. It should be flexible, motivating all pupils, thus encouraging success at all levels.

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 the ability to solve 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 times tables off by heart.
- 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.

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.

Implementation of the Mathematics Policy

1. Foundation Stage

- Our Foundation Stage teachers use the Early Years Foundation Stage Curriculum to support their teaching of Mathematics in the Foundation Stage.
- 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, enjoy, learn about, and use Mathematics in a range of personalised situations.
- Mathematics is planned on a weekly basis and assessed using the criteria from the Early Learning Goals.
- Mathematics is taught both as a discrete subject (20-30 minutes per day) and within the whole Early Years Curriculum to give children opportunities to use their mathematical skills in real life situations.

2. Key Stage 1 and 2

- The National Curriculum for Mathematics (Programmes of Study) 2015 is followed. Our KS1 and KS2 teachers use Maths No Problem and White Rose Scheme of Work, which is aligned with the National Curriculum 2014, to support their planning and delivery of Mathematics teaching.
- The Maths No Problem planning and work books are used to support this teaching and, over the course of the academic year, all units of the National Curriculum 2014 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.
- Teaching and learning is differentiated to best match the needs of the class and the individuals within it.
- If the needs of the children are best met following an alternative plan, which deviates from the National Curriculum 2015, then the class teacher 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 in KS2 also use TIMES TABLES Olympics to improve the rapid recall of multiplication facts.

- 1-2-1 tuition is provided in Year 6 to support children's learning and progress.
- Booster Sessions are provided after school for Year 2 & 6 in the lead up to SATs, to prepare children for SATs and to encourage their learning and progress.

3. 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.

4. 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 Cornerstones Curriculum KS1 and 2 follow.

5. 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.

6. 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.

7. Homework (please refer to the School's Homework Policy)

Mathematics homework is set for children in Years 1-6 each week.

Homework provides opportunities for children to: practise and consolidate their skills and knowledge; develop and extend their techniques and strategies; and prepare for their future learning through out of class activities and homework.

Homework activities are varied, interesting and fun so that the children are motivated; the tasks often compliment the area of Mathematics being taught that week.

8. 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 Mathematics 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.
- The Year 2 & 6 teachers annually hold a SATs Parent's Evening to inform and discuss the SATs tests in Mathematics.

9. Subject Leader

- The role of the Subject Leader is to provide professional leadership and management in Mathematics in order to secure high quality teaching, effective use of resources and high standards of learning and achievement for all pupils.
- They will achieve this by 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.

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

- Children's standards and achievements in Mathematics are assessed in line with the School's Assessment Policy. Assessment in Mathematics for Years 1-6 includes:
 1. On-going Assessment for Learning (AfL) practices within class and group sessions, including the sharing of and reference being made to Learning Goals/Objectives and Next Steps and self and peer assessments of understanding, outcomes and progress;
 2. Marking of children's work; against the shared Learning Goal/Objective and for accuracy of answer (for all written work) and diagnostically (regularly in line with School expectations) including clear next steps to consolidate or progress the child's Mathematical understanding;
 3. At the end of each term the White Rose Maths Assessment tests are used to gain a Summative Assessment of Learning (AoL)
 4. There are teacher assessments each half term against each year groups National Standard expectations for Mathematics and these are recorded using the Learning Ladders Assessment.
- 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.

- Assessments are used diagnostically by teachers to evaluate learning and inform teaching and by teachers and senior leaders within the Accountability Process to evaluate individual and groups of children's standards and achievements and provision and to inform future provision and school development.
- 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.

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.

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