

Written in December 2023	Matt Beeston (Maths leader)

Ethos

At Stapeley Broad Lane CE Primary School we are committed to:

- providing a safe nurturing environment where every child can achieve his/her full potential
- inspiring a lifelong love of learning
- valuing all faiths and cultures and to celebrate diversity
- developing a sense of respect and responsibility towards self, others and the world in which we live
- building strong relationships with the local community, our city and the wider world

And to do all this as a caring community based on strong Christian values.

THE NATURE OF MATHEMATICS

"Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject."

(The National Curriculum for Mathematics 2014)

At Stapeley Broad Lane we believe that Mathematics is a tool for everyday life. It is a whole network of concepts and relationships which provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems. It also provides the materials and means for creating new imaginative worlds to explore.

Using the Programmes of Study from the National Curriculum for Mathematics we aim to develop:

- An enjoyment and curiosity of mathematics and for children to feel confident to become successful;
- Children's abilities to use and apply mathematics to solve problems in both the classroom and in 'real life' contexts;
- A confidence to communicate ideas in written form and orally;
- Independent and collaborative ways of working, encouraging children to share ideas and solve problems together;
- A wide range of mathematical vocabulary to be modelled and used in the classroom environment;
- The children's ability to recall mental facts accurately and quickly and using effective written calculation methods;
- Children's logical thinking, reasoning and ability to problem solve as transferable life skills.

Teaching and Learning

Each class teacher is responsible for the mathematics in their class in consultation with and with guidance from the mathematics subject leader. There is a daily mathematics lesson of between 45 and 60 minutes. A typical lesson involves all classes following the White Rose Scheme of learning which focuses on small steps to build deep understanding and, ultimately, mastery of the subject.

During these lessons children engage in:

- The development of mental strategies
- Written methods
- Practical work
- Investigational work
- Problem-solving
- Mathematical discussion using precise mathematical language.
- Consolidation of basic skills and routines

In addition to the daily maths lessons, teachers will provide regular opportunities to practice instant recall of facts to help develop fluency. Children have opportunities to practise these via online platforms such as TT Rockstars and White Rose '1 minute maths'.

Teachers of the EYFS ensure the children learn through a mixture of adult led activities and child initiated activities both inside and outside of the classroom. Areas of provision within the classroom support maths, ensuring children are able to access throughout the day to practise and develop skills being taught. In addition consistent, daily maths lessons take the form of direct teaching, which is followed up by enhanced activities placed in areas of provision in the classroom which may be accessed independently or supported by an adult.

Children's Records of Work

Children are taught a variety of methods for recording their work and they are encouraged and helped to use the most appropriate and convenient method of recording. Children are encouraged to use mental strategies before resorting to a written method. All children are encouraged to work tidily and neatly when recording their work. When using squares one square should be used for each digit.

All year groups (from Y1 – Y6) use White Rose Maths books and supplement this with exercise books for other related learning. EYFS record informally within the setting. For example: - on the playground - on whiteboards - using jigsaws - physically ordering numbers. Staff in EYFS use photos to ensure records of each child's achievements are maintained.

Planning

The National Curriculum for Mathematics 2014 and The Early Years Framework provide the long term planning for mathematics taught in the school.

Years 1-6 use the White Rose scheme of learning as its medium term planning. This provides a detailed, structured curriculum which is mapped out across all phases, using small steps to ensure continuity and supporting transition.

EYFS planning is based on the Early Years Framework, supported by White Rose mathematics planning.

Short term planning is done by staff in their own format. These plans identify the areas of learning and lesson objectives; key vocabulary and resources; teaching input and activities; and deployment of additional adults.

Resources

The National Curriculum for Mathematics 2014 is our main planning and teaching resource, learning objectives for teaching in the daily maths lesson will be from this.

In order to support the delivery of maths lessons to all children the school has a large range of resources available. Within the classroom maths resources are available to children at all times, these include basic resources such as number lines, 100 squares, rulers, counters, numicon, etc. Other specific resources (eg, balance scales, meter rulers) are made available as required.

We recognise the importance of a stimulating learning environment. The school provides an environment, which is rich in a wide variety of print, pictures, diagrams, charts, tables, models and images. Each classroom has a mathematical display area, which includes a working wall with mathematical vocabulary, visual aids and interactive activities where appropriate. This is updated regularly in accordance with the area of maths being taught at the time.

Assessment, Feedback and Record Keeping

<u>Short term</u>

Children's classwork is assessed frequently through regular marking, analysing children's errors, questioning and discussion. Children's work is marked and feedback is given when necessary in line with the marking and feedback policy.

Medium Term

Each term children in class 1-6 are assessed using the NFER maths tests. (Y1 use the PUMA test in the Autumn term). These materials are used alongside judgements from class work to form a teacher assessment for each child. These judgements are then uploaded to the whole school tracking system for all year groups, including EYFS.

Long Term

The following tests are also carried out annually:

- > SATs at the end of Y6
- The children are assessed in the early years using the Baseline Assessments and Foundation Stage Profile (Early Learning Goals)

Contribution of Maths to teaching in other curriculum areas

Mathematics is a tool for everyday life. It is a network of concepts and relationships and is used to analyse and communicate information and ideas in practical tasks and problems. By making links to other subjects at the initial planning stage we aim to provide real context in which to apply skills taught during the maths lessons.

Inclusion

Children with special educational needs:

- Within the daily mathematics lesson, teachers adapt activities to support children who find mathematics difficult. Children with SEND are taught within the daily mathematics lesson and are supported to take part at their level through the support of a Teaching Assistant and appropriate activities and resources (adaptive teaching).
- Where applicable, SEN paperwork will incorporate suitable objectives from the Maths curriculum.
- Intervention Groups will take place at times throughout the year, in order to give further support to vulnerable groups.

All children at Stapeley BL have an equal entitlement to access the Maths curriculum and make progress in order to attain the best they can in the subject.

Monitoring Teaching and Learning

This will be undertaken by the Subject Leader and other members of SLT.

Results of any monitoring will be fed back to staff quickly and to SLT at their meetings so that any action required can be carried out effectively.

Roles and Responsibilities

1. Subject Leader:

- Supports teachers in their planning and teaching;
- Lead by example in the way they teach in their own classroom;
- Prepare, organise and lead INSET, with the support of the Head teacher;
- Work co-operatively with the SENco;
- Monitor different aspects of maths teaching and learning feeding back to SLT and staff on findings and future actions.
- Attend INSET;
- Be available to discuss with the head teacher, class teachers, parents and Maths governor, the progress of maths in the school.

2. Class Teachers:

- To deliver a Daily Maths lesson to their children which is engaging and motivating, is informed by the National Curriculum for Mathematics 2014 and is accessible to all children.
- To deliver termly assessments and use the materials to form judgements of childrens abilities based on assessments and classwork.

3. Children:

• To develop their skills, understanding and attainment in Maths through engagement with the lesson, behaviour conducive to learning, independent work and thought and confidence to challenge or ask for help.

4. **Parents / Carers:**

• To support their children's learning in maths by taking an interest in their child's progress, encouraging the children to complete maths homework and having a good relationship with the class teacher so that queries and problems regarding maths can be dealt with easily.