



This policy outlines the purpose, nature and management of the mathematics taught at SEAC. The implementation of this policy is the responsibility of all teaching staff.

AIMS

Our aims in mathematics teaching are:

- To enable pupils to become fluent in the fundamentals of mathematics, so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- To foster positive attitudes towards mathematics by developing pupils' confidence in using mathematical equipment and vocabulary, and through developing their mental strategies.
- To develop the ability to reason mathematically and solve problems, by following a line of enquiry and being able to justify or prove their work using mathematical language.

TEACHING AND LEARNING

FOUNDATION STAGE

The EYFS 2012 has 3 Prime and 4 Specific areas of learning. The Prime areas of Physical Development, Communication and Language and Personal, Social and Environmental Development underpin the specific, of which Maths Development is one, providing the building blocks for all future learning.

The area of Mathematical Development is further split into two strands; Number and Space, shape and measures. These two strands cover all aspects of early prerequisite maths skills. The 'Number' strand covers counting and recognising numbers, ordering numbers to 20, addition, subtraction and multiplication in its simplest form. The 'Shape, space and measures' strand focuses on 2D and 3D shapes and their properties, patterns, simple measures, time, money, and capacity. Both strands of Mathematical Development include problem solving and encourage children to explore maths in meaningful everyday contexts.

Mathematical Development is taught in Foundation Stage using a variety of hands on, kinaesthetic and meaningful experiences, which focus on real life resources and scenarios. Through this approach young children learn that Maths skills are needed in daily life and develop them through carefully constructed play based learning activities. In Foundation Stage 2 children's learning towards the ELG links into the National Curriculum to extend and add breadth to their learning and prepare them for Key Stage One.

KEY STAGE 1 AND 2

The National Curriculum for mathematics (2014) and the Early Years curriculum in the EYFS describes in detail what pupils must learn in each year group. Combined with the Leek Education Partnership Four Operations Calculation Policy, this ensures continuity, progression and high expectations for attainment in mathematics.

- A high priority will be given to the teaching and consolidation of mental strategies.
- Teachers will take every opportunity to ask open questions.
- They will probe and challenge answers and where appropriate ask for alternative strategies or explanations. This will enable children to develop a deeper conceptual understanding of mathematics.

- They will seek to ensure that every child has the opportunity to problem solve and reason with their mathematical knowledge on a regular basis.
- Teachers will respond to individual needs by carefully targeted questioning and activities.
- Teachers will devise work, which through differentiation or differentiation of approach, will seek to include every child in the class.
- Written methods of calculation will be taught in accordance with the LEP Four Operations Calculation Policy for the new national curriculum.
- Teachers will use a range of ICT resources to enhance their Maths teaching and the children will be given regular access to ICT to reinforce and consolidate their Mathematical learning.
- Class targets for mathematics are identified, discussed and shared with children and parents at the start and end of a term.

It is vital that a positive attitude towards mathematics is encouraged amongst all pupils in order to foster confidence and achievement in a skill that is essential in our society. We are committed to ensuring that most pupils achieve mastery of the key concepts of mathematics, appropriate for their age group, in order that they make genuine progress and avoid gaps in their understanding that provide barriers to learning as they move through education. Assessment for Learning, an emphasis on investigation, fluency, reasoning and problem solving, the development of mathematical thinking and development of teacher subject knowledge are therefore essential components of our approach to this subject.

PLANNING

Mathematics is a core subject in the National Curriculum and we use the objectives from this to support planning and to assess children's progress. Staff use long term planning to ensure coverage of all areas of the National Curriculum and weekly planning to differentiate objectives according to their class. These weekly plans list the specific learning objectives for each lesson, differentiated activities, use of the TA and focused teaching groups, vocabulary and also give details of how the lessons are to be taught. The class teacher keeps these individual plans, which they annotate according to the outcomes of the lesson.

ASSESSMENT

This section details the various assessment methods and practices used at SEAC through which we ensure that children are making appropriate progress and that the activities they take part in are suitably matched to their ability and level of development.

Formative Assessment (AfL) - (monitoring children's learning) Assessment is an integral and continuous part of the teaching and learning process and much of it is done informally as part of each teacher's day to day work. Teachers integrate the use of formative assessment strategies such as: effective questioning, clear learning objectives, the use of success criteria, effective feedback and response in their teaching and marking and observing children participating in activities. Children not reaching/exceeding lesson objectives are noted on short term plans and weekly planning is altered to reflect these children's needs.

Summative Assessment - (evaluating children's learning) More formal methods are used to determine the levels of achievement of children at various times during the school year:

Assessment Weeks: We use half termly assessments as a way of recording children's progress in objectives covered across that specific term. This information is then updated on the LEP Maths Grids. Children are monitored via Pupil Progress meetings. If required appropriate strategies are put in place to address specific needs.

Standardised Testing -GL standardised tests are used twice a year. They allow SEAC to measure each child's attainment in all areas of mathematics, and compare this with children of that age nationally. The results are used to monitor individual's progress year on year and to inform teachers' planning and delivery.

Statutory End of Key Stage Assessment - Throughout the Foundation Stage children's progress in Maths is tracked using the Developmental Matters ages and stages. Maths activities are planned accordingly in order to promote challenge and success for all abilities. At the end of the Foundation Stage, children are assessed against the Early Learning Goals for the two strands of Mathematical Development alongside the other goals; they can achieve Emerging, Expected or Exceeding with regards to each goal. Children who achieve at least an 'Expected' progress and have therefore been deemed to have met the ELG in terms of a best fit judgement can go on to achieve a 'Good Level of Development' or GLD if they also reach at least Expected in ALL the prime area goals and the Literacy goals.

The National Curriculum requires that each child is assessed for each of the Attainment Targets in Mathematics. This is to be carried out at the end of Key Stage One (Year 2) and at the end of Key Stage Two (Year 6). In Year 2 the children are required to answer questions on the four operations and show how they can reason and solve problems. These are mainly number problems but children also need to show understanding of measurement and shape.

RESOURCES

The Maths curriculum is based around the Abacus Maths Scheme where planning, activities and assessments can be obtained through the online resource. We also have textbooks to compliment activities when needed. Each class has basic apparatus/equipment appropriate and relevant to the ability of the children. Other resources such as balances, large measuring equipment, shape and measures are kept in the central resource area. Games and puzzles are used in all classes as supplementary teaching resources. Numicon equipment is used as a practical resource in all Key Stages and for intervention. The outdoor environment, hall and playgrounds are used to enhance the children's experiences of real life maths. RMeasimaths is used regularly to provide a personalised programme of support for all children. 123 Maths is used in KS1 (paper based) and in KS2 (online) as an intervention programme for children who are 'stuck'.

EQUALITY OF OPPORTUNITY

In keeping with the Equalities Act 2010, we uphold equal opportunity to learn and make progress in Mathematics. Regardless of individual needs or obstacles to learning, we strive to ensure that all children are given equal chance to succeed. Where children struggle to understand and apply mathematical learning, specific strategies/programmes of support are put in place in consultation with the SENco. If a child has EAL, then we seek advice from LA specialists. For our more able children, we put in place specific programmes to challenge and extend their mathematical capabilities e.g. a child may 'join' a year group above depending on their particular need.

MONITORING

The monitoring and evaluation of Maths will be undertaken in line with the Action Plan and School Improvement Plan, linking it to quality of teaching, learning and achievement.

Moderation of the standards of children's work and of the quality teaching in mathematics is the responsibility of the mathematics subject leader alongside members of the senior leadership team. The work of the mathematics subject leader also involves supporting colleagues in the teaching of mathematics, keeping informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. The mathematics subject leader gives the Principal and Governors a termly report in which strengths and weaknesses in the subject are evaluated and areas for further improvement are indicated. A named member of the school's governing body is briefed to oversee the teaching of maths. This governor liaises regularly with the subject leader to review progress and comments on the termly report.