



Policy for Maths

Intent

The core intention of the maths curriculum at Southgate School is to provide consistent and meaningful exposure to maths every day through exciting, hands-on and relevant learning opportunities. We understand that learning for pupils with complex needs is not linear and so we take an adaptive, reflective yet progressive approach to ensure our pupils achieve their full potential.

We aim to achieve this through:

- Promoting enjoyment and enthusiasm for mathematical learning through practical activity, exploration and discussion.
- Understanding individual communication needs and how we can support learners to develop mathematical vocabulary irrespective of communication difficulties.
- Developing an understanding of the importance of maths in everyday life and how to apply mathematical skills to foster and support independence.
- Improving learners' ability to solve problems through decision-making and reasoning in a range of contexts.
- Providing appropriate yet aspirational accreditation opportunities to prepare our pupils for adulthood.

Implementation

Maths is a core subject in the National Curriculum and is delivered as a dedicated subject in each class, every day. Dependent on the stage of development a pupil is learning at, this may be called 'My Problem Solving' or 'Maths and Problem Solving'. However, at Southgate School we recognise the importance of contextual learning and overlearning for pupils with complex needs and so maths is an integral part of many other curriculum areas such as Physical Education, Food Technology and Science to name just a few.

At Southgate School the subject of maths is grouped into three key areas of learning, which all pupils experience every half term. These are:

- **Operations;** developing a secure understanding of number, the four mathematical operations and fluency with the application of these skills in wider contexts.
- **Shape, Space and Measure;** developing measuring skills in a range of contexts, understanding the properties of shape and using position and direction.
- **Functional Maths;** developing confidence to apply maths to real life contexts including money, fractions and statistics.

Teachers design lessons so that there is a carefully sequenced journey beginning with recapping previous learning, then introducing the new concept, identifying difficult points and possible misconceptions. Children are challenged through careful questioning and supported through the use of concrete materials and visual representations to develop a deep conceptual understanding. Our pupils are all taught through a **concrete, pictorial, abstract** approach to maths based on Jerome Bruner's work, pupils learn new concepts initially using concrete examples, such as counters, then progress to drawing pictorial representations before finally using more abstract symbols, such as the equals sign (See Southgate Calculation Policy). We are supported in our planning and teaching with the White Rose Maths schemes of work.

Communication is a key part of every maths lesson, and pupils are supported to not only show their understanding practically or mathematically but to communicate this too, using mathematical



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vocabulary where possible. The school's Communication lead supports teachers to develop maths vocabulary where necessary, especially those earlier in their development when obtaining understanding of key mathematical concepts such as before, after, prepositional language, more/less etc.

Impact

Pupils are assessed continuously in every lesson to inform teachers of both what individuals require to achieve and understand during that specific lesson, but also what their next steps of learning will be. This daily formative assessment then feeds into weekly reviews where teachers are able to adapt and tailor their planning on reflection of the learning that week. This gradual collation of assessment information is then used to formally assess pupils every term using PIVATS 5 in the areas of:

- Number
- Shape, Space and Measure
- Using and Applying Skills

At the start of every academic year, aspirational targets are set for pupils. The maths lead monitors these to ensure this follows a consistent path of progression from starting points to end of Key Stage targets.

Termly assessment data is monitored and evaluated by senior leaders and the maths lead to identify trends and pupil priorities. Where pupils are identified as making insufficient or no progress, personal pupil priority plans are put together by teachers to identify how they intend to ensure these specific pupils 'catch up' and achieve their end of year targets. The maths lead then monitors and quality assures these plans and keeps track of their progress every term. This ensures that no pupil is consistently underachieving across the year.

All pupils accessing end of Key Stage assessments are monitored by the maths lead to ensure their stage of learning accurately reflects both their ability and their additional needs. We are aspirational in ensuring pupils achieve well at the end of their Key Stage but continue to be wholly focused on teaching pupils the core maths curriculum they require to make both the essential small steps of progress and long term concept development.

Aspirational yet meaningful and appropriate accreditations are a key factor in our Key Stage 4 maths provision. A consistent tracking of pupil progress ensures that from Year 9 pupils are identified for the most appropriate accreditation path and supported to achieve this successfully when they are ready. This may be in either Year 10 or Year 11. We offer maths accreditations in ASDAN, AQA Entry Levels 1-3, AQA Functional Skills levels 1-2, and GCSE. The maths lead ensures teachers are confident and capable to teach the exams syllabus and provides resources, training and pedagogy advice to do this.

Enquiries and questions

The school welcomes enquiries or questions about Maths. In the first instance parents should contact their child's class teacher.