

# Southbourne Junior School Maths Policy

This policy should be used alongside the Calculation Policy and Maths Processes document.

# Vision

At Southbourne Juniors School, our vision is for children to leave as confident, skilled and resilient mathematicians. Our curriculum has been developed to ensure rich connections across mathematical ideas, other curriculum subjects and maths for everyday life, allowing pupils to develop fluency and reasoning.

We aim for pupils to secure the foundations of number sense and place value first as we know that when these basics are secure, children find learning the rest much easier. Concrete and visual representations are embedded in the curriculum, enabling pupils to learn to calculate with confidence and develop a deep understanding of why maths works. Teachers focus on developing pupils' understanding of mathematical vocabulary and there is an expectation, starting with our youngest children, to communicate and reflect using the language of maths.

Through creative and practical lessons, children appreciate what it means to be a mathematician; they thrive upon conquering the challenges and puzzles that mathematics brings and are not afraid to make mistakes.

#### Intent

- Every child has access to a high quality maths curriculum that is both challenging and enjoyable.
- Number sense and place value come first.
- Concrete and visual representations enable pupils to calculate with confidence and develop a deep understanding of why it works.
- Focus on communicating and reflecting using mathematical language.
- Rich connections across mathematical ideas and other curriculum subjects to develop fluency and reasoning.
- Creative and practical delivery where maths for everyday life is at the heart of every lesson.

### Implementation

Planning/Delivery

- We use the National Curriculum as the basis for implementing the statutory requirements of the programme of study for mathematics for Key Stage 2.
- We follow the White Rose scheme which supports pupils' development of conceptual understanding by using concrete objects, pictorial representations and abstract thinking. Numicon and active maths complement our curriculum.
- Every lesson includes the opportunity to use a wide range of resources such as number lines, dienes, Numicon, place value counters, number squares, digit cards and base ten apparatus to support their work.
- The principles of metacognitive modelling are a feature of maths lessons. Pupils are taught how to apply strategies (to include Thinking Moves) that help them learn and develop as self regulated learners.
- The Numicon Online interactive tool is used on interactive whiteboards to aid teachers' metacognitive modelling and support pupils in building clear visual images which they can then apply to their independent work.

- Spaced practice is part of daily maths lessons in the form of 'Do you remember?' questions designed to review prior learning. These tasks are systematically planned and informed by ongoing teacher assessment to ensure that pupils know and remember more over time.
- Weekly planning incorporates a range of teaching and learning styles and approaches to support learning- practical hands-on activities, games, outdoor learning, video clips and online apps are just some of what our pupils experience on a weekly basis.
- Timed 'test' questions are incorporated into lessons to aid pupils speed and confidence.
- Weekly short bursts of multiplication facts, including Times Tables Rockstars for all year groups which are accessible by pupils at home.
- Numbots used in year 3 to recap year 1-3 objectives, children's starting point on the Numbots programme is differentiated according to end of year 2 data.
- Meaningful homework set weekly linked to in class learning.
- Comprehensive programme of maths interventions across the school to support identified pupils (Numicon Breaking Barriers, 1stClass@Number2, Success@Arithmetic:Numbersense, Success@Arthimetic:Calculation and year 5 and 6 booster groups for cusp pupils).
- In all classes there are children of differing mathematical ability. We recognise this fact and adapt learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies – in some lessons through adapted group work, and in other lessons by organising the children to work in pairs on open-ended problems or games.
- Teaching assistants are directed by the class teacher to facilitate the learning of groups and individuals.
- Throughout the whole curriculum opportunities exist to extend and promote mathematics. Our teachers seek to take advantage of all opportunities, these are evidenced in the half termly overview for each year group.
- Whole school and annual events to promote enjoyment and an appreciation of the power of maths in the real world include: Maths Day, 'Money Week', Family Learning, TTRS workshops and the 'Dojo Shop' where year 6 pupils are responsible for the reward budget.

### <u>Assessment</u>

- Live marking takes place while the pupils' work is in progress in the presence of the pupil. Immediate interaction between pupil and teacher can occur to assure the pupil they are progressing along the right lines, to correct misunderstandings, celebrate success or consolidate information.
- KPIs are baselined and continually assessed throughout the year: teachers identify areas of whole class, group and individual need to adapt planning and provide intervention where necessary.
- NFER tests are undertaken termly consisting of an arithmetic paper and two reasoning papers: the results of these are analysed and reported to SLT at termly pupil progress meetings. Teachers use their question analysis to inform the systematic planning of spaced practice ('Do you remember' recap tasks).
- Pupils attainment and progress is discussed termly during pupil progress meetings whereby class teacher, SLT and SENDCo identify where extra support may be required and an intervention timetable is agreed upon.
- Progress and attainment data is analysed termly by the maths lead and headlines produced for all stakeholders.
- National tests for children in Year 6.
- Intervention pupils complete diagnostic assessments designed for the programme, the results are used by intervention staff to produce termly reports for their focus pupils. These are shared and discussed with SLT and a decision is made to continue the provision, move the pupil to the next stage of intervention or release them from the programme. Where pupils are released, the class teacher closely monitors the child's progress in class.

• Year 4 pupils undertake the Multiplication Tables Check in June of the summer term: overall performance is used by the maths lead alongside year 4 teachers to inform future planning.

# <u>SEND</u>

- We aim to fully include pupils with additional needs in the daily mathematics lesson, removing barriers to learning and modifying the curriculum to match pupils' needs.
- We aim to maintain an inclusive learning environment where all children benefit from the emphasis on oral and mental work and work collaboratively to demonstrate their understanding, explain their methods and address misconceptions. We create a learning space in which it is safe to make mistakes and to learn from them.
- When planning for and assessing SEND pupils, teachers may, in consultation with the SENDCo, draw up individualised or group learning journeys. Teachers will consider the use of multi-sensory learning strategies and resources (concrete, visual, picture representation of mathematical concepts, ICT) and give consideration to lighting, seating or other sensory/physical needs. Provision may also include pre-teaching of mathematical vocabulary, visual prompts to reduce load on working memory, over-learning, scaffolding, additional adult support or targeted intervention.
- Further advice from the SENDCo may be sought if a specific mathematical learning difficulty is suspected e.g. Dyscalculia.

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