



Maths Policy

Approved	April 2022
Review date	May 2024

Introduction

The teaching of mathematics at The Avenue School is grounded in the recognition of the evolving demands of society and the diverse needs of our students, particularly those with Autism Spectrum Disorder (ASD). Mathematics education serves as a cornerstone in preparing our students for the complexities of adult life, equipping them with essential skills that are necessary for their individual growth and independence. Our Maths Policy outlines our commitment to delivering engaging, personalised, and functional mathematical education across all stages of learning, from Early Years Foundation Stage (EYFS) to Secondary education.

Rationale

The teaching and learning of mathematics at The Avenue School are aligned with our overarching vision, emphasizing independence and the realization of each student's unique potential. Mathematics education encompasses vital life skills, empowering our students to navigate real-world challenges with confidence and autonomy. We employ a personalised approach to mathematics instruction, tailored to the individual needs of each student, ensuring inclusivity and meaningful learning experiences.

Our curriculum is structured around two core strands: Number and Geometry and Measure. Number encompasses foundational concepts such as counting, calculation, and fractions, while Geometry and Measure explore spatial awareness, measurement, and problem-solving. These strands are interwoven with Financial Education, reinforcing numeracy skills within real-life contexts and fostering financial literacy essential for future success.

Aims and Objectives

Our Maths curriculum aims to:

- Foster a positive and enthusiastic attitude towards mathematics through engaging, hands-on activities and discussions.
- Develop students' confidence and competence with numbers and mathematical concepts.
- Cultivate an understanding of shape, space, and measurement through experiential learning.
- Equip students with essential mathematical language and communication skills.
- Enhance problem-solving abilities and decision-making skills across various contexts.
- Promote fluency in fundamental mathematical concepts through regular practice and increasing complexity.
- Encourage students to apply and articulate their mathematical reasoning with confidence.
- Provide aspirational opportunities for Financial Education and holistic mathematical understanding.
- Support students in achieving a greater depth of understanding of mathematical concepts.
- Offer appropriate accreditation and prepare students for life beyond school.
- Instill an understanding of the relevance of mathematics in everyday life, promoting independence and application in practical scenarios.
- Develop adaptable mathematical skills relevant to a dynamic and evolving world.
- Foster the generalization of mathematical skills across diverse resources, situations, and real-life scenarios.

Planning

Our Maths curriculum is delivered through a combination of discrete subject teaching and cross-curricular approaches, ensuring comprehensive coverage and progression of skills. Planning is informed by a developmental sequence of skills, drawing upon frameworks such as Development Matters, Small Steps, and the National Curriculum. Personalised intervention plans (PIPs) are established for individual students, with specific targets set for Number and Geometry and Measure. Whole-class teaching is scaffolded by long-term planners, facilitating continuity and progression across all strands of mathematics. Cross-curricular links are embedded within thematic learning units, enriching mathematical understanding through real-world contexts.

Stages of Learning

Our curriculum caters to students across different stages of development:

- **Early Years Foundation Stage (EYFS):** Focus on engagement and early mathematical skills through play-based learning.
- **B1-4:** Emphasis on pre-subject specific learning and foundational mathematical concepts.
- **B5+:** Aligned with the National Curriculum and Pre-Key Stage Standards, catering to diverse learning needs and abilities.
- **Individual Education Plans (IEPs):** Tailored to each student's EHCP, ensuring appropriate support and progression through Key Stages and post-16 education.

Teaching and Learning

At The Avenue School, we recognize the significance of personalized instruction and multisensory experiences in fostering mathematical understanding and independence among our students. Our teaching methodology emphasizes hands-on exploration, visual representation, and real-world application to cater to the diverse learning needs of students with autism.

Concrete resources, such as Numicon and manipulatives, serve as foundational tools in our approach to mathematics instruction. These resources provide students with tangible and tactile experiences that facilitate conceptual understanding and engagement. Through hands-on activities and practical tasks, students are encouraged to explore mathematical concepts in meaningful ways, laying the groundwork for deeper learning and retention.

Pictorial representations play a crucial role in helping students bridge the gap between concrete experiences and abstract concepts. Visual aids, diagrams, and charts are used to illustrate mathematical relationships and ideas, supporting students in making connections and developing visual-spatial reasoning skills. Speech and Language Therapy input further enhances students' understanding of mathematical language and promotes effective communication of mathematical ideas.

As students progress through their mathematical journey, they transition to abstract representation, where they learn to express mathematical concepts using formal notation and symbols. Problem-solving tasks and real-world scenarios provide opportunities for students to apply their mathematical knowledge and skills in authentic contexts, reinforcing learning and promoting independence.

In summary, our approach to teaching and learning in mathematics is characterized by a commitment to personalized instruction, multisensory experiences, and real-world relevance. By combining concrete, pictorial, and abstract representations, we aim to empower students with autism to develop essential mathematical skills, confidence, and independence in their learning journey.

Number

At The Avenue School, we believe in fostering a strong foundation in number sense through a comprehensive approach that caters to the diverse learning needs of our students. Our curriculum is designed to engage students in meaningful and practical experiences that promote numerical fluency, problem-solving skills, and mathematical confidence.

Concrete resources, including Numicon and other manipulatives, serve as invaluable tools in our teaching methodology. These resources provide students with tactile and visual representations of numerical concepts, facilitating hands-on exploration and conceptual understanding. Through activities such as counting objects, sorting shapes, and measuring quantities, students develop a solid grasp of number relationships and operations.

As students progress, they transition to pictorial representations, where they learn to interpret and represent numerical concepts through diagrams, charts, and visual aids. This stage emphasizes the importance of non-identical matching skills and visual-spatial reasoning, enabling students to connect abstract mathematical ideas to concrete experiences.

Geometry and Measure

Geometry and measure encompass a diverse range of skills and concepts that are essential for students' development and independence. Our curriculum emphasizes hands-on exploration and experiential learning, allowing students to engage with geometric shapes, spatial relationships, and measurement tools in meaningful ways.

Concrete resources such as geometric solids, measuring tapes, and scales provide students with tangible tools for exploring geometric concepts and measurement techniques. Through activities such as building structures, exploring symmetry, and measuring objects, students develop spatial awareness and problem-solving skills.

As students progress, they transition to pictorial representations, where they learn to interpret and represent geometric shapes and measurements through diagrams and visual aids. This stage emphasizes the importance of spatial visualization and geometric reasoning, enabling students to apply mathematical principles to real-world contexts.

Financial Education

Financial literacy is an integral component of our mathematics curriculum, equipping students with the essential skills and knowledge to navigate the complexities of personal finance and economic decision-making. Through a structured program of study, students learn about budgeting, saving, investing, and responsible consumer behavior.

Real-life situations and practical applications are fundamental to our approach to financial education. Students participate in activities such as weekly school shopping opportunities in the school store and cinema experiences, where they purchase tickets and snacks and watch a film related to the theme. These activities also include budgeting for shopping trips, comparing prices, and managing a simulated bank account. These interactive experiences serve to strengthen mathematical concepts and foster financial independence and critical thinking skills.

In summary, our approach to teaching and learning in mathematics is guided by a commitment to personalized instruction, multisensory experiences, and real-world relevance. Through differentiated instruction in numbers, geometry, and measure, and financial education, students with autism are empowered to develop essential mathematical skills, critical thinking abilities, and practical life skills necessary for success in adulthood.

Recording, Assessing, and Recognizing Progress

Progress in mathematics is systematically monitored through ongoing assessment, targeting both formative and summative outcomes. Personalized targets are established at the onset of each academic year, guiding individual trajectories of learning. Progress is documented through RPT's bespoke Small Step assessment system, celebrating incremental achievements and identifying areas for further development. Evidence of progress is recorded using Evidence for Learning, facilitating transparent communication and collaboration among staff. Pupil Progress Meetings serve as forums for discussing underachievement or exceptional progress, informing tailored interventions and support strategies.

Maths Lead Teacher

The Maths Lead Teacher, Daniel Alvarez, assumes a pivotal role in guiding and supporting mathematics provision at The Avenue School. Working in collaboration with senior leadership, Daniel oversees the implementation of the mathematics curriculum, providing training, feedback, and resource management. The Maths Lead Teacher is tasked with devising an annual Maths Action Plan, aligning with whole-school improvement priorities, and fostering a culture of excellence in mathematics education. Regular evaluation of pupil progress and curriculum effectiveness informs ongoing refinement and enhancement of teaching and learning practices.

Equal Opportunities

At The Avenue School, we are committed to promoting equal access and opportunities for all students, irrespective of background, ability, or individual characteristics. Our inclusive ethos prioritizes respect, diversity, and equity, ensuring that every student receives support tailored to their unique needs and abilities.

Conclusion

The Mathematics Policy at The Avenue School reflects our dedication to providing high-quality, inclusive, and meaningful mathematics education for students with autism. Grounded in evidence-based practices and personalized approaches, our curriculum empowers students to develop essential mathematical skills, fostering independence, confidence, and lifelong learning.