Ashfield Infant and Nursery School - An Incredible Journey – 'A big curriculum for small people'

Maths Curriculum Statement 2022

At AINS our over-arching curriculum aim is to offer breadth, scope and ambition. We seek to add cultural capital by giving children knowledge and skills that build a foundation for later learning, enabling them to become thoughtful members of our community, with beliefs and understanding of the world underpinned by shared British values. Our six core values are at the centre of our curriculum: Nature, Creativity, Respect, Independence, Community and Nurture.

Our Maths curriculum allows our children to learn in a **safe** environment, enabling everyone to feel valued and achieve their full potential. Our children become **independent**, confident learners as they explore, revisit and deepen their understanding and knowledge. We aim for the knowledge and understanding the children acquire to become part of their long-term memory, therefore time and precision is given to the planning, teaching and delivery of our curriculum.

Through the teaching of our Maths curriculum, children are given the opportunity to:

- become fluent learners through varied and frequent practice,
- be able to reason mathematically - explore, enquire, make relationships and prove/disprove through rich and sophisticated problems to deepen understanding,
- be able to solve problems - persevering and applying fundamental skills to address problem and find a solution to everyday problems.

Our children are immersed in rich, ambitious language in day-to-day lessons. They are then able to use key Mathematical vocabulary when explaining their methods in lessons and during continuous provision in EYFS. Our children are challenged to deepen their knowledge and understanding with specific, open ended questioning such as – what, how, why, explain – and this is evident from Nursery up to Year 2.

Our curriculum is planned to excite and enthuse children as they learn through a concrete, pictorial, abstract approach.

As children progress through our school they will:

- develop positive attitudes towards the subject and awareness of the relevance of **mathematics in the real world.** An example of this might be measuring and weighing water or sand in continuous provision in EYFS and the use of Money in KS1,
- develop competence and confidence in using and applying mathematical knowledge, concepts and skills,

- have the ability to solve problems, to reason, to think logically and to work systematically and accurately,
- develop mental fluency and become confident leaners who enjoy and thrive in Mathematical scenarios and situations,
- be able to use initiative and be motivated to work both independently and in cooperation with others,
- access resources freely and independently showing respect and maturity. An example of this would be children accessing numicon, counters or number lines in the classroom to help them work independently on a task,
- be able to confidently communicate using correct vocabulary and terminology as well as ask and answer questions, openly share work and learn from mistakes,
- be able to use and apply mathematics across the curriculum and in real life scenarios,
- have an understanding of mathematics through a process of enquiry and investigation.

We plan and organise our teaching and curriculum to allow children the opportunity to learn, practice and repeat their fundamental skills. As we do so we ensure that we give children the chance to steer and pave their own successes as they flourish into caring, nurturing, inspiring learners. An example of this might be children choosing their own level of 'chilli challenge' in Year 2 after completing their teacher lead task.

Our Maths curriculum follows a mastery approach to teaching and learning. It has number at the heart whereby we ensure depth before breadth for all of our learners. It supports pupils working together, with inclusivity at the heart, and provides opportunity to reason and problem solve whatever your ability. In Key Stage one classes have a daily Maths lesson and in EYFS children learn through a mixture of adult led and child initiated activities in continuous provision both inside and outside of the classroom. Our Maths lessons follow the same structure across the school; a starter, main whole class teaching, individual tasks, plenary. An example of this you may see in EYFS; recapping previously learning through discussion and exploration as a starter, introducing the new objective during the whole class teaching through CPA approach, individual tasks set for teacher led group work and tasks linked in continuous provision areas finished with regrouping on the carpet to discuss the children's learning. An example of this in KS1; recapping fundamental arithmetic skills i.e. multiplication or division during the starter, introducing the new objective during whole class teaching, individual tasks set for independent table focus work following the CPA approach finished with problem solving and reasoning as the plenary either through independent work or whole class discussion.

In structuring our lessons in the above way we meticulously sequence our curriculum, this is evident through our medium and short-term planning. These indicate that children are given opportunities to:

- engage in/with practical activities and games using a variety of resources as they experience their learning first hand by 'doing',
- work in an open manner through discussion, group or pair work allowing for exploration of concepts,
- work in a closed and focused manner to allow for children the opportunity to apply their chosen method as taught through varied fluency e.g. for a subtraction question children may draw a number line or choose the abstract column method,

- build resilience in problem solving and reasoning as they make connections between aspects in their learning, justify and prove their answers and persevere until they find a solution,
- explore their misconceptions and revisit any mistakes made.

Differentiation is evident in our outstanding Maths curriculum as our teachers aim to overcome any potential barriers to learning and assessments in responding to pupils' diverse needs. Examples of what you may see in our Maths lessons include, but are not limited to, the use of concrete resources to allow children to manipulate what is happening in a calculation or problem. Collaborative learning whereby children work in groups or pairs to achieve a task offering peer-on-peer support with emphasis on a child's explanation behind the Maths rather than this always coming from a teacher. Pictorial representations are used to support children who learn and achieve through a visual approach to education. A child's ability to read or write would not to impede their Maths education in lessons and assessments, learners are given the chance to listen to questions and scribes are used to capture children's understanding and explanations.

We also seek to fully utilise all opportunities to use and apply mathematics across all subject areas. For example, in Science and Knowledge and Understanding of the World (EYFS) our children will collect, present and interpret data and experiment with changes in our immediate world. In Design and Technology the children use rulers and measuring apparatus to support the projects they are creating. Thus, further embedding the fundamental skills.

In Key Stage 1, teachers assess how well pupils have understood the year specific programme of study as outlined in the National Curriculum. At the end of each unit teachers are looking to see if pupils have retained knowledge and concepts taught, by answering questions with fluency and/or proof and justification. Summative assessments are used to inform teacher judgements when reporting our assessment data. Teachers refer to our year group specific small steps or the end of Key Stage criteria to determine how well children are achieving based upon the curriculum coverage taught so far. In EYFS, formative assessments are used to make judgements on how the children are achieving. Teachers daily observations, lesson planning and examples of work are used alongside an in depth teacher led explanation as evidence of meeting the new ELG by the end of Reception.

"Ashfield Infants is an Outstanding School."
-Ofsted 2018

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