



'Nurture, Inspire, Discover, Create'

Maths Curriculum Vision, Knowledge and Skills

Intent and Design – What are we trying to achieve?

Vision

• **As a school we aim to:**

- Preparing children for the future through an inspirational curriculum that makes a difference to the world; outstanding character development; exceptional health and well-being.

• **In Maths we aim to:**

- Empower all children with a 'can do' attitude towards maths, equipping them with the vital secure base of knowledge on which their future maths education and skills essential for everyday life will build.

• **Children will understand maths as:**

- Understanding how shape, position and quantity behave and use this to solve problems in everyday life.

Motto

- **Nurture** – We care for each other and celebrate our differences, achievements and contributions to the world. We support each other through challenges and difficulties, recognising that the mental health and well-being of both ourselves and those around us is one of the key factors in our happiness and success.
- **Inspire** – We inspire each other to greater heights through our communication, actions, support and achievements. We take inspiration from the people, places and events all around us. We recognise that whether a situation is good or bad, there is always learning and growth to be gained. These situations inspire us to make positive change a reality.
- **Discover** – We are excited to discover new knowledge, skills, people and places. We are open to alternative ideas beyond our own and enjoy exploring the thoughts, conversations and solutions that others bring to different situations and experiences.
- **Create** – We enjoy working together to create new and exciting solutions to make our world a better place. We believe we can make a difference no matter how large or small. Our school is a place where we can experiment and take risks in order that we might better ourselves and the world we live in.

School Values

• We believe in...

- **Developing outstanding character** and attitudes to learning in preparation for future challenges in a changing world.
- **Promoting physical and mental health** in a happy caring environment that is supportive and encouraging.
- **Making a difference** to the world we live in through creating enterprising solutions to local and global issues.
- Developing social skills and an appreciation of **each person's unique strengths**, respecting and embracing different cultures, races and religions.
- Fostering a **deep sense of care and nurture** for the world we live in and the people around us.
- Creating a broad range of **inspiring experiences** that allows children to develop skills and find their place in the world.
- Working in **partnership with our school community and beyond to build brighter futures**.
- High expectations alongside a **culture of self-awareness, reflection and self-improvement**.

Aims of our Maths Curriculum

• **Our inspirational Maths curriculum will enable:**

- All of our children to see themselves as competent mathematicians. The 5 big ideas of mastery inform our everyday teaching, meaning that learning is built carefully, slowly and securely. Pupils will show flexibility in their understanding of a concept: representing the structure of the maths in multiple ways; choosing their methods and strategies to maximise their efficiency; and communicating their maths understanding effectively using accurate mathematical language. They will build connections between the areas of maths they are learning, including old and new learning, facilitating their ability to apply the concept to new problems or unfamiliar situations. At each stage of learning, pupils should be able to demonstrate a deep, conceptual understanding of the topic and be able to build on this over time. It is not just about achieving a superficial understanding that can easily be forgotten. Depth of understanding is more important than speed and a 'can do' attitude to fostered in all pupils as we approach our learning together, using a range of strategies to allow pupils to keep up and not catch up. Individual strengths, flexible thinking, creativity and choices are embraced within our lessons. Crucially, this allows all children to develop the self reliance, self-reflection, perseverance and resilience needed to prepare them for their future lives.

Learning Intentions

- Our Maths curriculum at Stathern, is designed to cover ten core themes as set out in the national curriculum: place value, addition and subtraction, multiplication and division, fractions (including decimals), measurement, geometry (properties of shape) geometry (position and direction) statistics, ratio and proportion and algebra. These are broken into topics that are taught progressively across both key stages. Children are encouraged to make connections across areas of maths in order to encourage fluency, competence and problem solving. In addition, areas of maths are also applied through a variety of other subjects as appropriate.
- We aim to ensure our children are able to:
 - Be fluent in the fundamentals of mathematics, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
 - Build understanding sequentially through varied and frequent practice to enable fluency and confidence to build.
 - Reason mathematically, forming conjectures about relationships, generalisations and justifying ideas using appropriate mathematical language.
 - Solve a wide variety of problems by applying their mathematical knowledge and persevering in seeking solutions.

'Nurture, Inspire, Discover, Create'

Maths Curriculum Vision, Knowledge and Skills

Implementation and Organisation – How will we arrange our learning?

Our planning at Stathern is informed by the national curriculum, DFE's non-statutory ready to progress guidance and the NCETM's prioritisation and professional development materials. These documents inform a consistent and progressive use of representations that expose the mathematical structures of the underlying concepts being taught throughout the school. Exemplification materials inform teacher's subject knowledge, ensuring learning is nurtured through a series of small steps and that those steps of learning are carefully sequenced with sound mathematical progression at its heart. Ongoing assessment of pupils understanding informs our teaching. The steps in learning, challenges and approaches will always be adapted as necessary and based on pupils' security of understanding and readiness to progress to the next stage. Fluency in pupils' ability to choose effective strategies and to be flexible in their approach is achieved through an episodic teaching style with frequent opportunities for children to discuss and reflect on their understanding as well as learning from others. Reasoning, discussion and exploration opportunities are embedded within lessons and allow children to discover the joy of taking ownership over their own maths, spotting patterns and forming conjectures. A mixture of collaborative, individual and paired work, require children to see that maths is not only knowing the answer, but being able to communicate this clearly to others and to grow from this. High speed recall of key mathematical number facts is achieved through discrete fluency sessions, class teaching and homework activities. These are key to achieving children's sense of confidence and automaticity within these areas, allowing them to meet the challenges of our progressive curriculum. Children of all abilities, whether SEND, lower attainers or our most able, will have equal opportunities to access our amazing curriculum and personal development provision. Children will be supported to 'Dig Deeper' using the skills and knowledge taught, and will have the same high expectations of achievement and be scaffolded, supported and assisted to make the best progress possible. Staff continue to make all reasonable adjustments, to accommodate all pupils.

School Focus

Reading

Challenge

Vocabulary and
Communication

Progressive
Skills

Transferable
skills

Positive
Mental Health
and wellbeing

Maths Developmental Foci

Problems in maths are read, analysed and represented in a variety of ways for clarity and accuracy.

Lessons are planned to challenge pupils both academically and developmentally

Stem sentences, and accurate use of vocabulary cement their conceptual understanding and justify their ideas with accuracy and clarity.

Small steps of learning build sequentially and consistently throughout the school.

Maths is taught in context where appropriate within discrete maths lessons but also throughout the wider curriculum to facilitate transfer of skills.

Personal development is supported by embedding skills of collaboration, resilience

Main daily maths session: This will be tailored to individual cohorts and points in the year, but throughout the school incorporate aspects of the 5 big ideas of mastery.

Focused, discrete fact fluency sessions: These focus on efficient strategies, fast pace retrieval and recital to facilitate fluency in required facts throughout.

Additional support, pre-teaching and targeted interventions to facilitate all children to 'keep up' and have key concepts securely in place for their next stage of learning.

Frequent low stakes quizzing, TT Rockstars, Edshed, Deepening Understanding and bespoke homework activities used to reinforce key concepts to facilitate long term retention at home and at school.

Children of all abilities, whether SEND, lower attainers or our most able, will have equal opportunities to access our amazing curriculum and personal development provision. Children will be supported to 'Dig Deeper' using the skills and knowledge taught, and will have the same high expectations of achievement and be scaffolded, supported and assisted to make the best progress possible. Staff continue to make all reasonable adjustments, to accommodate all pupils. At Stathern we are adaptive teachers, teaching adaptive and inclusive

Contexts

The learning environment provides access for pupils with limited/different mobility or

The classroom/learning space is supportive of all pupils, particularly for

Displays, signs and presentations are accessible for pupils with communication difficulties

Pupils with Literacy difficulties are supported to access reading

There are a range of resources available to support and

Classroom management structures are supportive of all pupils who

Uniform Policy and Behaviour Policy adjustments

Provision of alternative areas

Provision of appropriate and safe learning areas

Support to use equipment needed to teach and ensure good progress

Use enlarged fonts for visually impaired students

Support for communication of all pupils

'Nurture, Inspire, Discover, Create'

Maths Curriculum Vision, Knowledge and Skills

<p>A range of quality resource inform our teaching and facilitate flexibility in meeting the needs of learners. This is informed primarily by the NCETM prioritisation materials, but also include: NCETM PD, White Rose Maths premium, Deepening understanding, Number sense, Mastering number materials, I see reasoning and I see problem solving.</p>	R	Y1/2	Y3/4	Y5/6	<p>School Values, NCETM PD EMS Maths Hub, Mastering Number Program, and VCP networks</p>
				Algebra	
				Ratio and proportion	

Key learning within EYFS (2021)

Maths to be taught through topics using a holistic approach following the EYFS Curriculum. *Refer to EYFS Vision Document.* Maths skills will be primarily developed through the Maths strand of the curriculum.

Numeracy

"Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically"

These areas feed directly into the areas on the Year1 – 6 progression maps below.

Number:

- Have a deep understanding of number to 10, including the composition of each number; 14
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns:

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

For detailed progression of learning from year 1 to 6 in each of the above themes, please see appendices in line with the National Curriculum, and ready to progress non-statutory DFE guidance.

Impact – How well are we achieving our aims?

Impact seen
in:

Teacher Assessment

Pupil Voice

Moderation

Work scrutiny

Parental surveys and
feedback

Observations and
Blinks

Data analysis

Progress of pupils
across the curriculum

Staff Questionnaires

Our children
will:

Making great progress and
have high standards of
achievement and attainment

Have a lifelong love of reading
and learning and be able to
communicate clearly

Be respectful of
themselves and
demonstrate excellent
behaviour

Be confident, positive and
independent learners with
high aspirations

Have mental wellbeing and
make healthy lifestyle choices

Participate in the
community and have
excellent attendance

know more and remember more

Work Sample Analysis:	What do our books show?
Lesson Observations:	How is the quality of teaching, learning and use of assessment in the lesson? How good is the questioning in the lesson?
Surveys:	What do parents and children say about this subject?
Interviews:	What do the children say about their learning in this subject? What do the staff say about their learning in this subject?
Coaching and Mentoring:	Is there a need for coaching and mentoring in this subject? What support do colleagues need in this subject?
Training:	What training has taken place? What is the impact of any training given?
Learning environment:	How does the learning environment support the learning in this subject area?