

At Hamstel Infant and Nursery School we believe that mathematics is an essential life skill and that all children deserve to develop an enjoyment of maths and have opportunities to develop fluency, problem solve and reason.

INTENT— *We aim...*

For **every child** to develop an **enjoyment** of maths and build **confidence** within the curriculum.

To give **all learners** the skills needed to become **fluent** mathematicians and **develop number sense**.

That by the end of KS1 children will have a bank of **key representations** to allow them to understand and solve mathematical equations.

To provide all children with the opportunity to develop their **mathematical thinking** through **problem solving**, **reasoning** and **articulating** their understanding.

To offer a flexible curriculum that focuses on taking **small steps** to secure learning so children can remember more.

To emphasise subject specific **vocabulary** to enrich and support understanding of maths.

IMPLEMENTATION— *How do we achieve our aims?*

At Hamstel Infant and Nursery School we promote an enjoyment of Maths and provide them with the necessary skills to be successful mathematicians. We provide children with knowledge and offer many opportunities to improve Fluency, Problem Solving and Reasoning skills.

Key Stage 1

Maths No Problem!



All children in Key Stage 1 have a daily maths lesson that follows the **Maths No Problem!** Scheme of learning. This scheme is designed to meet the **curriculum requirements** and ensures that children's learning is taken in **small steps** to secure learning and offer the chance for **deeper understanding** for all children. The scheme offers a natural progression across the year groups and ensures that children are ready for the upcoming year. This scheme is used to aid our short term planning, where **adaptations** are made and a high level of attention is made to ensure learning opportunities for all children.

Oracy and Vocabulary Development

Well planned lessons and opportunities for **rich classroom discussions** enable children to learn and use new **subject specific vocabulary**. Vocabulary is modelled by adults and the use of **STEM Sentences** provide structure so the children can practice and use the new vocabulary in the correct context. This enables children the ability to verbalise their thought processes, confidently **reason** and help them with **problem solving**.

Mastering Number



All children have an extra **fluency** session 4 times a week. Our aim is to **secure firm foundations** in the development of good **number sense** for all children and that over time, children will leave KS1 with fluency in calculation and **confidence and flexibility** with number. Attention is given to key knowledge and understanding needed in Reception classes, and progresses through KS1 to support success in the future.

Hamstel Headlines

Our **Hamstel Headlines drive our commitment** to all children receiving quality first teaching in Mathematics. All staff have **high expectations** of themselves and the children and all staff demonstrate **outstanding subject knowledge**. Staff encourage **collaborative** and **independent learning** and create a **safe atmosphere** where all children are able to **build confidence** in maths. **Assessment for learning** is used in all lessons to ensure that knowledge is **embedded** and that opportunities for next steps or support are identified in the moment and for future lessons. Learning is always **adapted** through questioning, modelling, reasoning and problem solving opportunities.

Learning Environment and Resources



All classrooms are designed to **promote independence** and allow all children to use the resources and equipment they need when they need it. Key Stage 1 classrooms have a **Working Wall** which depicts key learning and **representations** of the current topic, along with **subject specific vocabulary** and **STEM sentences**. Manipulatives are available to all children to support their independent learning and to **develop resilience** and confidence.

Problem solving and Reasoning



Through **well planned** and **sequenced lessons**, we ensure that all children have the opportunity to problem solve and reason. Every Math lesson in KS1 begins with a problem solving task whereby children are expected to solve with suitable levels of support and challenge. Reasoning skills are continuously matured through **language development**, **STEM sentences** and **rich classroom discussion**.

EYFS

Mastering Number and White Rose

Mastering Number is embedded to promote **fluency and number sense**. Children are exposed to number patterns and have opportunities to **verbally reason** and problem solve in supported environments. **White Rose** is used as a vehicle to plan additional weekly lessons on **Shape, Space and Measure**.

Learning Environments

The classrooms are set up to develop pupils maths skills through **well planned activities** and play opportunities through continuous provision. Where appropriate role play areas are used to apply maths to the real world.

Maths Meetings



Maths Meetings are **daily** lessons used to further develop children's knowledge outside of the ELG statements. These sessions are designed to **recap** previously learnt skills including Number and Space, Shape and Measure to ensure that the learning is **embedded** long term.

Assessment



Whole School

Using our **progression grids** and **expectations** for the end of EYFS and Key Stage 1, teachers are able to understand the content previously taught and their next steps. In EYFS, the **assessment checkpoints** are used to inform judgements using **practical termly assessments** with the teacher. At the end of the EYFS informed judgements are made against the **Early Learning Goals** in Number and Numerical Patterns. In **Key Stage 1** Maths No Problem papers are used bi annually. These assessments are used to **review** what learning has stuck in their **long term memory** and **plan future lessons** in response. The **teacher assessment framework** is used at the end of KS1 to assess progress in maths, this provides us with a **consistent benchmark** for assessment. Explicit success criteria help our children understand the learning outcomes and are referenced throughout the lesson. Previous learning is reviewed at the beginning of each lesson to assist teachers AFL. **Effective questioning and feedback strategies** such as show me boards, three tick answers, think pair share are used in the classroom to provide feedback and ensure misconceptions or gaps are addressed. **Independent learning** opportunities also form part of the assessment process and provide opportunities to check progress against the learning outcomes.

Adaptations

Well planned and sequenced lessons ensure that all children are supported and challenged based on their needs. We ensure that all children are receiving the same **quality teaching** and are provided the same opportunities regardless of their starting points.

Enrichment and Parental Involvement

Our children in EYFS and Key Stage 1 have the opportunity to engage in annual **maths workshops** where we encourage parental involvement. This provides an opportunity to inform parents of some key concepts in number and calculating, whilst also using particular methods with their child. Parents are also invited to observe and participate in our **Mastering Number** sessions with their children.

IMPACT—How will we know we have achieved our aims?

Children will develop **number sense** and become **fluent** in number facts.

Children will be able to confidently explain their **reasoning** using subject specific **vocabulary**.

Children will be able to use their **knowledge** and **representations** and **apply** these to a variety of **problems and tasks** showcasing their **depth of understanding**.

Children can apply their Maths knowledge and skills to **real life opportunities**.

Children will develop an **enjoyment** for the subject and therefore become **resilient**, **confident** and **independent** learners.

Children make **good progress** and are prepared for the **next stage learning** regardless of their starting points.