Forever learning: Limitless potential for every child

Our Maths Curriculum

Subject Introduction - Maths

Purpose of Study

Mathematics equips pupils with a uniquely powerful set of tools to understand and change the world. These tools include ***logical reasoning, problem-solving skills, and the ability to think in abstract ways*.** Mathematics is important in everyday life, seen in many forms of employment; maths and technology, medicine, the economy, the environment and development. Mathematics is a creative discipline. It can stimulate moments of pleasure and wonder when a pupil solves a problem for the first time, discovers a more elegant solution to that problem, or suddenly sees hidden connections. We actively integrate the EYFS/development matters agenda throughout the learning and teaching of Mathematics – with specific reference to all children using their mathematical skills in order to achieve economic well-being.

Intent

Skills	Knowledge	Learning Behaviour
● Promote confidence and fluency with numbers and the number system. ● Develop the ability to enquire and solve problems through decision–making and reasoning in a range of contexts. ● Develop a practical understanding of the ways in which information is gathered and presented. ● Explore the features of space and shape, and develop a measuring skill in a range of contexts. ● Ensure that children achieve mastery in the key concepts of maths in order that they make genuine progress and avoid gaps in their understanding that provide barriers to learning.	● Understand the importance of mathematics in everyday life	● Encourage children to enjoy and develop their confidence in using maths ● Promote enjoyment and enthusiasm for learning through practical activities, exploration and discussion.

Implement		
Learning strategies	**Resourcing**	**Timings**
● Maths sessions that include whole class and encourage children to ***ask*** mathematical questions as well as answer them; ● Full sentences are to be used by all children when answering a question or during ping-pong. ● STEM sentences are used to support the children in remembering knowledge and processes ● ensuring children use manipulatives before they represent their thinking using pictures and then move into more abstract forms of recording, such as using numerals to create a number sentence ● Teachers set suitable learning challenges that are seen in the majority if not all lessons. ● Teachers ensure once children are confident in an area that they are moved on as soon as possible - this could be by using the same concept in a different way (breadth not depth) ● Teachers respond to pupils' diverse learning needs. ● Teachers overcome potential barriers to learning and assessment for individuals and groups of pupils	● giving the children the opportunity to use resources and activities to develop an understanding of shape, space and measures ● providing the children with the opportunity to use a wide range of resources such as dienes, double sided counters, tens frames, whole-part-part model, number lines, hundred squares, Numicon and small manipulatives to support their learning; ● Resources for each lesson match learning and meet the needs of all children's needs (All classes are audited yearly for maths resources, and ordered when needed. The aim is that every class has their own resources but there is also a hub of other resources available for everyone to share in the Maths cupboard.)	● The length of a Maths session will usually be between 45 minutes to an hour. ● Mental/oral starters may consist of short, sharp recalling of mathematical concepts or a discussion of vocabulary or a concept which the children may want to discuss, these will ideally be linked to the main objective or activity children will be doing. ● Plenaries can happen at any point in a lesson, giving the children an opportunity to self or peer assess and for teachers to review their learning. During this time the teacher will assess children's understanding and either consolidate concepts or introduce a new concept linking to the following day in order to move learning forward
Cross Curricular/ local Links	**Hooks into learning/theme days**	**Vocabulary**
● Encouraging the children to use and apply their learning in everyday situations, building upon other curricular subjects in order to develop a more cross curricular approach to maths.		● STEM sentences to be used to support the children in learning and retaining important vocabulary. ● Children are encouraged to answer in full sentences when explaining and asking questions.
Impact		
Confidence	**Enthusiasm**	**Reflective application**
● To give the children an understanding of mathematical processes. ● To help the children to acquire practical mathematical skills. ● To develop children's use of mathematical language, recording and techniques.	● To support children to become effective communicators of mathematical ideas, facts and data. ● To encourage the development of positive attitudes to Maths. ● To encourage open-mindedness,	● To build on the children's natural curiosity and develop a mathematical approach to problems by allowing them to be risk takers. ● To encourage open-mindedness, self-assessment, perseverance and responsibility.

● To build on children's self-confidence to enable them to work independently. ● To develop the children's social skills to work cooperatively with others.	self-assessment, perseverance and responsibility ● To provide the children with an enjoyable experience of maths, so that they will develop a deep and lasting interest and may be motivated to study maths further.	