Mathematics Curriculum Intentions

Our Mathematics coordinators are:
Mr Spalding (Primary Phase)
Mr Humphries (KS 3)
Mr Whittlingham (KS 4)

Mathematics Curriculum Intentions

At Medeshamstede Academy, the intent of our mathematics curriculum is to design a curriculum, which is addresses the learning characteristics and needs of our pupils through incremental steps which build on previously acquired knowledge and skills. Our curriculum aims to ensure the development of every child's ability and academic achievement by delivering daily lessons that are sensory/practical and engaging to build on children's knowledge and skills – allowing them to know more and remember more.

In EYFS and KS 1 baseline assessment is used to assess what children know and can do matched to Development Matters Bands as children's start points. Next steps through multisensory approaches to learning, combining adult-directed and child-initiated activities, and provocations to learn allow children to develop confidence and ability with number as well as to encourage their understanding of shape, space and measures. It is important that children are able to do this in a range of ways including sequencing, ordering, comparing, matching, sorting, counting, adding and subtracting, using quantities and real objects to develop their understanding of concepts including weight, position, distance and money. Participation with number songs and rhymes encourages understanding of mathematical vocabulary, concepts, counting and prediction skills. 'Numercon' is used to further secure children's' visual and physical concept of number, support developing mathematical vocabulary and to understand the relationship between numbers, shape, space and measures. Practitioners seek every opportunity for joyful, spontaneous maths learning, by seizing 'teachable moments' and using observation to gauge individual progress.

Key 2 and 3 teachers cover objectives set out in the Programmes of Study from the National Curriculum. Using 'White Rose Maths' scheme, which links to the DfE, ensures a consistent approach across the academy and to support subject knowledge. Teachers also use the maths PoS linked to imaginative learning projects and termly themes from Cornerstones Curriculum to revisit and secure basic skills, make connections with others subjects as well as to extend and deepen the understanding of pupils within each class. In conjunction, our teaching staff also use a range of high quality resources such as Numicon and IT programs to enhance, support, stretch and challenge all learners.

Maths is a subject specific lesson, which builds upon previously taught knowledge, skills and vocabulary. The curriculum is covered within each child's Connecting Steps: B Squared progression statements. We use B Squared to break down the PoS into smaller achievable, steps for our pupils. We aim to develop children's enjoyment of maths and provide opportunities for children to build a conceptual understanding of maths before applying their knowledge to everyday problems and challenges. Lessons include times table practice, daily reviews of previously taught skills, knowledge and vocabulary acquisition through explicit teaching and independent practice and opportunities to reason and problem solve in an enabling learning environment.

Mathematics Curriculum Implementation

At Medeshamstede Academy, our approach to the teaching of mathematics develops children's ability to work both independently and collaboratively. We recognise that in order for pupils to progress to deeper and more complex problems, they need to be confident and fluent across the PoS. To ensure children know more and remember more, all maths lessons begin with a brief, daily review of prior knowledge and offer the time to introduce new subject specific vocabulary. We base our teaching on the 80/20 model (80% of the lesson is knowledge retrieval and 20% is explicit teaching of new vocabulary and skills).

Through each maths lesson, new content is taught in small steps to support children in their learning journey. This progresses into supported and independent practice for children to secure their new skills. Through mathematical talk, children develop the ability to articulate their thinking. We strive to ensure that children are taught to become confident mathematicians by embedding the skills and processes necessary to enable children to use and apply their Maths learning efficiently and in a variety of contexts.

Teachers use observation and questioning to elicit feedback from pupils to expose and address any misconceptions in learning. Where misconceptions are seen, they are readdressed through supported practice to enable all children to succeed.

Teachers use a range of tools to support children in knowing more and remembering more in maths. These include adult modelling, multisensory approaches, songs and rhymes, maths provocations both inside the classroom and through learning outdoors, maths games and quizzes, IT programs, task chains and visual prompts, vocabulary mats and displays and steps to success. The framework of TEACCH supports our learner characteristics through visually and physically organised work system tasks. Over the course of the term, children will revisit and recall previous learning to identify gaps in learning which must be planned for.

Mathematics Curriculum Impact

We want children at Medeshamstede Academy to understand and value the importance of Mathematics. This is captured through pupil voice, aspirations shared in their Annual Review meeting and work shared in their Record of Achievement.

We strive to equip our children with the skills to confidently apply mathematical skills and knowledge as a result of developing mathematical vocabulary, reasoning and competence in solving problems. Our pupils will be able to apply their mathematical knowledge across the curriculum. As our pupils progress further in their education, we intend for them to be able to understand the world, have the ability to reason mathematically and a sense of enjoyment and curiosity about the subject. By the end of Key Stage 4, appropriate to their individual learning pathway, pupils will leave our academy with either entry level 1 and 2 and/or GCSE maths.

Through high quality first teaching, guidance and effective feedback, all children will make at least expected progress in mathematics, evidenced within their individual pupil profile by achieving at least a complete progression step in B Squared**.** Assessment capture takes place

at the end of each term and children's progress and attainment is discussed with senior leaders in pupil progress meetings. Formative assessment takes place on a daily basis and teachers adjust planning and personalise learning accordingly to meet the needs of individuals.