

Subject Intent Statement

Teaching is for learning, learning is for understanding, understanding is for applying, reasoning and problem solving.

Pupils at Consett Academy enjoy a Mathematics Curriculum that builds mathematical fluency through engaging and rewarding lessons in which students are applauded for their efforts. Our curriculum develops pupils' mathematical reasoning through collaborative learning, encouraging students to communicate like a mathematician. We place problem solving at the heart of our curriculum so that students are stretched and challenged with solving increasingly sophisticated problems, in a variety of contexts, for every learned mathematical skill.

We want pupils to realise that Mathematics is a beautiful and interconnected subject. Schemes of learning are interleaved to ensure that pupils can move fluently between representations of mathematical ideas.

The curriculum is flexible, personalised and fully inclusive, supporting students' learning, progress and achievements. It must raise standards, heighten cultural capital, stretch the most able and narrow gaps in achievement and attainment of all students.

Our curriculum follows 3 pathways based on the Mathematicians who have had a significant impact on today's society. Students will be exposed to a range of experiences supporting their learning about these Mathematicians and their lasting legacy.

Dame Mary Lucy Cartwright, was a British mathematician. She was one of the pioneers of what would later become known as chaos theory. She saw a large number of solutions to a problem she was studying and this would later be seen as an example of the butterfly effect.

Katherine Johnson was an American mathematician whose calculations of orbital mechanics as a NASA employee were critical to the success of the first and subsequent U.S. crewed spaceflights. During her 33-year career at NASA the space agency noted her "historical role as one of the first African-American women to work as a NASA scientist.

Alan Mathison Turing was an English mathematician, who was highly influential in the development of theoretical computer science. During the Second World War, Turing worked for the Government Code and Cypher School (GC&CS) at Bletchley Park, Britain's codebreaking centre that produced Ultra intelligence. Turing played a crucial role in cracking intercepted coded messages that enabled the Allies to defeat the Axis power