

Maths at Catshill Middle School	Why is this subject important?	How is maths organised?
<p>At Catshill Middle School, the mathematics curriculum from Years 5 to Year 8 is taught through a mastery approach, ensuring that all pupils have the opportunity to achieve and succeed. This approach provides pupils with a deep understanding of mathematical concepts through carefully chosen strategies, models, and visual representations that enable them to access and apply their learning effectively.</p> <p>We aim to foster a love for mathematics by encouraging pupils to develop their fluency, reasoning, and problem-solving skills, both within maths lessons and across the wider curriculum. Through this rich and connected learning experience, pupils build the confidence and capability to use mathematics as a key tool on their educational journey and in their future careers.</p>	<p>Mathematics is an essential part of the curriculum as it helps pupils develop resilience and promotes healthy brain function through logical reasoning and analytical thinking. By exploring and solving problems in a variety of ways, pupils learn to persevere and think critically. The curriculum also helps pupils understand the real-world applications of mathematics, where they will need to recall and apply key facts and basic skills in the careers of their future.</p> <p>Maths further supports the development of communication and language skills, as pupils are encouraged to 'talk like a mathematician'—explaining their ideas using symbols, diagrams, spoken, and written language—building confidence and essential life skills.</p>	<p>Across the Federation, a Mastery Mathematics curriculum is taught, which is driven by White Rose to facilitate our mastery journey.</p> <p>Lessons are broken down into a clear structure of Retrieval Questions (Flash back four), Anchor task and Guided Practice. Pupils will then apply this independently through the varied tasks; Do it (fluency), Twist it (varied fluency) , Deepen it (reasoning and problem solving).</p> <p>Lessons are not differentiated unless a child has a specific need where they require a specific curriculum development. Through the mastery approach and adaption within the lesson, concrete, pictorial and abstract context helps create desirable difficulties for all pupils to achieve and succeed.</p>
How are other subjects linked?	How is the curriculum adapted?	How is progress measured?
<p>Mathematical skills are integral to many subjects across the curriculum. These skills can be seen within:</p> <ul style="list-style-type: none"> • Geography - Map reading , coordinates, statistical information • DT - Require measurements, shapes and 3D mathematical modelling. • Science - Requires pupils to test predictions, record and measure, apply mathematical concepts, calculate results, use and interpret data appropriately and create tables and graphs. • English - Children use their language skills (Speaking and Listening) to communicate their ideas mathematically and justify their reasoning using modelled language. 	<ul style="list-style-type: none"> • Retrieval questions and application of prior learning to ensure it is embedded before moving on • Curriculum mapping allows skills to be broken down into systematic small learning opportunities that revisit and build on each learning step. • Learning strands build on previous year groups knowledge and skills • Inclusion for all pupils through Adaptive teaching and fluid groupings within the lessons to ensure pupils are supported and challenged • Use of CPA (concrete , pictorial and abstract) representations withing all lessons • Bespoke differentiation for pupils with EHCPs • Targeted , timely interventions implemented to ensure the pupils keep up with the learning . 	<ul style="list-style-type: none"> • At the start and end of each unit pupils complete a pre and post assessment , measuring the new learning acquired and identifying misconceptions and gaps that will need to be addressed before moving the learning forward. • Daily AfL in the classroom indicates progress made. Through verbal and written feedback, pupils know what is needed in order to meet the learning objective. • Pupils take a half termly STAR test where reports are generated to share progress with parents. • Pupils in Year 6 will take SATs which test pupils' arithmetic and reasoning skills acquired throughout the National Curriculum. • Half termly, pupils will also be given a teacher judgement on their maths attainment and progress by their teachers • Pupils will also sit a GL assessment at the start of Year 5 and the end of Year 8 to assess the progress made during the years they have attended Middle School.