

Curriculum Intent, Implementation, Impact - MATHS

Thornden Mathematics Department Vision

To help all students achieve their mathematical potential and give them the skills they need to achieve their ambitions by:

- providing high quality teaching that motivates students to explore the opportunities mathematics provides in and beyond school.
- promoting an enjoyment of mathematics and an attitude of confidence and resilience.
- developing problem solving skills.

Intent	Implementation	Impact
<p>Our INTENT is that we will:-</p> <ul style="list-style-type: none"> • Support <u>all</u> students to achieve mathematical potential and give them skills needed to achieve their ambitions (we are ambitious for them). • Provide quality and inspiring teaching. • Get students excited about the opportunities maths provides in and beyond school (applications to real life contexts). • Promote an enjoyment of maths by improving their confidence (experience success in maths) and resilience (happy to be challenged). • Develop problem solving skills (support other subjects and transition beyond school). • Celebrate achievements. • Enhance their cultural capital within Maths. 	<p>What we do:-</p> <ul style="list-style-type: none"> • Five year cyclic Scheme of Work - is a progression model whereby specific concepts are revisited and then built on over the five years. This reduces repetition which in turn increases challenge. Our curriculum has both a spiral, cumulative structure whereby knowledge and understanding of concepts is built from repeated exposure and a hierarchical structure whereby knowledge and understanding of concepts is developed by the mastery of components step by step. • Progression throughout each topic across all five years with built in challenge in terms of both content and application. • Make the learning stick by: Retrieval practice of previous skills throughout all years and routines for all lessons/all year groups. • Pedagogy evolves in line with current research. Instruction and modelling followed by opportunity for deliberate practise in order to master fundamental knowledge and skills. • Encourage students to show workings and then be able to explain them. • Problem solving developed throughout once knowledge is secure. Problems chosen relate to real-life examples. Problem solving challenges knowledge and skills, supports the understanding of concepts and increases reading in a different medium. 	<p>Students encouraged to become life-long learners, understanding that mistakes are part of the learning process.</p>

	<ul style="list-style-type: none">• All activities are formative. Assessments lead to a review process which support students to develop learning, build knowledge and become independent. Regular learning checks enable students to receive feedback and improve.• We never put a ceiling on attainment. Students at KS3 follow the same tier and the majority of KS4 students begin on Higher tier.• Year 10 & 11 options groups are carefully chosen for students who need extra time to reinforce the knowledge and skills learned in order to get their grade 4+ in both English and Maths. The SOW in Maths is tailored towards key skills and then adapted and personalised accordingly from their end of year and trial assessments.• Use of IT to differentiate and “keep up” with different ways of assessing and learning.	
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