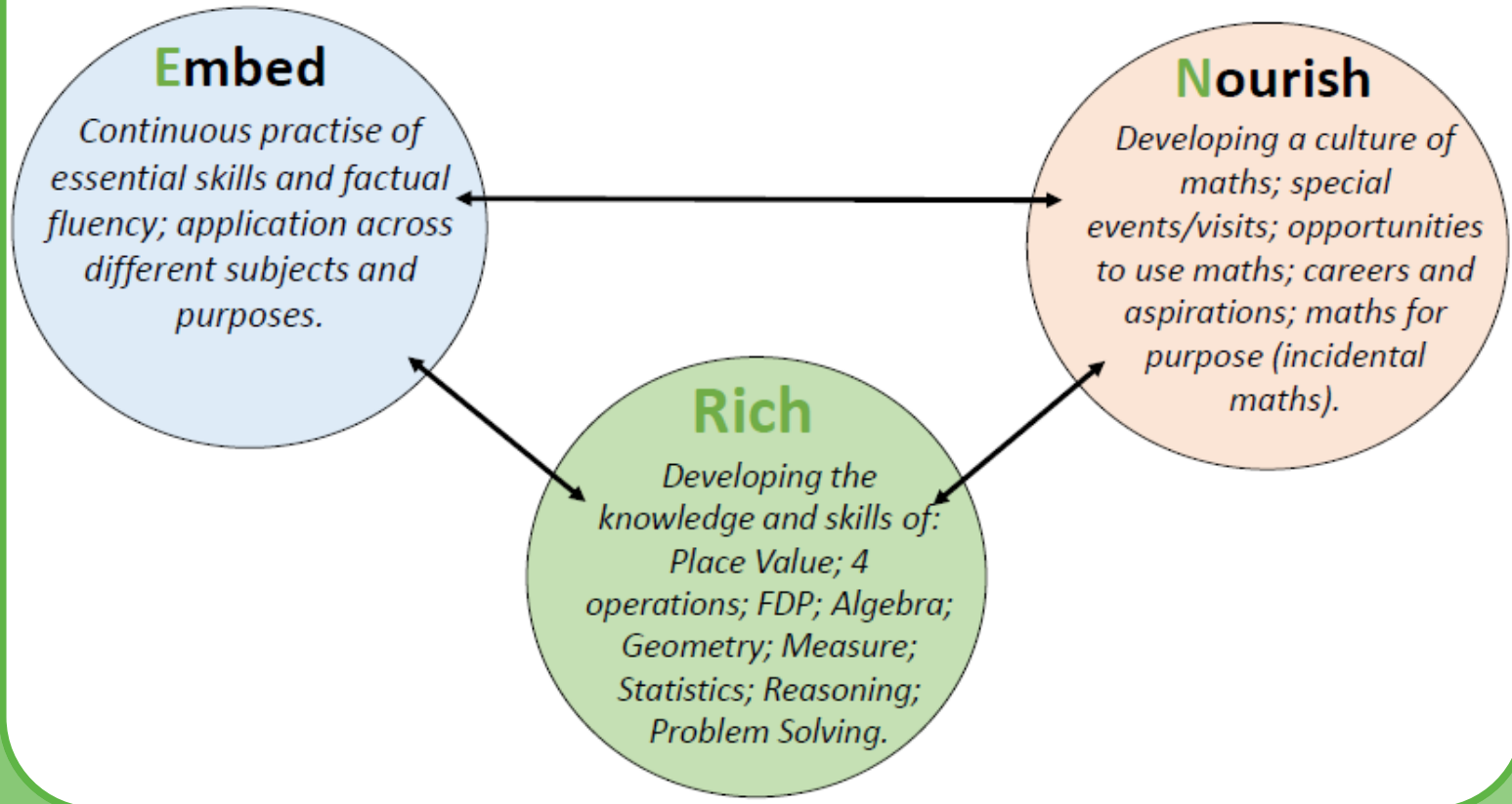
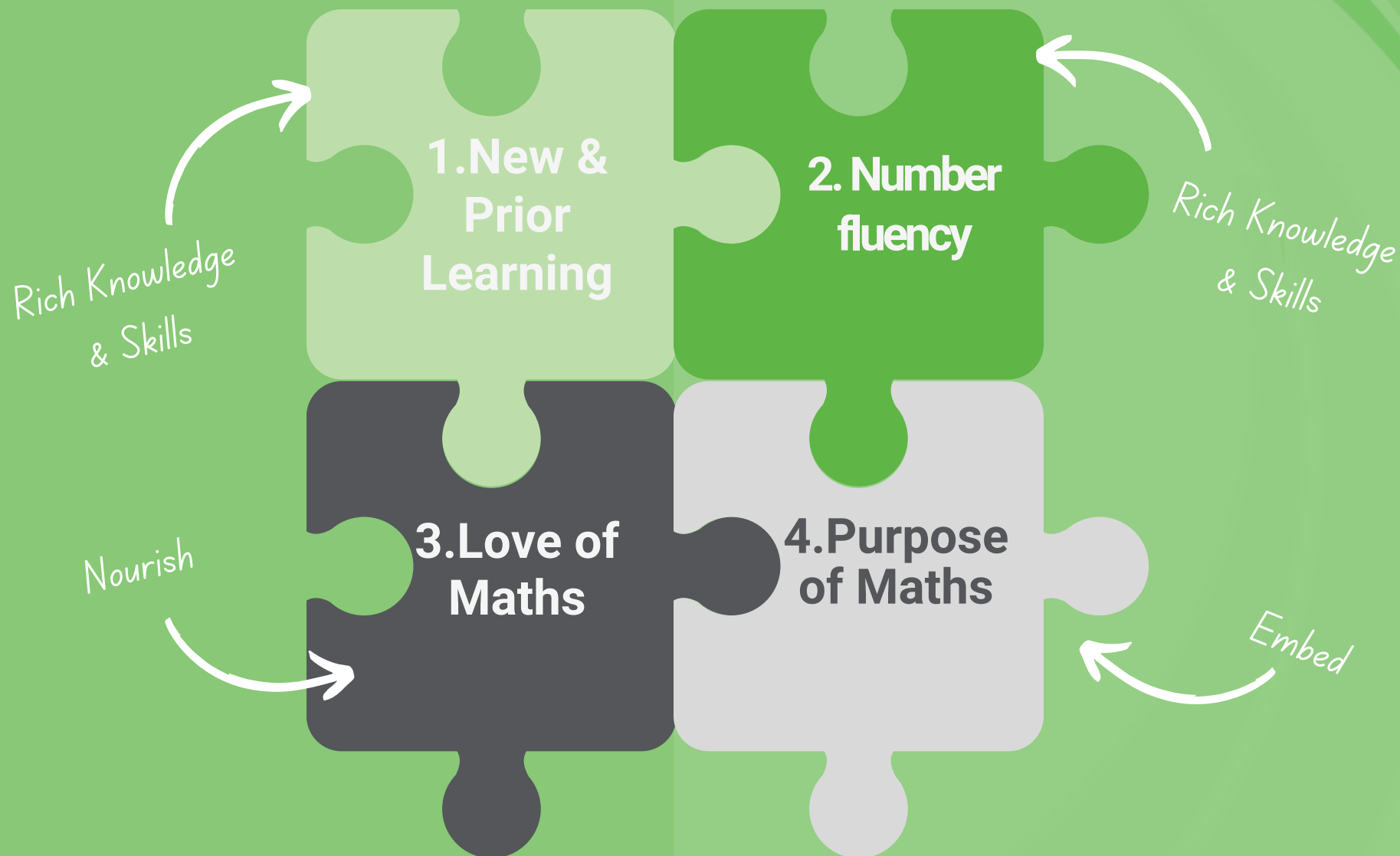


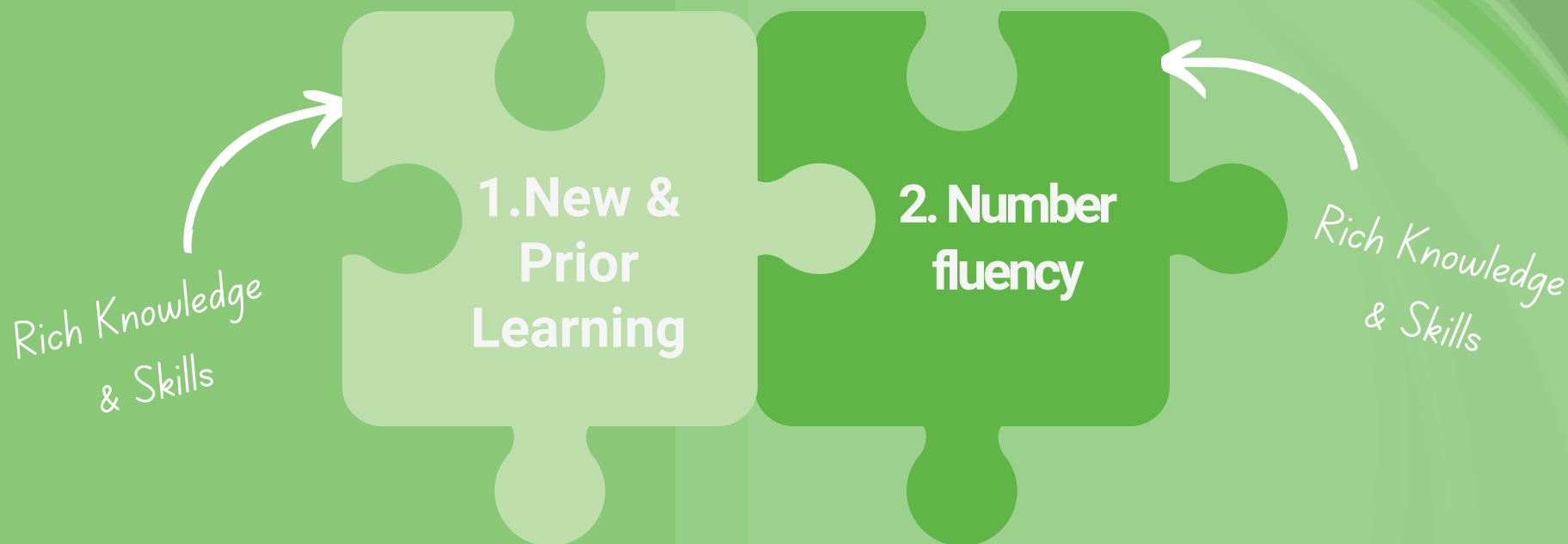
## # TWHF Enrich Maths



# TWHF ENRich Maths Curriculum



# TWHF ENRich Maths Curriculum



The TWHF ENRich Maths curriculum enables learning for each year group that is planned from the relevant National Curriculum objectives. These are blocked into themes or units and then divided into manageable steps to create a coherent mathematical journey through the learning. New learning is taught through the daily New Learning lessons and regular practice and review (MOT) sessions are used to practise, consolidate and revisit previous learning. Alongside this, daily opportunities to consolidate number fluency is built in to the day to allow for the efficient, accurate recall of key number facts and procedures.

**New Learning**

**Prior Learning**

**Number Fluency**

01

## New & Prior Learning

- Number & place value, 4 operations, FDP, Measurement, Geometry (shapes/position and direction) and Statistics
- Arithmetic skills
- Reasoning skills
- Problem solving

New Learning

To develop RICH knowledge and skills, students will be exposed to daily explicit teaching of **New** mathematical learning. **New learning** has been designed to enable a coherent learning progression through the curriculum. This enables all students to develop a deep and connected understanding of mathematics so that they can apply it in a range of contexts. Representation and structure has been considered so that teachers can carefully select representations of mathematics to expose mathematical structure. Variation is embedded into new learning to draw closer attention to a key feature of a mathematical concept or structure. Finally students are exposed to problems which enable mathematical thinking, which is central to how pupils learn mathematics.

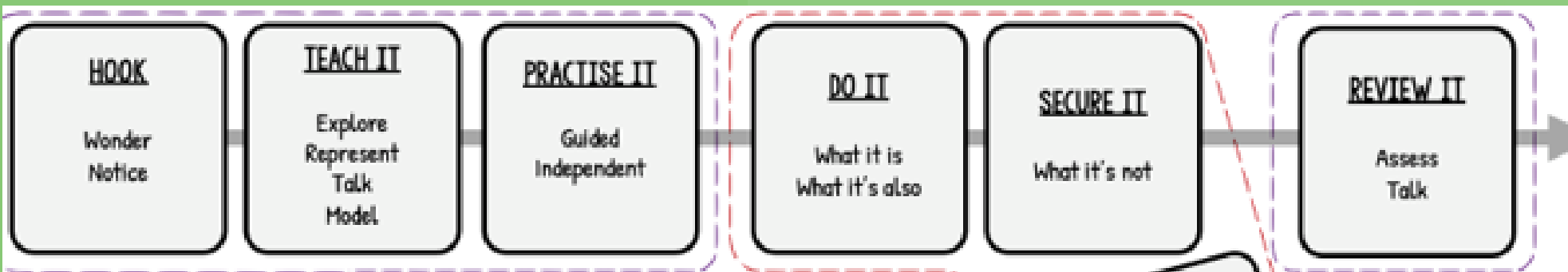
Prior Learning

Students will also be exposed to daily teaching and deliberate practice of tasks that activate **prior learning**. Through daily MOT sessions students will have opportunity to retrieve and use prior knowledge so that it can be easily remembered and recalled during New Learning sessions. MOT sessions will also include twice weekly arithmetic practice sessions and 'Keep-up' opportunities for children who need longer to fully grasp a new concept or skill.

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# TWHF ENRich Maths Curriculum

The CanDo maths resource is the **foundational source** of the ENRich Maths curriculum. This ensures the coverage and pace of a Maths Teaching for Mastery approach and the requirements of the National Curriculum are met. However this foundational source has been manipulated and supplemented to meet the needs of the students across the Trust. Across all components of the TWHF ENRich Maths Curriculum, supplementary high-quality resources have been sourced/produced to “enhance” the maths approached offered by CanDo Maths. This includes; explicit problem solving lessons; access to a wider range of complex and challenging maths reasoning and word problems, support around number fluency development and arithmetic practise and wider example of SAT ‘style’ questions.



**New Learning Lesson Structure:** When explicitly teaching new learning, lessons will follow a “gradual release of responsibility” model. The balance of direct teaching will gradually progress towards students completing deliberate practise tasks. This will be carefully managed by the teacher through an “ I do, We do, You do” process. Careful diagnostic task design allows students to deepen their learning and give feedback as to the depth the students have grasped the new concept.

1. New & Prior Learning

02

## Number fluency

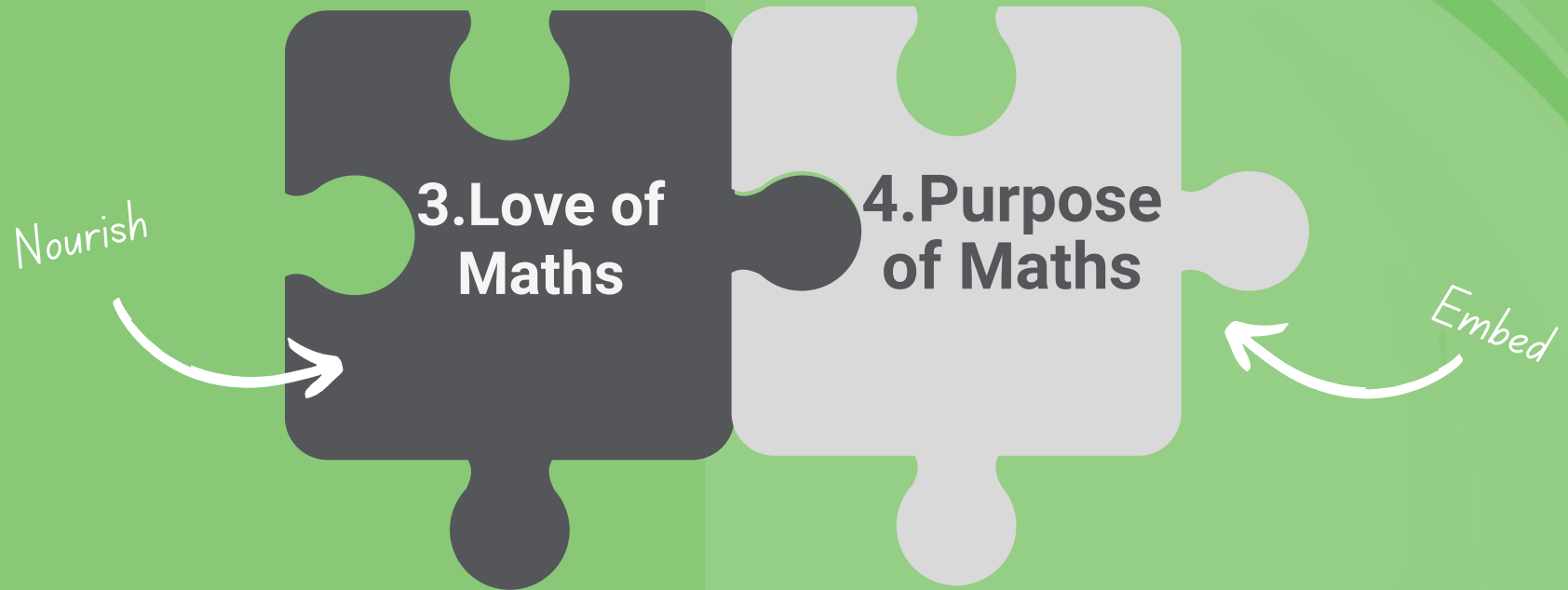
- 5 principles of counting
- Mastering number
- additive bonds
- multiplicative bonds

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Number Fluency

Short efficient, accurate recall of key number facts and procedures is essential for fluency, freeing students' minds to think deeply about concepts and problems. To support the development of this, the TWHF ENRich Maths Curriculum has been designed to offer daily opportunities for students to revisit and recall number facts and procedures through short high-quality tasks and activities. By regularly revisiting previously learned knowledge and skills enables students to have the flexibility to move between different contexts and representations of mathematics, to recognise relationships and make connections, and to choose appropriate methods and strategies to solve problems.

# TWHF ENRich Maths Curriculum



Although developing RICH Knowledge and Skills is at the core of the TWHF ENRich Maths curriculum, it is important that, alongside this, students have the opportunity to cultivate and NOURISH a love of maths and have experiences to use and EMBED their new skills across the curriculum. Separately, from the explicit teaching of Maths knowledge and skills, the new TWHF ENRICH Curriculum will have planned opportunities to develop a love of maths through a number of means including; STEM trips and experience days, opportunities to engage in STEM competitions, opportunities to apply maths in real life situations such as computer game development, cookery and construction; and opportunities to learn about famous mathematicians. This will give further purpose to maths as it allows students to embed and use maths to learn.

03

## A Love of Maths

- Maths as a discipline
- Maths as a life skill
- Maths as a career
- Maths for fun

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Alongside the RICH aspect of the TWHF ENRich Maths curriculum, there is a high-quality curriculum to cultivate and NOURISH a love of Maths. Central to the Nourish aspect of the Maths curriculum is a range of opportunities and experiences for students to engage in maths in the “real world”. This include; trips to STEM museums and exhibitions; interactive school visits and experience days led by STEM experts; opportunities to engage in and apply maths in real life situations such as computer game development, cookery and construction, Trust wide Maths competitions where maths skills and knowledge is celebrated.

Finally, the TWHF ENRich Curriculum will also offer suggested ideas, photos and guidance on how to create an effective Maths environment / corner within the classroom and a vault of high-quality ideas, resources on how to engage reluctant mathematicians .



04

## Purpose of Maths

- A vault of high-quality ideas and resources that embed various Maths skills to other curriculum subjects.
- A high-quality STEM careers programme.
- Access to high-quality Maths resources and materials

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As students develop RICH Maths knowledge and skills, they require opportunities to EMBED these across the curriculum. The TWHF ENRich Maths curriculum provides teachers and staff with a range of resources and guidance to help them plan for and enable students to use maths to learn about (and engage further) with the wider curriculum. These resources include; a list of high-quality tasks and resources linked to each subject; more detailed unit plans that link high-quality maths to various subject topics/themes i.e. statistics in science and measuring in Geography, access to high-quality maths resources that can be used to enhance subjects across the curriculum