Implementation: Maths at New Horizons Academy

We deliver a Maths curriculum using the White Rose Maths scheme, which is then adapted to be highly responsive to the fluid nature of our student population.

We utilise the Concrete-Pictorial-Abstract (CPA) approach to ensure deep understanding. Many of our learners arrive with gaps in conceptual understanding; by using physical manipulatives (concrete) and visual models (pictorial) before moving to formal calculations (abstract), we ensure that mathematical foundations are secure.

Identifying and Bridging Gaps

- Baseline on Entry: Recognizing that students join us at various points in the school year, we conduct baseline assessments to identify learning levels and needs as well as utilising ongoing formative and summative assessment to support continuous progression.
- Targeted Intervention: We use the White Rose Maths Intervention Programme to provide bespoke support. This involves small-group or 1:1 session designed to "bridge the gap" in prerequisite knowledge, allowing students to re-join their peers in age-related learning as quickly as possible.
- Retrieval Practice: Every lesson begins with retrieval practice to consolidate previous learning and ensure knowledge is transferred to long-term memory.

Adaptive Delivery

- Small Steps: We break down learning into the WRM "small steps" to prevent cognitive overload and provide frequent opportunities for success, which is vital for building the confidence of learners who have previously struggled.
- Real-World Context: We wrap mathematical concepts in functional, real-life scenarios—such as budgeting, cooking, or sports statistics—to answer the "Why are we doing this?" question and increase engagement.

Impact: Maths at New Horizons Academy

The impact of our curriculum is measured by the growth in our students' mathematical competence and, crucially, their confidence to engage with challenges.

Accelerated Progress from Individual Starting Points

Due to our robust intervention and small-step approach, students make significant progress from their respective starting points. We measure success by the "narrowing of the gap" between their chronological age and their mathematical attainment.

Reduction in "Maths Anxiety"

The most immediate impact is a visible shift in attitude. Learners who arrive with a "can't do" mindset develop a Growth Mindset. They become willing to make mistakes, use manipulatives to solve problems independently, and show increased resilience when faced with unfamiliar questions.

Functional Fluency

Our students leave us with the practical mathematical skills required for the next stage of their life. Whether transitioning back to a mainstream setting, moving to specialist settings or transitioning to secondary education, they can apply their knowledge of number, measure, and data to real-world situations with confidence.

Success in Reasoning and Problem Solving

Impact is evidenced by students moving beyond simple fluency. They develop the ability to approach multi-step problems logically. This development in computational thinking has a "knock-on" effect, improving their problem-solving skills in other subjects and in their social interactions.

Data-Informed Success

We see and assess impact through:

- Formative Assessment: Daily success in small steps
- Summative Assessment: Progress in termly WRM standardized tests.
- Student Voice: Pupils expressing a sense of pride in their mathematical achievements and a newfound "love for the subject."

Mathematical Talk and Oracy

We encourage students to "reason" aloud. By using sentence stems and mathematical vocabulary prompts, we help pupils move beyond just "finding the answer" to explaining their thinking, which fosters deeper critical thinking skills.

Maths- Supporting Resources

Maths

(Based on White Rose Maths SOW)

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KS1 NHA Maths Curriculum	Place Value	Place Value	Addition and Subtraction	Addition and Subtraction	Time	Shape
LKS2 NHA Maths Curriculum	Place Value	Addition and Subtraction	Multiplication and division	Fractions	Money & Time	Shape
UKS2 NHA Maths Curriculum	Place Value	Addition and Subtraction	Multiplication and division	Fractions	Decimals & Percentage	Shape