



## Trust Numeracy Intent

We are committed to raising the standard of numeracy for all students across our entire curriculum so that they have the knowledge, understanding and confidence to successfully cope with the demands of Mathematical challenges in further education, employment, and wider life. We believe that it is the responsibility of the mathematics team to teach the basic Numeracy skills but that it is the responsibility of **every teacher in every subject to develop confidence, fluency and understanding of Numeracy.**

## Numeracy Pathway Intent

Our aim is for every **student to leave Brooke Weston Academy with the numeracy skills that will enable them to successfully cope with the demands of Mathematical challenges in further education, employment and wider life.** This can be achieved through our **bespoke** numeracy pathway: offering **tailored, targeted** support.

Teaching staff, learning support assistants and mentors offer a plethora of opportunities for students to build their confidence, be ambitious, work together, and have achievable high expectations of themselves. Sequencing and progression of our curriculum is centred around fostering an intrinsic motivation for learning. The curriculum is personalised around supporting students to simultaneously meet their academic, wellness and social goals whilst fostering both a positive self- image and one of the surrounding community.

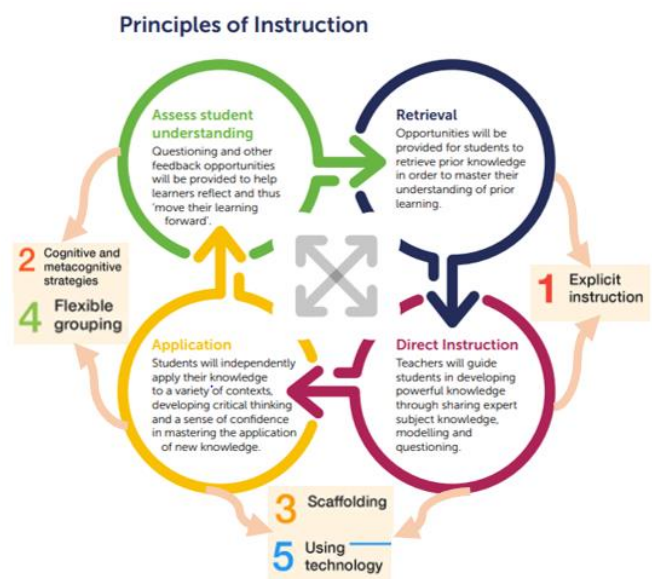
Underpinning SEND support is the Brooke Weston Academy Numeracy Pathway. This bespoke journey enhances whole school numeracy by allowing extra time and space for numeracy specific focus. This is integrated into the curriculum provision for those who require **bespoke support** to remove potential barriers to progress. Our curriculum recognises links between **lower numeracy attainment** and further challenges, such as access to employment, poorer health, job satisfaction and mental well-being. Offering this pathway facilitates life-long skills that will support our students both in their Brooke Weston journey and out into the world.

## Improving numeracy by a tiered approach

High quality numeracy teaching across the curriculum, which includes the five a day strategies from Gary Aubin, will reduce the requirement for extra numeracy support; a small number of students however will require additional support in the form of structured, targeted, and bespoke interventions to make progress.

The five a day strategies can be integrated into day to day teaching practice to raise attainment among children with additional needs, as well as their classmates. (EEF Gary Aubin, 2022)

This work is underpinned by the knowledge that :  
Low numeracy skills increase the likelihood of unemployment and lower wages and has links with poorer health, job satisfaction and mental wellbeing (OECD, 2016). The most recent government commissioned survey for adult skills saw that 49% of those surveyed achieved entry level 3 or lower which is equivalent to that achieved from a primary school child (Ellicock, 2019).



## Universal provision for students at Brooke Weston Academy:

- Working towards a unified approach to teaching key mathematical concepts through whole school staff training.
- Access to high quality numeracy material in all subjects with a whole school approach to consistent mathematical methods, vocabulary and use of calculators.
- Sparx Math's homework platform for years 7 – 10.  
Sparx creates tailored practice homework platform for every student each week. The practice is both challenging yet achievable. The practice uses spaced repetition and interleaving to support a change in students' long term memories. Sparx is inclusive and can adapt to all students' current level of expertise. This promotes engagement, confidence and ultimately learning. According to RAND research, the use of Sparx for the recommended one hour a week was associated with an increase of almost 20% of a (predicted) GCSE grade. During the previous academic year (Sept 2022 – April 2023) students have completed over 1.2 million questions correctly and have spent almost 20,000 hours on the platform with year 7 and 8 students making on average 3 levels of progress with their times tables.
- An outstanding mathematics department which teaches the core mathematical methods, working out, vocabulary and calculator skills that underpin numeracy across the entire curriculum
- All students complete the baseline assessment provided by Sparx within a lesson with teacher marking the assessment and input the data into a QLA spreadsheet. Students are then provided with a bespoke proforma which is on the Sparx account, this is where they can complete their feedback. Teacher will also reteach topics that are a whole class weakness. Curriculum will across be adapted based on the smith performa's created from the assessment. Students to complete shadow assessment in December to monitor progress on high tariff topics and repeat process again if needed.
- All students regardless of starting point have a well sequenced, connected, and timely curriculum that develops Numeracy skills that underpin all subjects, not just mathematics.
- An awareness of where numeracy skills are used in other subjects and make explicit, authentic connections to them identify.
- Intervene with students whose level of numeracy limits them from effectively accessing the entire curriculum.

## Targeted pathway provision at Brooke Weston Academy:

- After school intervention sessions for year 11 ran by specialist maths teachers.
- Additional classroom support via the student-mentoring programme.
- Students are set based on attainment, allowing for smaller class sizes for lower attaining students.
- Additional small intervention class for students in year 9 that has more of a numeracy focus.
- Additional homework club ran by the SEND department where they can get individual support.
- Additional focus on multiplication tables with the intent being to reduce cognitive load.

## Intensive pathway

- Daily coaching for numeracy using Plus 1 or Power of 2.

## Bibliography

1. Oecd.org. 2016. *Skills Matter FURTHER RESULTS FROM THE SURVEY OF ADULT SKILLS*. [online] Available at: <[https://www.oecd.org/skills/piaac/Skills\\_Matter\\_Further\\_Results\\_from\\_the\\_Survey\\_of\\_Adult\\_Skills.pdf](https://www.oecd.org/skills/piaac/Skills_Matter_Further_Results_from_the_Survey_of_Adult_Skills.pdf)> [Accessed 6 January 2022].
2. Ellicock, M., 2019. *Numerate nation? What the UK thinks about numbers*. [online] cl.ac.uk. Available at: <<https://www.kcl.ac.uk/policy-institute/assets/national-numeracy-day-2019.pdf>> [Accessed 6 January 2022].
3. Educationendowmentfoundation.org. Five a day to improve SEND outcome [online]. Available at: <<https://www.educationendowmentfoundation.org.uk/news/eef-blog-five-a-day-to-improve-send-outcomes>> [Accessed 28 April 2023]
4. Rand.org. Analysing the relationship between Sparx Maths and maths outcomes. Available at : <<https://www.rand.org/randeurope/research/projects/analysing-the-relationship-between-Sparx-maths-and-maths-outcome.html>> [Accessed 28 April 2023]

