# ‘Justification for our curriculum ambition’: A case study of how Teaching for Mastery is Sustained at Mountview School.

## Area of interest

This visit took place as part of the NCETM’s ‘Evaluator in Residence’ initiative. The visit gathered evidence towards the Primary Strategic Goal with an overall research question, ‘How do the Teaching for Mastery Sustaining Work Groups support lasting change in schools?’.

## About the school

Mountview School is a large primary school situated in Ipswich, a Priority Education Investment Area (PEIA). The school currently has two forms in most year groups; two year groups have three forms. The school has a higher-than-average proportion of children from disadvantaged backgrounds and a higher-than-average proportion of children speaking English as an Additional Language. The proportion of children with Special Educational Needs is broadly comparable to the national average.

Mountview School has been in the ‘Requires Improvement’ Ofsted category since 2017 and has had three subsequent inspections and monitoring visits (one virtual due to COVID). The school is anticipating an Ofsted visit at any time. 2019 Ofsted reports found the school’s curriculum as not providing enough challenge for all children, and mathematics teaching as not yet consistently good. In 2021 Ofsted reported that ‘all teachers have had extensive training in up-to-date, research informed teaching techniques’ and ‘the approaches to teaching English and mathematics are highly consistent across the school and mean that the quality of teaching and learning is improving.’

Mountview School has undergone rapid change since 2019. The current Headteacher has been in post since 2020 and the leadership team was restructured. The school is part of a Multi-Academy Trust with approximately 20 schools including infant, primary, secondary and specialist provision schools across two counties. The proportion of disadvantaged pupils attending schools in the trust is above that found nationally.

Mountview School was chosen as a case study of a school in the Sustaining phase of Primary Teaching for Mastery in an area of high economic disadvantage.

## About the visit

An evaluation lead from the NCETM visited the school for a morning in May 2023 with the Maths Hub Lead. They were warmly received by the Headteacher, Deputy Headteacher and Maths Lead, who worked with the visitors all morning. During the visit the team saw maths teaching in years 3-6, spoke extensively with leadership and had the opportunity to look at curriculum planning.

## About Mountview’s engagement with the Maths Hub and Teaching for Mastery

A teacher from Mountview School attended the NCETM Professional Development Leadership programme in 2017-18, and the school began the Teaching for Mastery development Work Group in 2018-19. A change of personnel in school, and a school focus on phonics and literacy, meant there was no engagement in 2019-20. The school restarted the Development Work Group in 2020-21, before progressing to the Embedding Work Group the following year. The (then) newly appointed Maths Lead also completed the SKTM course in 2019-20.

In this academic year 2022-23 Mountview School is part of a Teaching for Mastery Sustaining Work Group, the ‘Seeing Number’ Research and Innovation Work Group, and the Mastering Number programme. The school senior leadership team were excited to find out the school had a place on the Mastering Number Key Stage 2 programme in 2023-24.

## The story of mathematics in Mountview School 2018-23

### 2018-20 Pre-pandemic: a Power (maths) struggle?

Mountview invested in Power Maths for the whole school in 2018, and middle and senior leadership at the time presented the scheme as ‘Maths Mastery’. A change in leadership shortly after the introduction of Power Maths may have contributed to its perceived limited initial impact.

### 2020-22 Pandemic years: grasping the opportunities.

The Deputy Headteacher leads maths during the academic year 2020-2021. The current Headteacher started in September 2020. Leaders felt that the pandemic, coupled with the recent release of the DfE and NCETM guidance document, gave the school permission to ‘do things differently’ in mathematics. All teaching staff had noticed that children had gaps in their mathematics knowledge, and instead of ‘ploughing on with the curriculum’ decided to spend more time on fundamental concepts, starting with ‘the four operations’.

In the 2021-22 academic year saw the appointment of the current Maths Lead following a return from maternity leave. She had not previously considered herself a maths expert but enjoyed the challenge. The two leaders designed a school-wide ‘3-year recovery plan’ mathematics curriculum using their existing Power Maths resources and the NCETM curriculum prioritisation document. Using the principle that ‘you cannot create more time’, they identified key Power Maths units that needed to be taught in each year group to build deep understanding and address identified gaps. Staff were unafraid to teach units that ‘were for the year below’. The school continued to use the PiXL assessments which are used three times a year to monitor progress and identity learning needs. Teachers reported feeling grateful that the curriculum had been stripped back.

### 2022-23 and beyond: High expectations and challenge for all.

Leaders feel confident in their (continually evolving) mathematics curriculum and have prioritised mathematics-specific professional development for all teachers, saying they are currently ‘heavy on maths CPD’. Mountview has chosen to look at mathematical vocabulary and STEM sentences as their Sustaining focus alongside embedding the practices learnt in Mastering Number training. They are also starting maths-specific training for their Learning Support Assistants and offer sessions for parents, including a ‘make a rekenrek’ session.

A driver for the professional development is ensuring all children succeed in mathematics. Senior leadership describe a high proportion of children who have limited home opportunities to develop mathematically and that the school must be a place where mathematics is taught for deep understanding to all. Leaders identified that the children already had a love for maths and this needed to be developed into greater mathematical resilience and observation; children should be asking themselves ‘what do you notice?’

The school described the continuing evolution of the curriculum. Senior leaders were confident that their approach, including Power Maths, the NCETM Spine materials, the curriculum guidance and prioritisation documents and PiXL maths was seeing success. There were enough resources to reduce lesson-to-lesson planning whilst ensuring that the curriculum was coherent, prioritised embedded learning of concepts and was appropriate to the children. The school is an advocate for piloting a new initiative before rolling is out: they were trialling Times Table Rock Stars with one year group.

Leaders are confident that learning, attainment, and progress is increasing; data presented from Y4 PiXL maths indicated that the school was now exceeding the average attainment on most assessment questions, a turnaround from 2 years ago.

The evaluator observed the principles of Teaching for Mastery during maths lessons, including the use of multiple representations. When students were asked to represent ‘one hundredth’ in their own way, students used a number line, a fraction, and a place value chart. Students recorded fractions by writing the denominator, the vinculum and then the numerator, with one student narrating their work saying, ‘the whole is split into one hundred equal parts, and one hundredth is one of them’.

Evaluator’s reflections

After spending a morning in the school, the evaluator identified 4 themes that have enabled Teaching for Mastery to be sustained in Mountview.

### Leadership tackled ‘one part of the School Development Plan at a time’.

The school has undergone rapid changes to their leadership, staff, and curriculum since 2018, when global school improvement was required. The decision to ‘pause’ Teaching for Mastery in 2019-20 allowed staff to focus on their phonics and literacy expertise, which was the immediate development priority. Once this was embedded the school then went ‘heavy on maths CPD’. Having one strategic focus at a time means the leadership and trust can release multiple members of staff to attend professional development sessions appropriate for their specific needs.

### Teaching for Mastery developed in a sustainable way because the school utilised existing opportunities and resources best suited to the needs of staff and students.

The ‘Power Maths’ scheme was used by all staff prior to the current leadership team being in place, and everyone in the school is familiar with it, so it was a deliberate decision to adapt, rather than replace it as part of transitioning to a Teaching for Mastery curriculum. The school uses NCETM and Maths Hubs resources and professional development opportunities that are needed to develop and sustain their mastery approach. PiXL assessments used to identify gaps and prioritise topics. The evaluator observed a teacher using an ‘Nrich’ activity to deepen and embed learning about time.

### Mountview School leadership understand the challenges of working in an area of economic deprivation. They make decisions that are workable within these challenges.

Senior leadership recognises that the school’s location and catchment present extra challenges for the school. A higher proportion of students than average will be behind expected levels of development on entry. This includes vocabulary, literacy, numeracy, and self-regulation. Students are less likely to have ‘automatic’ support from home to reinforce curriculum learning happening in school. School teaching staff turnover might be higher than schools in less challenging areas, and Learning Support Assistants, who are recruited from the local community, may have fewer academic qualifications, and more home or caring commitments than those in more affluent areas.

Decisions made about curriculum planning and staff development are made with this knowledge. The maths curriculum is designed so all children can gain a deep knowledge of fundamental concepts, with fewer topics being covered if necessary. Staff development includes training for Learning Support Assistants. Multiple members of staff are trained in each initiative and are expected to strategically disseminate training during internal meetings, because ‘if someone leaves, we need someone else to pick it up’. The school does use supply teachers to cover classes where staff members are attending training if necessary, and to release staff to engage in internal professional development during school hours if possible: leadership tries to ‘give people what they can.’

### Engaging with hub expertise and evidence informing Teaching for Mastery provides external justification for Mountview’s ambitious curriculum decisions.

The school’s location and catchment are not used as an excuse to lower expectations of school improvement and pupil attainment. Teachers have received professional development in cognitive science, using (for instance) interleaving, and cognitive load reduction strategies in their maths practice. Weekly staff meetings, additional release time for middle leaders, and some evening sessions are used for curriculum development in priority areas, including (for instance) year 5 and 6 teachers working together to ensure a smooth transition between year groups. All students are taught in mixed prior attainment groups and expected to engage in paired and group discussion.

Planning and teaching an ambitious curriculum has not been easy. The leadership team feel that engaging with the Maths Hub, and the expertise therein, is a source of validation evidence: ‘We are a double-RI school, we need to justify our curriculum choices’.

Conclusion

The evaluator visiting Mountview School saw lots of evidence of the implementation of a Teaching for Mastery approach that meets the needs of the school students and staff. The leadership team have strategically used existing school resources, and the Maths Hub offer, to develop a curriculum and pedagogies that support their vision. Leadership in Mountview School acknowledges the ongoing challenges faced by the school and the pressure they are under to justify its curriculum and approaches to internal and external stakeholders. There is progress data evidencing improvement in students’ understanding of, and attainment in, mathematics which can be sustained and built upon over time.