Curriculum Report 2024-25
Mathematics
Curriculum leader: Kathryn Pagnello

Intent

At Christ Church, we recognise that mathematics is an important life skill as well as fundamental to the vast majority of career pathways. Therefore, it is our intent that we provide a high-quality mathematical education which will ensure children move to the next stage of their education being numerate, confident and well-equipped. Through quality first teaching, with our primary aim being mastery of the curriculum for all children, we aim to unlock children's potential in maths and make it a fun, engaging subject which is accessible to all. Our intention is to show children they can master the maths curriculum and that maths is an area where all children can experience success and is not something to be anxious about. With this in mind, we recognise the importance of being fluent in the basics and provide a variety of opportunities for children to practise their automatic recall to make it more rapid and accurate.

All children are encouraged and given the opportunity to reason mathematically and solve problems.

With maths being an interconnected subject, children not only need to make connections and links between mathematical concepts but they need to be provided with concrete experiences of using maths outside the maths lesson. Wherever possible, we aim to use maths in our other subject areas so that children have the opportunity to experience interwoven learning and also to understand the importance of everyday maths in other areas.

Children who are working at greater depth in each year group receive input which challenges their reasoning and problem-solving skills using the content which has been taught. Only once a rich offer has been provided where children can demonstrate they can make connections and use and apply their skills broadly would we consider moving on to what might potentially be new content.

A Spiral Curriculum

The manner in which the National Curriculum Programmes of Study are set out leads to spiralled learning between each year group. The children revisit the same mathematical concepts but each time they are introduced to new and more challenging learning which builds upon what has gone before. This not only happens between each year group but also within a year group where teachers design a year group curriculum which spirals back to the main, key areas.

Teaching for Mastery

At Christ Church we do not use any mastery scheme, instead, our view of mastery is aligned with that of Derek Haylock (2019) and the National Centre for Excellence in the Teaching of Mathematics (NCETM):

Mastering maths means pupils acquiring a deep, long-term, secure and adaptable understanding of the subject. The phrase 'teaching for mastery' describes the elements of classroom practice and school organisation that combine to give pupils the best chances of mastering maths. Achieving mastery means acquiring a solid enough understanding of the maths that's been taught to enable pupils to move on to more advanced material. (NCETM, 2019)

Through quality first teaching we aim for all children to acquire mastery in maths. Teachers use the progression document for each strand in maths to ensure learning is built cumulatively. It is important that we check children's understanding of the methods they use and calculations they can do. This is because many of the children are capable, for numerous reasons, of using the most efficient methods quickly and with ease, but there may be underlying gaps.

Key points relating to our intent

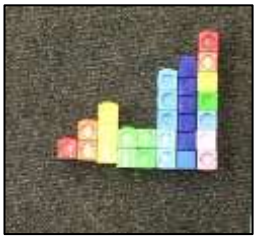
Although as a general rule we endeavour to follow the National Curriculum in terms of how it has divided the programme of study for each key stage, we may also choose to teach content earlier or later depending on the cohort. This is done for many reasons and it is specific to our context to ensure the needs of each cohort are met. The National Curriculum helpfully highlights that the set programmes of study are to be met by the end of the relevant key stage.

Children who have learnt different written calculation methods outside school will have their understanding checked through practising our set methods in each year group to ensure their understanding of number is secure (with teaching for mastery in mind). If this is secure, then they will be able to continue to use either method.

Implementation

- Maths is taught by class teachers with the support of SLT and the curriculum leader.
- Maths is taught every day, when possible, to ensure not only curriculum coverage, but also mastering maths so that pupils have a deep and secure understanding of the subject.
- Yearly overviews, which incorporate the 'Ready to Progress' criteria, are used to ensure curriculum coverage across the school.
- CPD is attended by the curriculum leader and other staff members and fed back to colleagues in meetings and training. The curriculum leader liaises with other Camden Maths curriculum leaders and other mastery specialists to learn new practice to share with colleagues.
- Assessment takes place continuously as part of everyday teaching practice. Teachers check prior knowledge before introducing new content and then plan lessons according to this. Teachers check children's knowledge on the carpet through targeted questioning and work on individual whiteboards and then through marking in lessons once children are completing work independently. Misconceptions are identified within lessons and children who are identified as needing further input are supported with adaptations within the lesson or supported through interventions, booster and further teaching from the class teacher. Learning is revisited through the use of morning work and low stakes quizzes throughout the year to ensure understanding is embedded.

- Key learning for each year group is identified in our progression documents and is focused on the 'Ready to Progress' criteria. These areas are assessed by teachers before moving onto the next year group. Written assessments also take place termly to monitor progress and results from these assessments inform future teaching.
- Some children are closely monitored using fine tracking if teachers and leadership believe they will not reach the end of year expectation in the subject. These children are often also supported with short-term or long-term interventions to ensure progress.
- Adaptations are made as and when necessary for disadvantaged children and children with SEN. Teachers set high expectations for all pupils and aim to set work that provides universal provision, reducing the number receiving targeted and specialist support. However, there are some circumstances where some children do require a targeted or specialised curriculum.
- Parents' understanding of how maths is taught and the key calculation strategies is supported by parent workshops in Reception, Year 2 and Year 4 and our termly curriculum leaflets. Times table workshops are also offered to parents.
- From Year 2 upwards, children take part in the 'Times Table Challenge'. This endeavours to aid teaching to ensure children are fluent in their times tables by the end of Year 4. To support this, children are tested on their times tables weekly from Year 2 to Year 4. (This sometimes continues in Year 5 depending on the needs of the class). In Y6, times tables are consolidated with weekly 'Bringing Down the Minutes' tests that aim to increase speed and fluency when recalling times table facts.
- Times tables are taught in a specific order to ensure children have a chance to consolidate their understanding of one before moving onto another.



- In Years 4, 5 and 6, children complete arithmetic tests weekly to rehearse key skills. Their results are closely monitored by teachers so that gaps can be addressed and feedback on tests is also shared with parents.
- Use of morning work and other spaced retrieval activities to rehearse prior learning reinforces our spiralling curriculum.
- Book scrutiny and learning walks are carried out by SLT and the curriculum leader.

- When possible, opportunities are used to make maths cross-curricular so that children are able to use skills they are already secure with in a different context (e.g., use of statistics in Science or Geography).
- Children who exceed expectations have the opportunity to take part in the UK Maths Challenge each year and some Year 5 and 6 children are invited to take part in weekend classes at the Royal Institute for Mathematics.

Impact

- Consistently high percentage of pupils in KS1 and KS2 reaching and exceeding national expectations.
- 2025: 88% of children in KS2 were working at the expected standard at the end of the year with 72% reaching greater depth. Both of these figures are higher than local and national results and our greater depth per centage is significantly higher.
- 2025: 89% of children in KS1 were working at the expected standard at the end of the year with 36% reaching greater depth. Again, these figures are higher than local and national averages.
- The majority of children in Year 4 are confident and fluent in times tables (2025 school average score, 22.5, 2025 national average 21.0)
- Children talk about maths positively and are eager to be challenged.
- Children take part in a range of problem-solving activities that draw out their ability to reason about maths.

Whole school standards (three-year trend)

Boys' and girls' standards and EAL and non-EAL standards remain very similar.

End of KS1 results

Percentage of pupils reaching the expected standard or above

	Mathematics		
	2023	2024	**2025**
Christ Church	***89%***	***93%***	**89%**
Camden	71%	-	-
National	68%	-	-

Percentage of pupils reaching the higher standard

	Mathematics		
	2023	2024	**2025**
Christ Church	***32%***	***36%***	***36%***
Camden	21%	-	-
National	16%	-	-

End of KS2 results

Percentage of pupils reaching the expected standard or above

	Mathematics		
	2023	2024	**2025**
Christ Church	***86%***	***100%***	***88%***
Camden	80%	82%	81%
National	73%	73%	74%

Percentage of pupils reaching the higher standard

	Mathematics		
	2023	2024	**2025**
Christ Church	***50%***	***71%***	***72%***
Camden	29%	33%	37%
National	24%	24%	26%

Average scaled score

	Mathematics		
	2023	2024	**2025**
Christ Church	***107.9***	***111.7***	***111.2***
Camden	105.5	107.2	107.6
National	104	104	106

Progress score – no 2024/2025 progress scores (COVID)

	Mathematics		
	2023	2024	**2025**
Christ Church	***+3.0***	-	-
Camden	+2.1	-	-
National	0	-	-

Ofsted Research Review and Subject Report

The Ofsted Research Review (May 2021) reviews a wide range of relevant educational research into both primary and secondary maths teaching and highlights features which may be present in high quality maths education. See our Autumn 2022 curriculum report for a summary and our response to the review. The Ofsted Mathematics Subject Report (July 2023) reviews a wide range of best practice in both primary and secondary maths teaching and makes recommendations for implementation in schools. See our Autumn 2023 curriculum report for a summary and our response to the report.

Last year's key developments and successes in 2024/25:

1. To continue the existing successful partnership with the NCETM through the curriculum leader's work running an embedding workgroup and the Year 2 teacher's work as part of a sustaining workgroup.
Intended Outcome: Curriculum leader to continue to refine and develop own subject knowledge and use this as a tool to continue to provide CPD for staff at Christ Church, but also teachers from other schools.

2024/25 target achieved: Curriculum leader successfully ran an embedding teaching for mastery workgroup for five local schools last year and provided teaching for mastery CPD for teachers and leaders from these schools. This involved observing the curriculum leader teach maths lessons, engaging in collaborative planning and responding to research. CPD was provided for staff members at Christ Church in the form of staff meetings to further develop subject knowledge.

2. To continue to plan for children to take part in a maths day to increase even further children's enjoyment of maths and their understanding of the wide range of applications for maths skills.
Intended Outcome: All children to experience enrichment of maths at school (as well as ongoing maths enrichment for some pupils through outside and additional opportunities).
Intended outcome:

2024/25 target achieved: A successful maths day took place in the spring term. Children in all year groups all focused on one specific area of geometry during the day and then the whole school gathered together to share the learning that had taken place in an assembly at the end of the day. In addition to this, each class took part in a shape and space workshop with an external company who came into school for the day. These workshops were extremely successful and the children really enjoyed them. It is planned to repeat this with another maths day in the coming year.

3. To successfully run internal mastery workgroups for teachers across the school.
Intended Outcome: Curriculum leader to continue to develop teachers' knowledge of teaching for mastery in line with our intent for our maths curriculum.

2024/25 target achieved: Curriculum leader successfully ran five internal workgroup sessions for a group of teachers at Christ Church which focused on developing teachers' understanding of the principles of teaching for mastery. This involved participating teachers having the opportunity to watch the curriculum leader teach their class with a focus on one of the five big ideas (representation and structure; fluency; variation; mathematical thinking; and coherence) and then engage in evidence based professional development led by the curriculum leader. All teachers spoke positively about the workgroups and implemented changes to their practice as a result. The model will run again next year, but with a wider curriculum focus.

4. To review and refine teaching of times tables across the school.
Intended Outcome: Times tables continue to be consistently and progressively taught to ensure all children learn and remember all of the key facts.

2024/25 target achieved: Curriculum leader worked with teachers in y2, 3 and 4 to review our current policy for the teaching of times tables. Refinements were made to teaching methods used and these were reviewed through the year. For example, more use of the counting stick was introduced and teachers discussed the impact of this. In addition, more emphasis was placed on practice for the end of year 4 multiplication check. Our average MTC score was 22.5 which was just above the Camden average of 22.2 and above the national average of 21.0. Our percentage of children achieving full marks was 26% which is below the national average of 37%. With that in mind, we will continue to think of the best ways to prepare children for the check and ensure teaching of times tables continues to be robust and effective.

Additional successful development activities which have taken place in 24/25:

Successful taking on of an additional Teaching for Mastery workgroup for TAs.

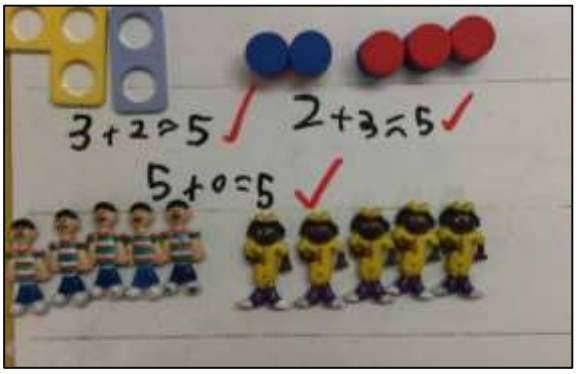
Midway through the year, the curriculum leader took on an additional responsibility as a teaching for mastery specialist and took over the delivery of the TA Teaching for Mastery workgroup for the maths hub. This workgroup will also continue to run at Christ Church in the following academic year.

Key targets and actions moving forward (development priorities for 2025/26):

Target and *intended outcome*	Planned actions (including dates where applicable)
1. Review and refine Christ Church curriculum where needed in light of the government's Curriculum and Assessment Review *Intended outcome: Christ Church curriculum aligns with national curriculum and other statutory guidance.*	Review the government's Curriculum and Assessment review, when published, and identify any areas for update or refinement in the Christ Church curriculum. Update planning and related documentation, including 'curriculum pack' and 'curriculum statement' for the subject, to reflect any updates. Ensure appropriate professional development and resources are in place for any changes or updates.
2. To continue the existing successful partnership with the NCETM through the curriculum leader's work running two teaching for mastery workgroup for teachers and teaching assistants. *Intended Outcome: Curriculum leader to continue to refine and develop own subject knowledge and use this as a tool to continue to provide CPD for staff at Christ Church, but also teachers from other schools.*	Curriculum leader to attend relevant training, and lead six, half-day workgroups for teachers and four half day workshops for teaching assistants from other schools to support their teaching for mastery journey. Curriculum leader will also work with other professionals from across the country to share good practice.
3. To build on the success of last year's maths day by planning to do this again, making changes based on last years' experience.	Curriculum leader to discuss with date SLT. Curriculum leader to use increased teaching capacity this year to work collaboratively with other members of teaching staff to plan and lead the day.

Intended Outcome: All children to experience enrichment of maths at school (as well as ongoing maths enrichment for some pupils through outside and additional opportunities).	
4. Successful completion of the NCETM 'Mastering Number' programme for Year 4 and Year 5. *Intended outcome: Support even more children to leave lower KS2 with secure times table facts and support even more children in Year 5 to develop their fluency and reasoning skills.*	Curriculum leader and teaching staff to attend launch. Teachers to attend termly Zoom sessions. Teaching of the sessions to begin in Autumn 1. Curriculum leader to observe learning and take feedback from staff to ensure the programme has the desired impact.

Professional development and links outside the school



Professional development in school

Professional development in school is provided for all teaching staff by the curriculum leader and is done so in a number of ways. Staff meeting time is often allocated to maths and the curriculum leader leads sessions focusing on a particular area. For example, teachers' subject knowledge of different additive structures was addressed last year. Other staff meetings have focused on collaborating on refining our teaching of times tables and developing our use of stem sentences.

In addition to this, maths professional development was provided for a group of teachers at Christ Church last year led by the curriculum leader based on the NCETM model of a teaching for mastery workgroup. Teachers met once a half term to explore the '5 Big Ideas' and engaged in research-based professional development which also included an opportunity to observe the curriculum leader teaching teachers' classes. These half day sessions included 4 teachers (2 of whom were ECTs and 1 trainee) and, in addition to this, an additional teacher attended the curriculum leader's external workgroup with teachers from a range of schools.

Professional development for staff also took place in the form of in class support in particular year groups to develop teaching and learning of mathematics. The curriculum leader continues to support planning in a range of year groups and is an active teacher of mathematics across the school as part of her Teaching and Learning lead role.

Professional development for curriculum leader

Professional development for the curriculum leader takes place through attending the Camden subject network meetings three times a year. Each term, the curriculum leader has the chance to attend these sessions and engage in professional development which is then used to make refinements back at Christ Church if necessary. These meetings also provide the opportunity to listen to guest speakers, analyse data and find out more about any national updates.

Additionally, the curriculum leader engages in ongoing professional development as part of her role within the NCETM as a teaching for mastery primary specialist. Three regional training days are attending along with three local training days each year. These days are a key component of the role, designed to bring together educators from local areas to collaborate, share expertise, and develop strategies for improving mathematics education within and beyond their own schools.

Links with other schools

The curriculum leader's work with the NCETM means that teachers from a range of other schools across a range of boroughs come to Christ Church to be a part of a teaching for mastery workgroup run by the curriculum leader. These workgroups aim to help schools and teachers develop, embed, and sustain a mastery approach to teaching mathematics, with the overarching goal of improving pupil outcomes and developing deep, connected understanding of the subject. Part of the workgroup offer in 2024/25 also included school visits. The curriculum leader visited a number of schools for a whole day or half a day to support them with teaching for mastery. In addition to this, TAs from a range of local schools now also attend subject knowledge teaching for mastery workgroups at Christ Church to help support the development of their mathematical subject knowledge.

Last year, as part of Christ Church's curriculum support offer, the curriculum leader also supported another local school by working with their curriculum leader who was new to the role to review and develop key parts of their mathematics curriculum.

Pupil Voice

Pupil voice discussions in autumn 2024 demonstrated that children could talk confidently about what they were currently learning about:

'We are learning about greater than and less than.' (Y1 pupil who modelled symbols)

'We are learning our 2 times tables.' (Y2 pupil who confidently answered times table questions)

'We've been doing column addition and subtraction; it's important to lay it out properly.' (Y3 pupil)

'We have been rounding numbers to the nearest 10,100 and 1000 and we practise our times tables a lot.' (Y4 pupil)

'Multiples and factors. Like factor x factor = product. A multiple is a multiple of the factor.' (Y5 pupil)

'Long division. It's tricky, but I get it now.' (Y6)

Pupil voice discussions in spring 2025 demonstrated that children could explain what feedback looks like in maths:

All children spoke about what our yellow and pink highlighters mean.

'Yellow means try again' (Year 2 pupil)

'Yellow means we can try again like if we get something wrong in maths. It also means try something else in maths like an extra question.' (Year 5 pupil)

What makes our curriculum provision for maths exceptional and beyond the expected?

- Exceptional outcomes for children across the school, particularly KS2 results.
- Enrichment opportunities for children for whom maths is a particular strength, for example participation in the UK Maths Challenge, borough-wide competitions for times tables for Year 4 and Saturday sessions for Year 5 children with the Royal Institute for mathematics.
- Curriculum leader's involvement with the NCETM, particularly work as a mastery specialist and the impact this continues to have at Christ Church.

Key points for discussion about this report

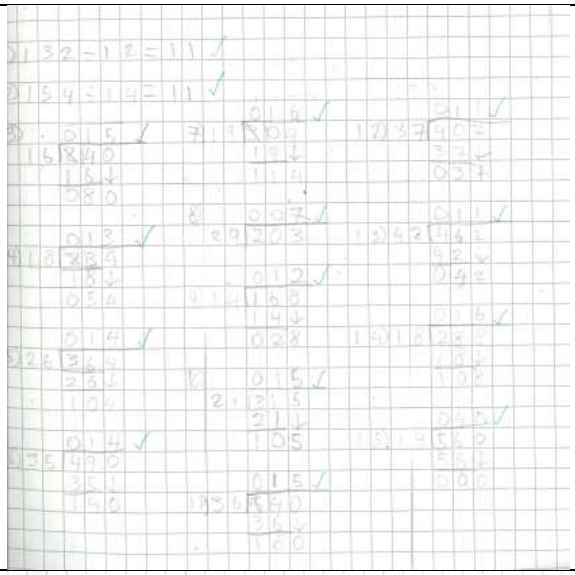
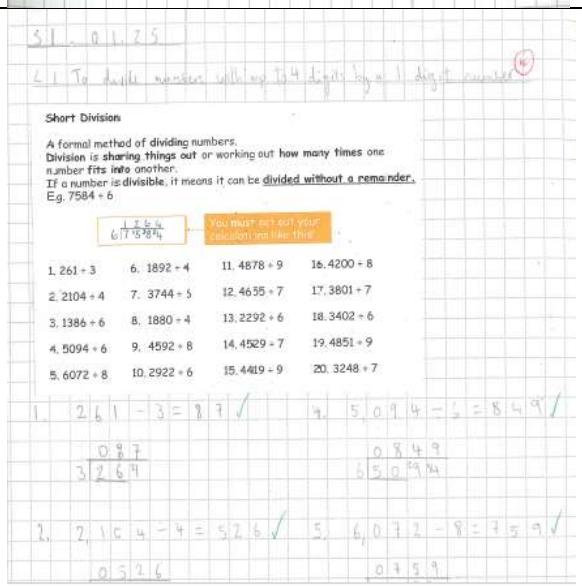
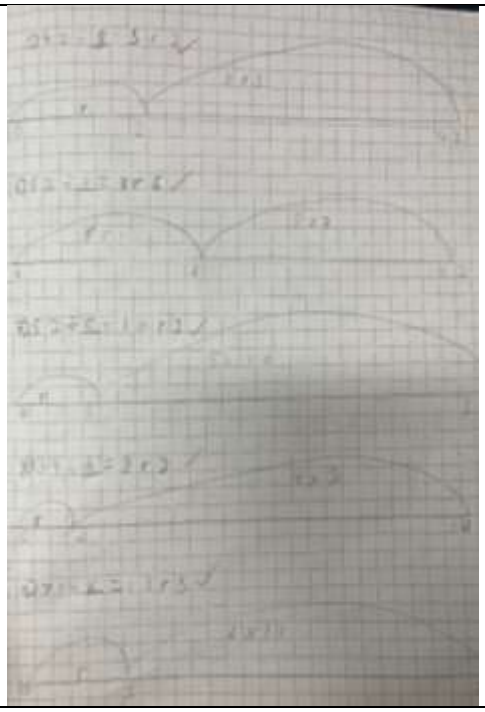
- Participation in and leadership of NCETM mastery workgroups and wider impact of this for other staff members and maths teaching across the school.
- Importance of our 'keep up not catch up' pedagogical approach.
- Outcomes across the school.

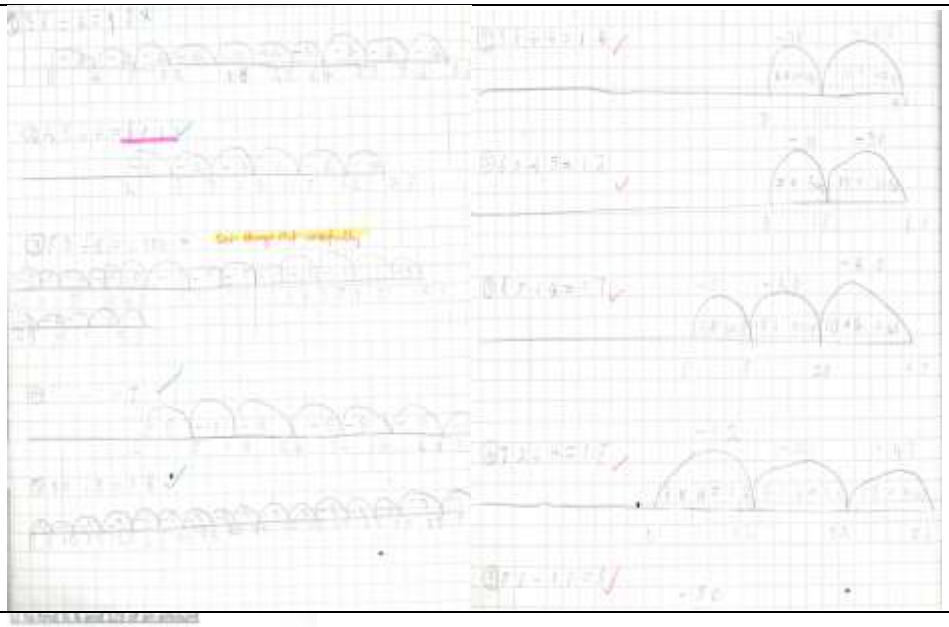
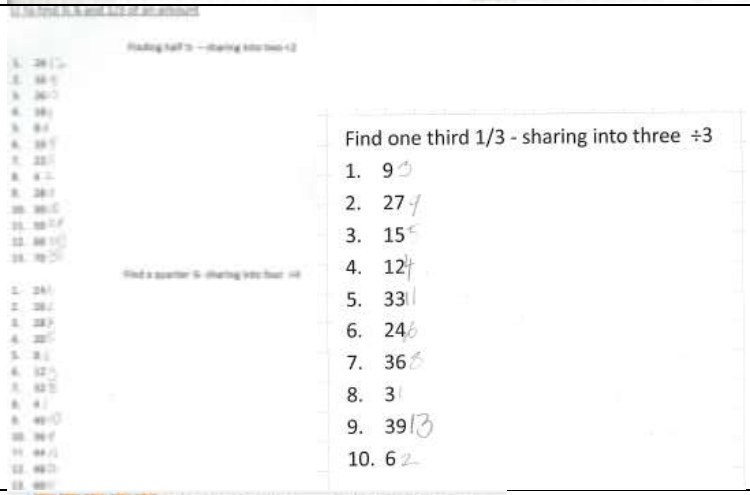
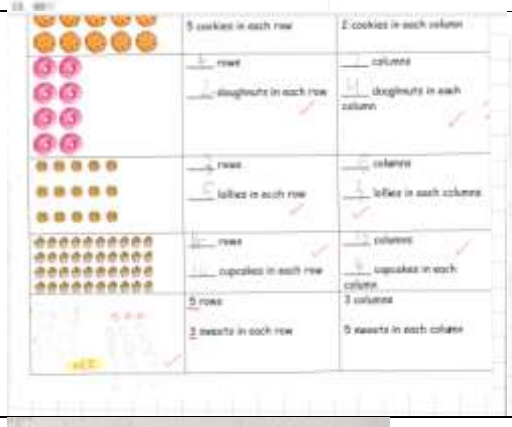
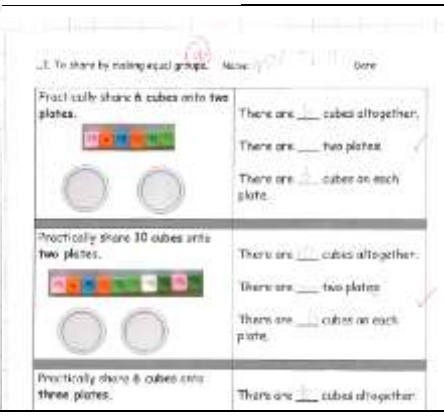
PD Lead – Local leader of mathematics education

MATHS HUBS – Working for 2025/26 – LONDON CENTRAL AND NW

Work sampling 2024/25

*The pieces of work shown here show a progression of division knowledge and skills from Reception to Year 6. Please see previous curriculum reports for progressions in place value, addition and multiplication.

Year 6 *Long division	
Year 5 *Short division	
Year 4 *Chunking on a number line with a remainder *Vertical expanded chunking	

Year 3 *Repeated subtraction *Chunking on a number line (no remainder)	
Year 2 *Dividing by known times tables (linked to fractions of amounts)	 Find one third 1/3 - sharing into three ÷3 1. 9 2. 27 3. 15 4. 12 5. 33 6. 24 7. 36 8. 3 9. 39 10. 6
Year 1 *Arrays *Sharing to make equal groups	  Practically share 6 cubes onto two plates. There are ___ cubes altogether. There are ___ two plates. There are ___ cubes on each plate. Practically share 10 cubes onto two plates. There are ___ cubes altogether. There are ___ two plates. There are ___ cubes on each plate. Practically share 6 cubes onto three plates. There are ___ cubes altogether.
Reception *Halves