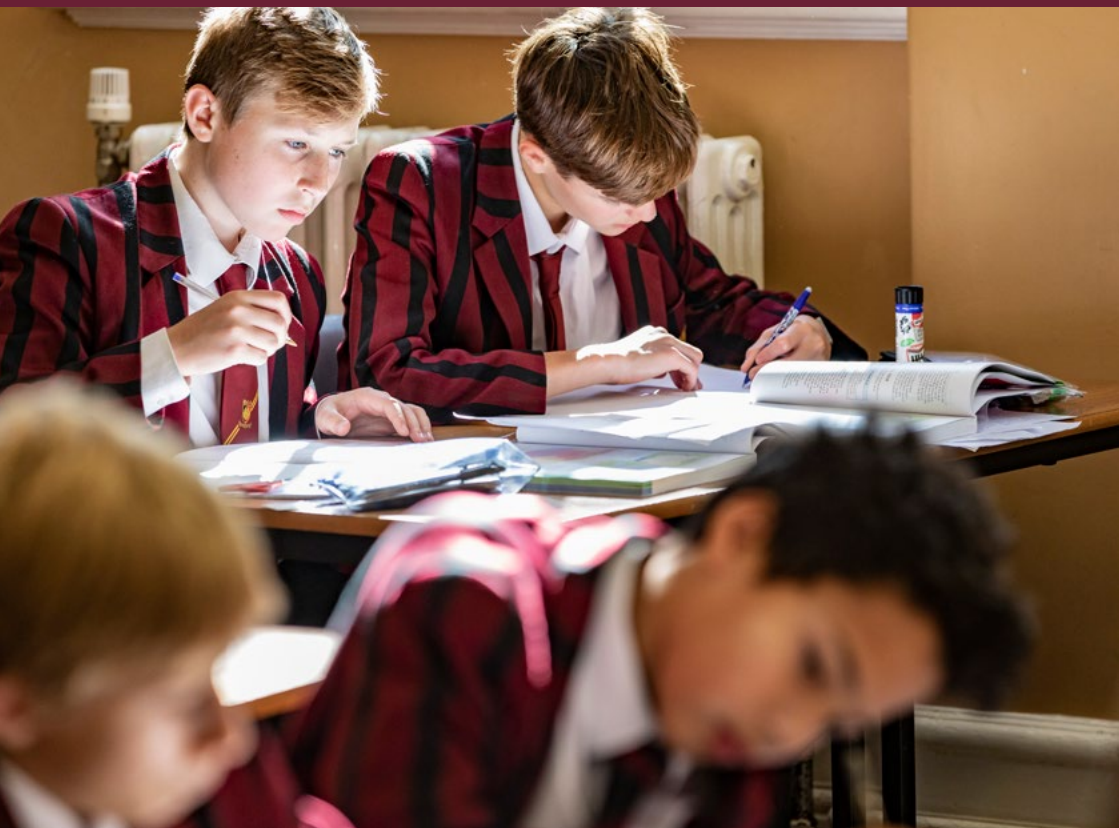
UCS HAMPSTEAD

UCS TEACHING AND LEARNING REVIEW

2022–23



It is with great pleasure that we present the Teaching and Learning Review for the academic year 2022–2023. This comprehensive report highlights the outstanding work of our talented teaching community over the past year.

A key focus has been the implementation of our metacognition and cognitive load initiatives. As outlined in the review, thoughtful strategies to support pupils' thinking and reduce unnecessary strain on working memory were evident across many lessons. Alongside this, the UCS Teacher Toolkit continues to be widely and effectively utilised, creating a cohesive approach to pedagogy.

Our Pupil Shadowing program and surveys provide valuable insights into the pupil experience. It is wonderful to see strong evidence of academic engagement, motivation and school connectedness from pupils across all year groups. Feedback on teaching was overwhelmingly positive, reinforcing the skill and dedication of UCS staff.

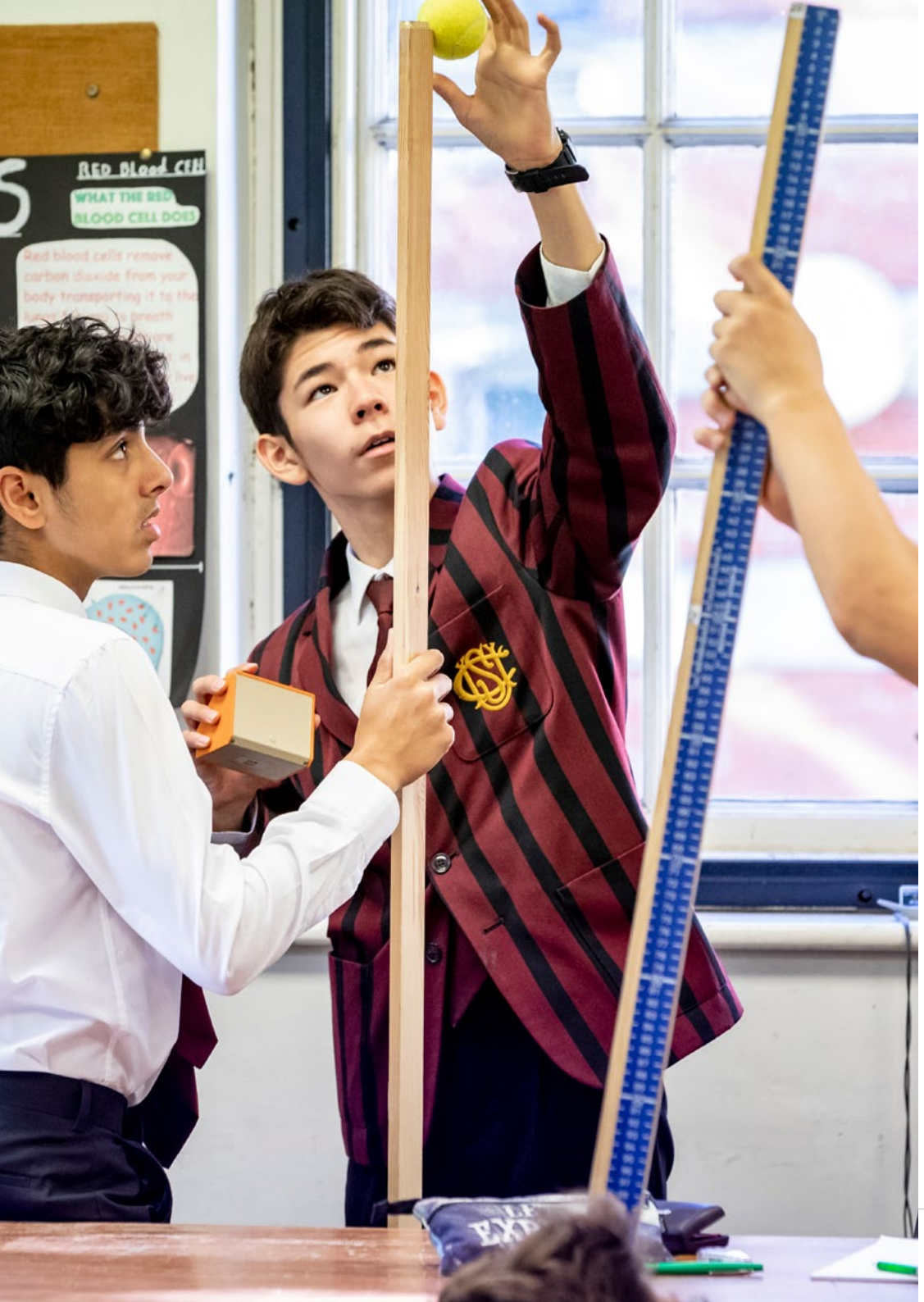
We are committed to continually enhancing our practice. This year's research on approaches to homework, led by Adriane Martini, has helped to inform planning and policy. Additionally, our ECT induction and PDP initiatives also showcase the deep professional learning culture among staff.

This year we have also started the expansion of our AI integration, guided by critical evaluation and a solutions-focused approach. Our stance embraces innovation while upholding academic integrity, and we look forward to delving deeper into the opportunities that can be harnessed through the use of AI.

Overall, the review depicts a school community actively striving to provide rich, meaningful and future-focused learning. The year has seen tremendous progress, and we look forward to continuing our unwavering commitment to teaching and learning excellence at UCS.

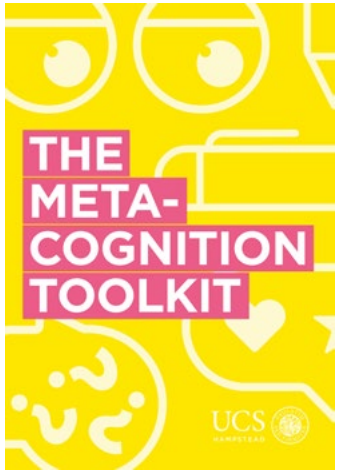
Patrick Milton
Director of Teaching and Learning (Pupils)

Katie Matthews
Director of Teaching and Learning (Staff)



Teaching and Learning Priorities: Metacognition and Cognitive Load Theory

Promoting metacognition and managing cognitive load have been our two key Teaching and Learning priorities in enhancing pupil learning this year. Metacognition involves thinking about one's own thinking and learning processes. In lessons, metacognitive strategies like self-questioning, reflection, and self-assessment can be used to help pupils become more aware of how they learn best. To support pupils in enhancing their metacognitive skills we introduced The Metacognition Toolkit this year, which sits alongside The Revision Toolkit and The Focus Toolkit.



Cognitive load theory focuses on optimising the mental effort required during learning. Teachers can reduce extraneous load through strategies like segmenting content, eliminating redundant information, and using dual coding. Managing intrinsic load involves balancing challenge and prior knowledge when introducing new ideas.

By attending to both metacognition and cognitive load, lessons can be crafted to maximise pupil understanding, engagement, and achievement. The aim is to develop independent, self-directed learners with the study skills to thrive academically.

The accounts that follow highlight the approaches that some of the individual departments have adopted to enhance their practice based on the principles of metacognition and cognitive load theory.

Metacognition

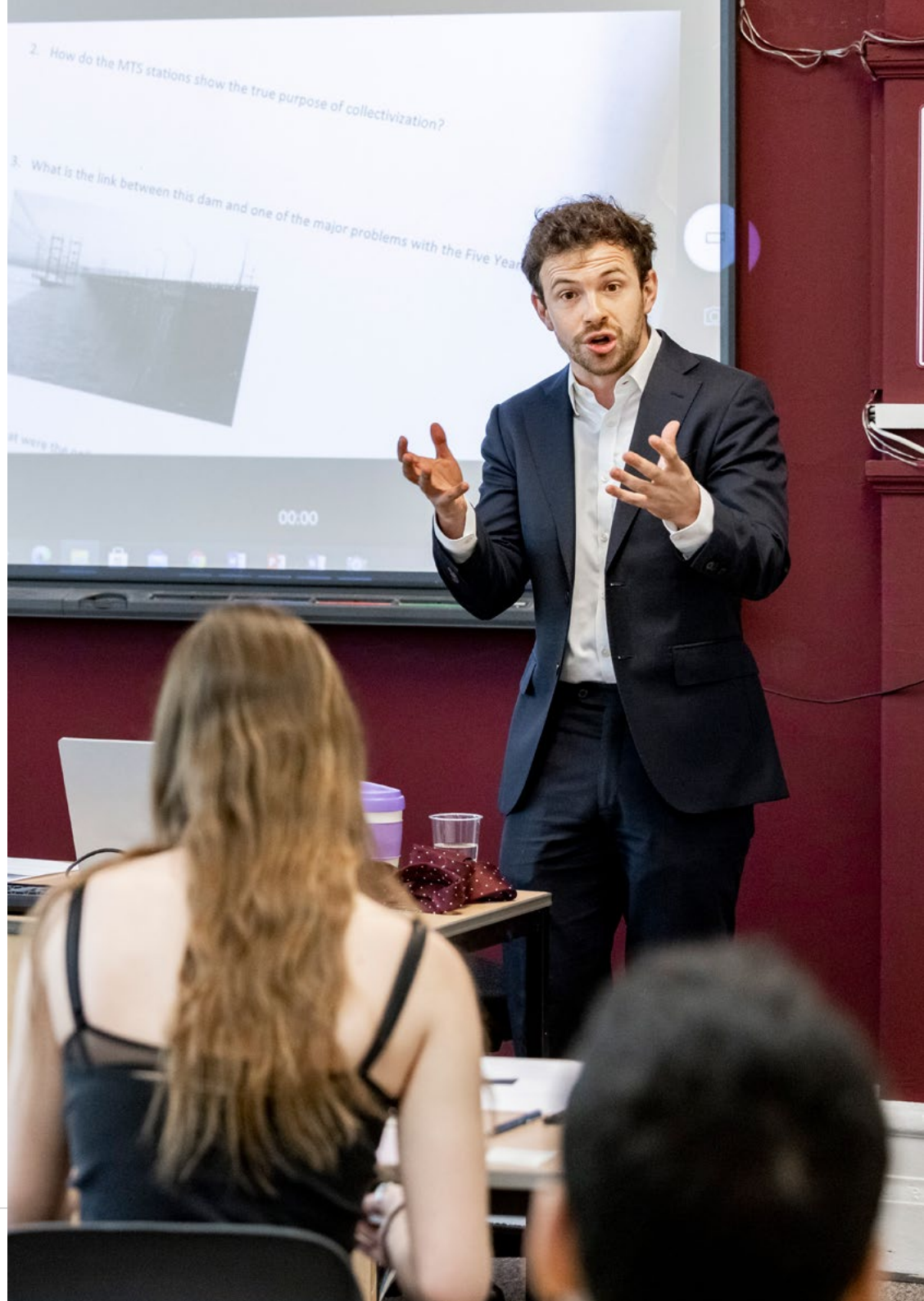
Art – For GCSE and A-level Art the courses are structured allowing opportunities for constant review and refinement, and here teachers help pupils break down thinking into visual steps. The Art sketchbook forms

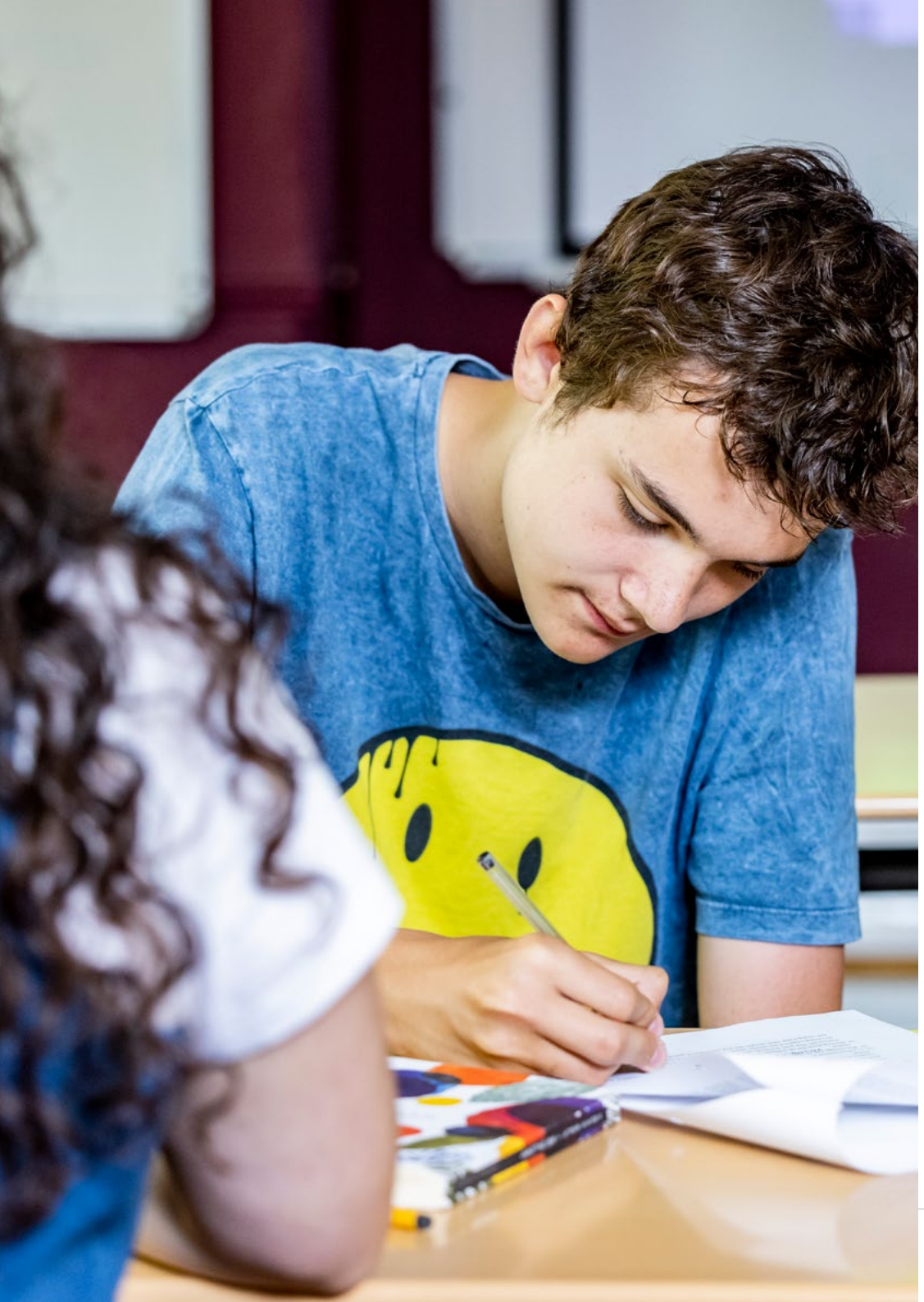
a visual diary where pupils consolidate learning and refer back to then build upon it. As the courses are linear, pupils are adept at recalling information through arching back on their visual journey and using this to take their projects forward. In the Lower School, pupils refer to teacher feedback and visual demonstrations are used to assist pupils with making improvements to their outcomes. In all year groups the projects loosely follow Peyton's 4-step approach 'Demonstration, Deconstruction, Comprehension and Execution.'

Biology – We have thought a lot about metacognition in Biology and have implemented some new ideas that have arisen from discussions during our weekly departmental meetings. This includes the development of centralised evaluation logs in the form of Google Sheets, where pupils track their progress in topic tests throughout the GCSE and A-level courses. We have also implemented a new way of encouraging pupils to analyse their performance in tests and think carefully about the reasons for them losing marks – this is the 'MARKS' method taken from Paul Spenceley's work on formative assessment.

Psychology – We are fortunate in that we can weave metacognition neatly into the study of the brain and how we process information. This works especially well when covering topics such as Memory, Social Influence, and the Cognitive Approach. This year, we have taken the opportunity to incorporate deliberate metacognitive practice in lessons with the aid of the Metacognitive Toolkit. This has been especially helpful for reviewing homework assignments and assessments. We encourage pupils to use the metacognitive questions before starting a task, as this is the area they do not always think of. As a department, we have noticed that enhancing metacognitive skills has had a big impact on developing independence, self-awareness, and academic self-confidence in the pupils.

Computer Science – In Computer Science, there has been a focus on utilising metacognitive questions during lessons, particularly in teaching programming skills and problem-solving. Planning questions have proved valuable in guiding the pupils' approach to new programming problems, building upon their recently acquired skills. Paired programming has facilitated this process, creating an environment where pupils can engage in meaningful discussion, answering questions and exchanging ideas. As pupils tackle problems, they inevitably encounter errors and bugs. By encouraging pupils to ask themselves and each other questions, their ability to think through these issues has been enhanced, leading to more effective problem-solving. Furthermore, allowing pupils to choose which problems to solve, instead of assigning a specific problem to all pupils, promotes a sense of ownership of their work. This has encouraged them to be more resourceful and research strategies to





solve problems independently, developing their metacognition skills even more. In addition, in Computer Science as a whole, we have also promoted the use of self-evaluation forms after completing an assessment. After receiving feedback on their work, pupils complete a Google Doc through Google Classroom, evaluating their own learning and study habits. This enables pupils to identify their strengths, the skills they have acquired, and areas in which they need to improve. As a result, pupils have become more proactive and engaged in their learning throughout the course.

Cognitive Load Theory

Maths – In any Mathematics lesson, reducing cognitive overload is key to unlocking channels that allow pupils to process and learn new skills. To this end, several strategies are employed within Mathematics, broadly falling into three main categories:

1. Reducing split attention: Teachers naturally take information from a written problem and transform it into a new or existing diagram; pupils need not alternate attention from text to image or search for specific information in a block of text. When a diagram is not appropriate, teachers extract all key information from a wordy question and transcribe it onto the page/board in a condensed form.

2. Reducing redundancy: A common strategy employed is to speak less during worked examples, allowing pupils to focus on the maths in front of them; Silent teacher is a much-used method. Information that is not necessary for answering the current question might be removed from a diagram, particularly when working with lower sets, or first introducing a topic.

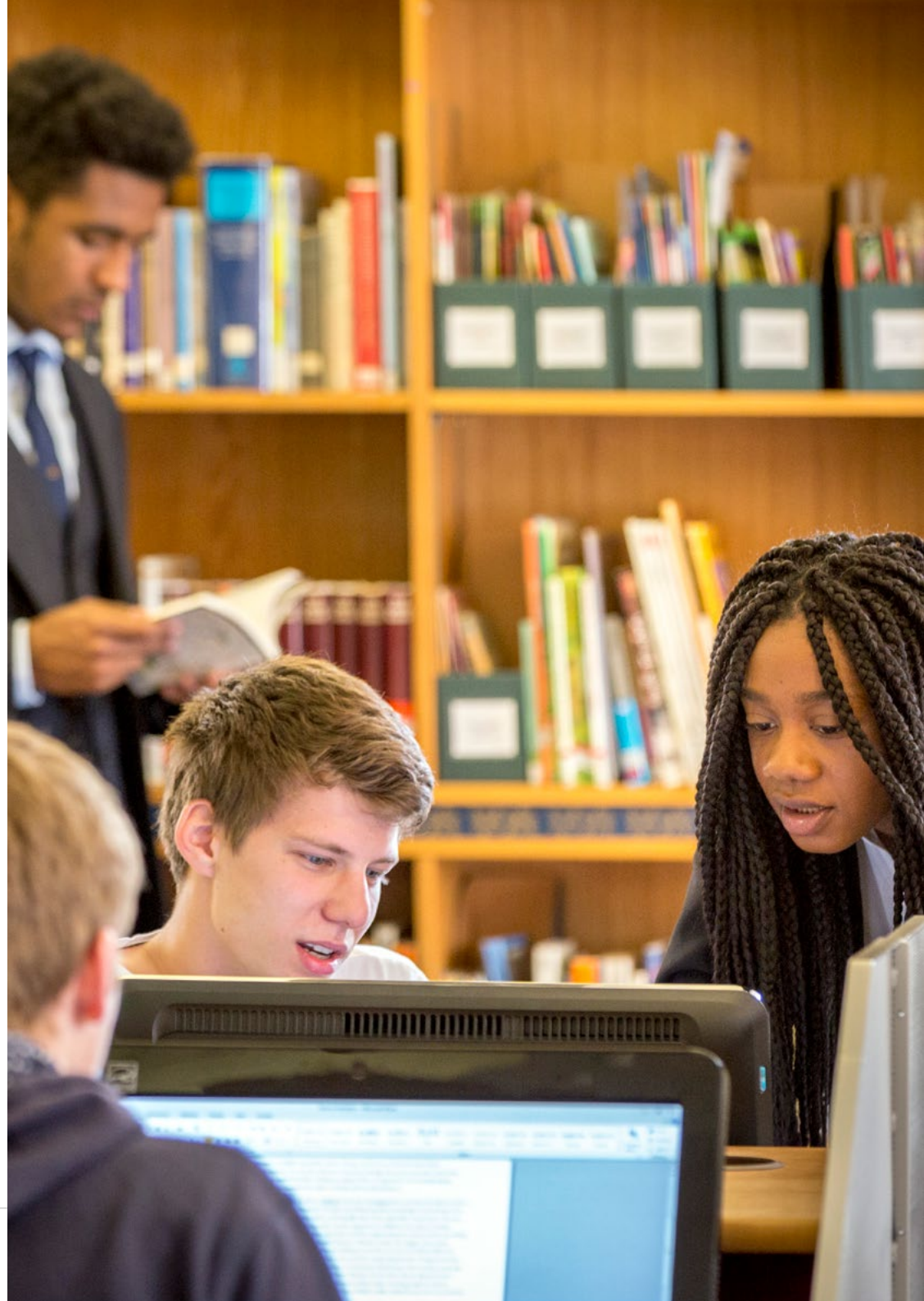
3. Reducing transience: Resources are posted on Google Classrooms which pupils can refer to in and out of the lesson after a slide is no longer displayed. Pupils also copy a worked example into their books, before attempting questions of their own, and special thought goes into what information is left on the board.

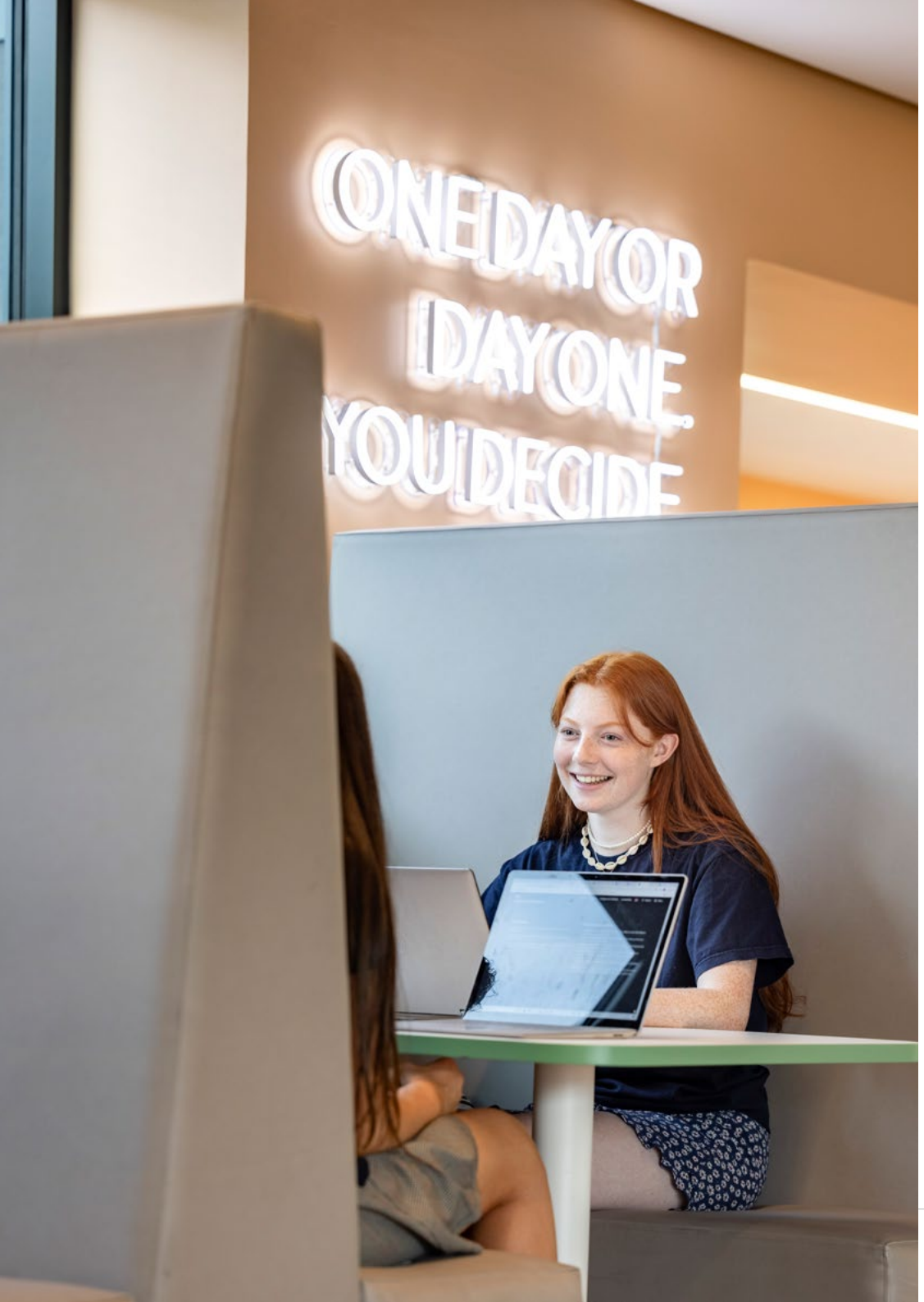
Design & Technology – In practical lessons, we have found that chunking instructions is one of the most effective methods to support pupils' understanding of executing complex tasks. By breaking down procedures into smaller, manageable steps, we reduce cognitive load, making it easier for pupils to follow instructions and grasp the underlying concepts. This approach enhances both comprehension and retention of information, enabling pupils to apply their knowledge effectively. Additionally, To encourage deeper thinking and promote active participation, we have implemented a think-time strategy after posing questions

to our pupils. Along with giving pupils more time to process answers to questions, we also give pupils the opportunity to reflect and refine their answers. By limiting the number of different tasks within a lesson, we provide pupils with the necessary cognitive space to delve deeper into the subject matter. This approach allows for greater reflection and application of knowledge, promoting a deeper understanding of the content covered. These, and many other unmentioned strategies collectively contribute to the promotion of neurodiversity and the success of all pupils in Design & Technology.

History of Art – A spring-cleaning of slides was received well by the pupils; we openly talk about memory and how it works, invest in acronyms and mnemonics, and all pupils recognise the value of interleaving sections of the two exam papers in short episodes across lessons. Teaching focuses on visuals rather than text-heavy slides, and worksheets have been devised to provide a framework for pupils to take individual notes during lessons.

Mandarin – We have found the most effective approach is highlighting links to knowledge that the pupils had already acquired. This is particularly true of translation tasks in which pupils often feel overwhelmed by the amount of Chinese characters they see all at once. Encouraging pupils to build on their existing knowledge and reassuring them of their capabilities, helps them to complete tasks whilst building their resilience. We have also moved away from including too much information on presentations and have created more straightforward materials, avoiding distracting items which are not necessary for pupils' learning, whilst keeping the academic rigour. This seems to have helped pupils maintain focus, especially those who are prone to distractions.





Pupil Shadowing 2023

Context

Pupil Shadowing is an annual Teaching and Learning initiative that takes place in the Spring and/or Summer terms. It consists of an interview between the member of staff and the pupil, and observation of all lessons with the pupil, including form times and assembly. In addition, staff review homework and the Google Classroom for the individual pupil and their exercise books. The initiative allows us to review and evaluate several aspects of our provision and to gather data that feeds into future T&L strategy. It also provides an opportunity for colleagues to be involved in a whole-school initiative.

Focus

Looking for evidence of our current Teaching and Learning priorities and a review of the pupils' experience of the school day.

1. Capturing best practices from lessons across the school

2. Reviewing the pupil experience in all year groups

3. Harnessing data for developing recent Teaching and Learning and Research priorities.

4. Evaluating the use of Google Classroom, devices in enhancing learning and homework

Feedback

1. Capturing best practices from lessons across the school

There is strong evidence from the observed lessons that the learning experience is incredibly positive for pupils. Lessons are highly structured with a broad variety of learning activities, teachers hold high expectations for all learners, and lesson content is pitched well in terms of pace and challenge. Pupils are engaged, enthusiastic and motivated in lessons. Teachers manage behaviour well, and robust routines are in place to ensure lessons are productive and efficient. Observers also commented on the high quality of resources used in lessons and posted on Google Classroom.

The use of retrieval practice and low-stakes testing continue to be hallmarks of UCS lessons. Questioning, through the use of cold-calling, and checking for understanding is also frequently used effectively to ensure rapid progress.

Creativity was cited more frequently in this review than in previous years, which has worked well to ensure pupils maintain focus and enjoy lessons. There also seems to be an increase in the amount of peer-to-peer activities in lessons, as well as the use of concrete examples and live modelling.

2. Reviewing the pupil experience in all year groups

The relationships between pupils and teachers were frequently referred to as a positive feature. Pupils actively participate in lessons and are not afraid to ask for help or take risks on challenging material.
For pupils with SEND, adjustments are implemented as stipulated on their LSP and strategies are employed sensitively and unobtrusively.

For the question 'How does the pupil rate the difficulty/challenge of the work at UCS?', there was a sliding scale – 1 being too easy and 5 being too difficult; all pupil answers to this were between 3 and 4, with the majority being the former. Pupils were generally positive about the quantity and quality of homework activities and valued the importance of independent study for consolidating the content covered in class.

3. Harnessing data for developing recent Teaching and Learning and Research priorities

Teaching & Learning Priority 1: Metacognition

Metacognition is neatly embedded in the majority of observed lessons. This is largely through questioning, scaffolded metacognitive resources, self-assessment with mark schemes, and dedicated reflection time. A few observers noted a "talk aloud" technique being employed to ensure pupils were acutely aware of their cognitive processes when completing tasks. Peer-to-peer activities were used in some lessons to good effect to help discussion of pitfalls, common mistakes and strategies to approach learning tasks. Some revision activities involved traffic lighting of topic lists and individual target setting leading to a highly personalised experience for the pupils.

Teaching & Learning Priority 2: Cognitive Load

Deliberate reduction of extraneous cognitive load was demonstrated in the majority of the observed lessons. This was most commonly achieved through the reduction of clutter and redundant information on slides and resources, the use of dual coding (teacher talk with visuals), and the activation of prior knowledge. Some observers also noted the use of subject glossaries, silence during tasks, chunked learning episodes, colour-coded instructions, gesturing (thumbs up) and well-established routines as strategies to optimise intrinsic cognitive load. Overall, teachers are utilising the principles of cognitive load theory well in the planning and delivery of their lessons.

UCS Teacher Toolkit

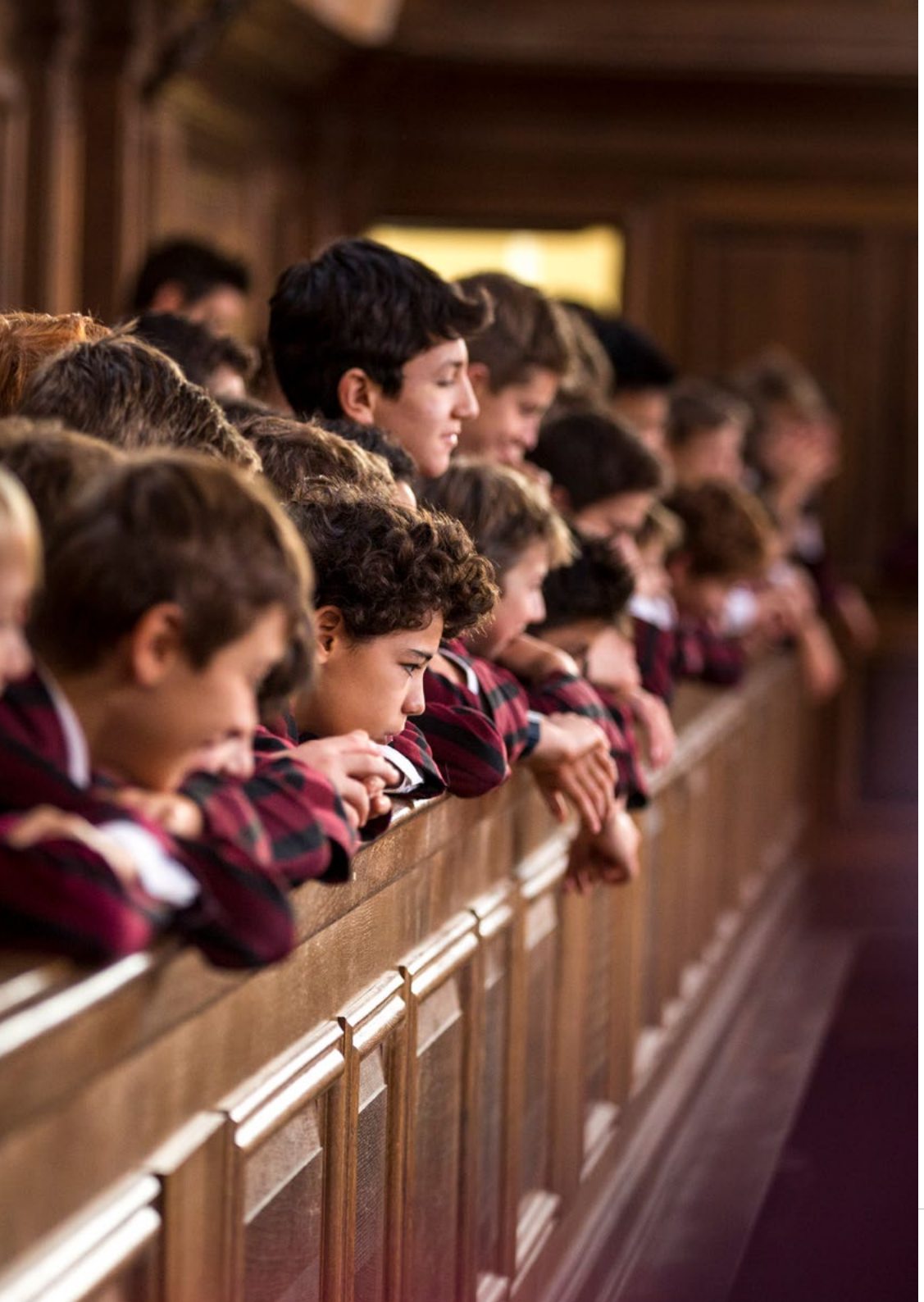
The following Teacher Toolkit strategies were used most effectively in lessons – Activities using Retrieval practice (58%, previously 42%), Cold calling (50%, previously 46%), Think time (38%) Live modelling (38%, previously 33%), Feedback (43%, previously 33%), Scaffolding (23%, previously 25%), and Elaboration (33%, previously 25%).
There was good coverage of Teacher Toolkit strategies across all the observed lessons, with some of the strategies utilised more than others. Effective use of questioning (including cold calling), retrieval practice, think time, modelling and scaffolding were frequently noted as areas of excellence. There were a few notable observations of creativity and elaboration strategies to engage and motivate pupils. Feedback, both verbal and written, was referred to by some observers as outstanding features.

4. Evaluating the use of Google Classroom, devices in enhancing learning and homework

1:1 devices were used in 50% of the lessons observed. Whilst this is 20% lower than the figure reported in the 2022 Pupil Shadowing report, in cases where devices were not used in the observed lesson, observers reported that device use was evident as part of the pupil learning experience, demonstrating that teachers are pragmatic about when to use devices to support pupil learning. Devices were predominantly used for note-taking in lessons, including completing digital worksheets/exercise books set up by teachers on Google Classroom. Observers noted it was also commonplace for teachers to use devices to display resources, distribute reading material (digital textbooks) and encourage research activities. Some teachers also used devices to deliver online quizzes or to access online resources (e.g. Dr. Frost/Quizlet). It was noted by many of the observers that the pupils needed few or no instructions regarding how to use their devices, demonstrating a high level of 'tech competence' and automaticity in their work.

The majority of pupils report storing their notes on Google Drive/Classroom, and where Google Drive is being used, folders are mostly organised and labelled by topic/subject. Older pupils naturally have more independence over their notes and some have opted to keep notes entirely on paper or on third-party apps (e.g. Notion). A small number of younger pupils have had difficulty negotiating a hybrid of paper and electronic notes; this issue seems to be resolved when teachers have implemented digital exercise books (e.g. in Geography, English, History and Drama).

Pupils are in the habit of checking their emails frequently, with 90% checking at least daily and 53% checking more than twice a day. Pupils are very good at managing their emails, with 73% reporting their confidence level at 4 or 5 out of 5. There is also strong evidence from observations and pupil self-report that they are competent and confident at managing Google Classroom with over 90% reporting their confidence level at 4 or 5 out of 5.



Pupil and Staff Survey 2023

Alongside the Pupil Shadowing initiative, we conduct a survey which is sent out to all staff and pupils to gather additional information across the whole school, which is used for strategic planning of Teaching and Learning.

Staff Survey

The Teaching and Learning Staff survey yielded 88 responses and thus represents an accurate snapshot of the staff body.

Most teachers report using the techniques from the UCS Teacher Toolkit either frequently or often. The most commonly used techniques include Practice Recall (82%), Cold Calling (77%) and Think Time (69%). Additionally, a very high number of colleagues show strong confidence in the use of the Google Suite as well as locating SEND and EAL information about pupils.

When asked about areas for further development and training very few trends emerged. That said, a small handful of teachers requested further training related to feedback, assessment and homework which links to the findings of APM's Homework Review and the possibility of providing specific training to staff next year. Revisiting the concept of creativity was mentioned by some teachers as an area for further training. Also, a small number of teachers mentioned further training included the use of the Google Suite for education and technology (including AI). Some teachers mentioned that it would be valuable to have the UCS Teacher Toolkit as a separate document with guidance on how to implement strategies.

Pupil Survey

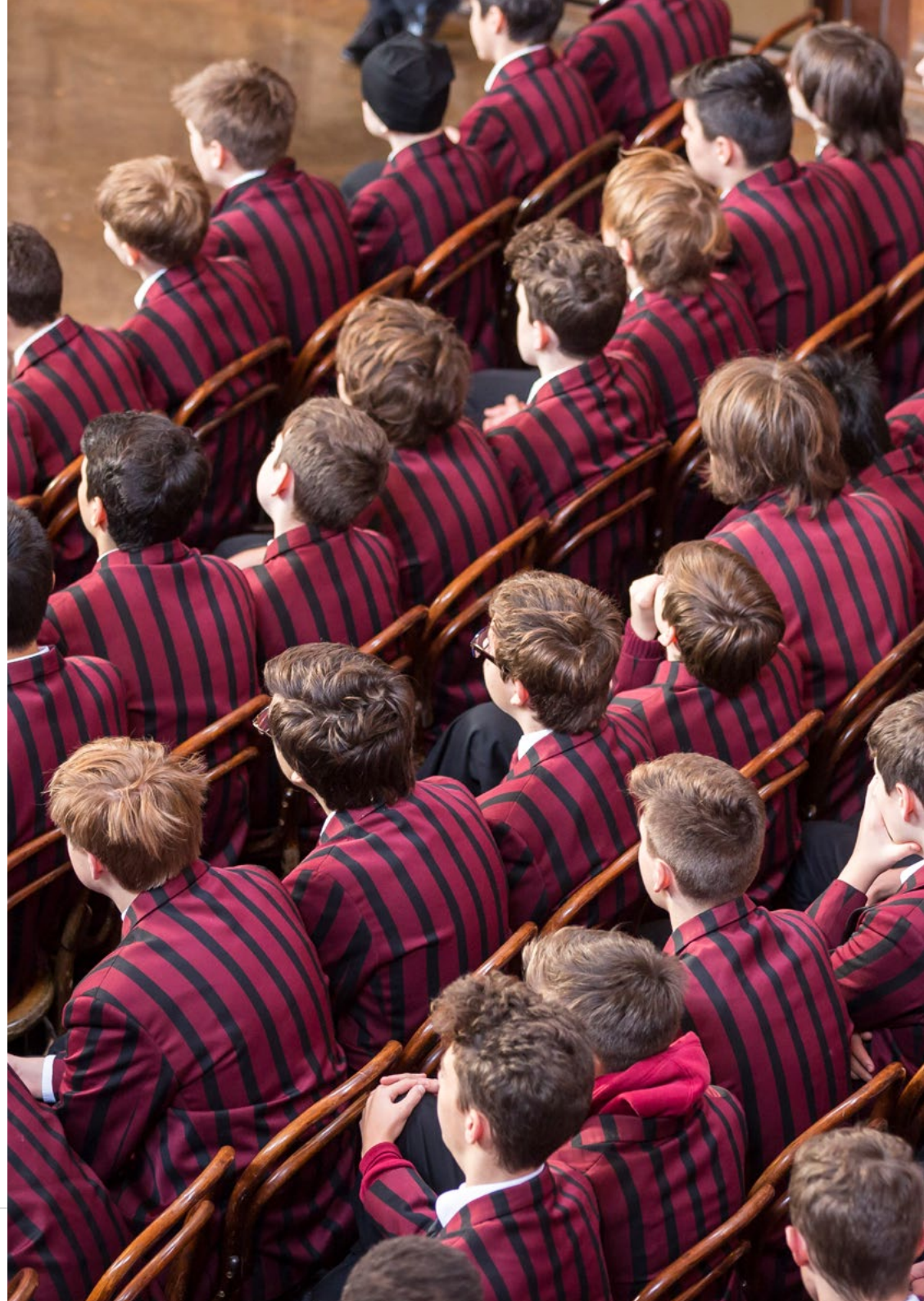
448 pupils responded to the pupil Teaching and Learning survey, with a fairly equal spread across all sections of the school. Upper Remove and Sixth pupils were least represented, which is unsurprising given the timing and study leave.

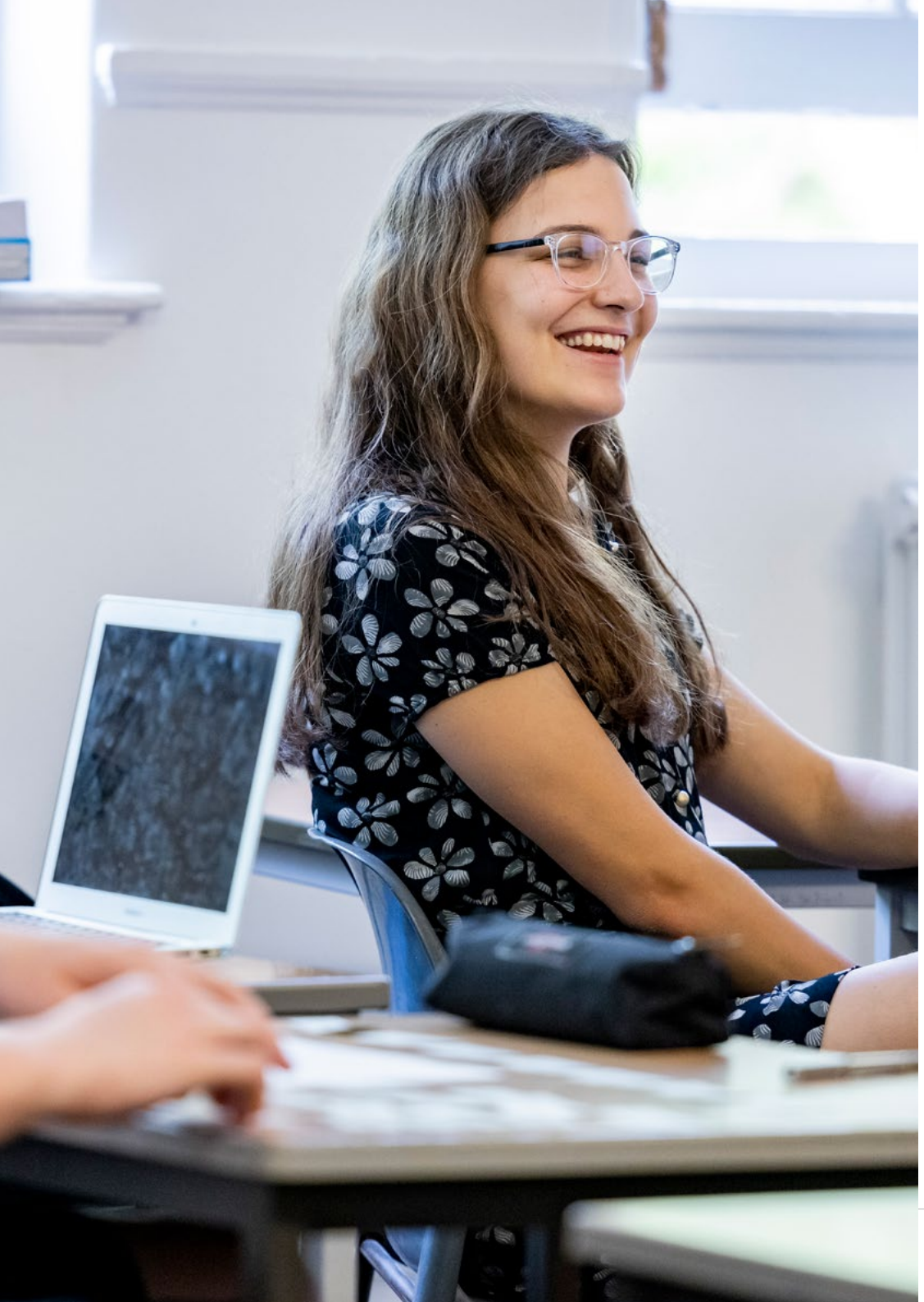
The data demonstrates that the study skills resources are well used by the pupil body. Over half the pupils reported the Revision Toolkit was either helpful or very helpful, 117 reported the Focus Toolkit was either helpful or very helpful and 72 reported the

metacognition toolkit was either very helpful or helpful. Similarly, a large number of pupils reported that the Study Smart website and/or Study Smart sessions were either helpful or very helpful.

Pupils have reported strong IT skills with almost all pupils stating they are confident in managing their emails, Google Drive and Google Classroom. That being said, 51% of respondents reported not being confident in using Google Calendar, so this could signpost more work required to support pupils with the Google Suite.

Pupils were asked what they liked best about studying at UCS. Content analysis of the responses was conducted to identify trends. The most significant trend to emerge was the **quality of the teaching**. Pupils find the teaching fun and engaging and report favourably on their relationships with the teachers. Pupils report that they enjoy lessons and that teachers are helpful and kind, and that academic pressure and stress are limited. The **facilities** are another feature of what pupils like about studying at UCS, most notably the AKO Centre, pupils find that it is an excellent place to study and value the wealth of resources available to them. The **breadth of study** also featured as a positive trend from the pupil responses, including the variety of academic, creative and co-curricular options available.





Research: The UCS Homework Review – Adriane Martini

Homework seems to be an inescapable reality of formal education; one that is ever present regardless of the country, age group and subject taught. A possible explanation is that teachers believe homework is an integral part of the process of learning and, since they are the agents that shape day-to-day education, homework will almost always be included in the learning of a given topic. A report from the Organisation for Economic Cooperation and Development (OECD) analysed the time pupils[1] spent on homework in 64 countries across the world. Despite regional differences, all countries reported using homework, with the average being just under 300 minutes per week (OECD, 2013). In another study, Moorhouse (2021) found that 90% of English teachers believed homework to be necessary for learners to progress and "78% of respondents believe homework to be as important as classwork." (p. 302). Furthermore, 96% of teachers believed homework had a positive influence on learning (Moorhouse, 2021) despite the lack of evidence to support this claim (Hallam & Rogers, 2018; Vatterott, 2009). Research on the effectiveness of homework is challenging due to the complex nature of classroom teaching and the numerous variables involved.

Previous studies focusing on isolated factors such as quantity and frequency have failed to determine the best uses of homework for enhancing learning (Cooper et al., 2006; EEF, 2021; Hallam & Rogers, 2018; Vatterott, 2009).

A holistic approach that considers how teachers plan, design, assign, and provide feedback on homework tasks may offer valuable insights into the broader learning process. Understanding homework in the context of other learning episodes could lead to improved quality and alignment with research on teachers' knowledge and practices.

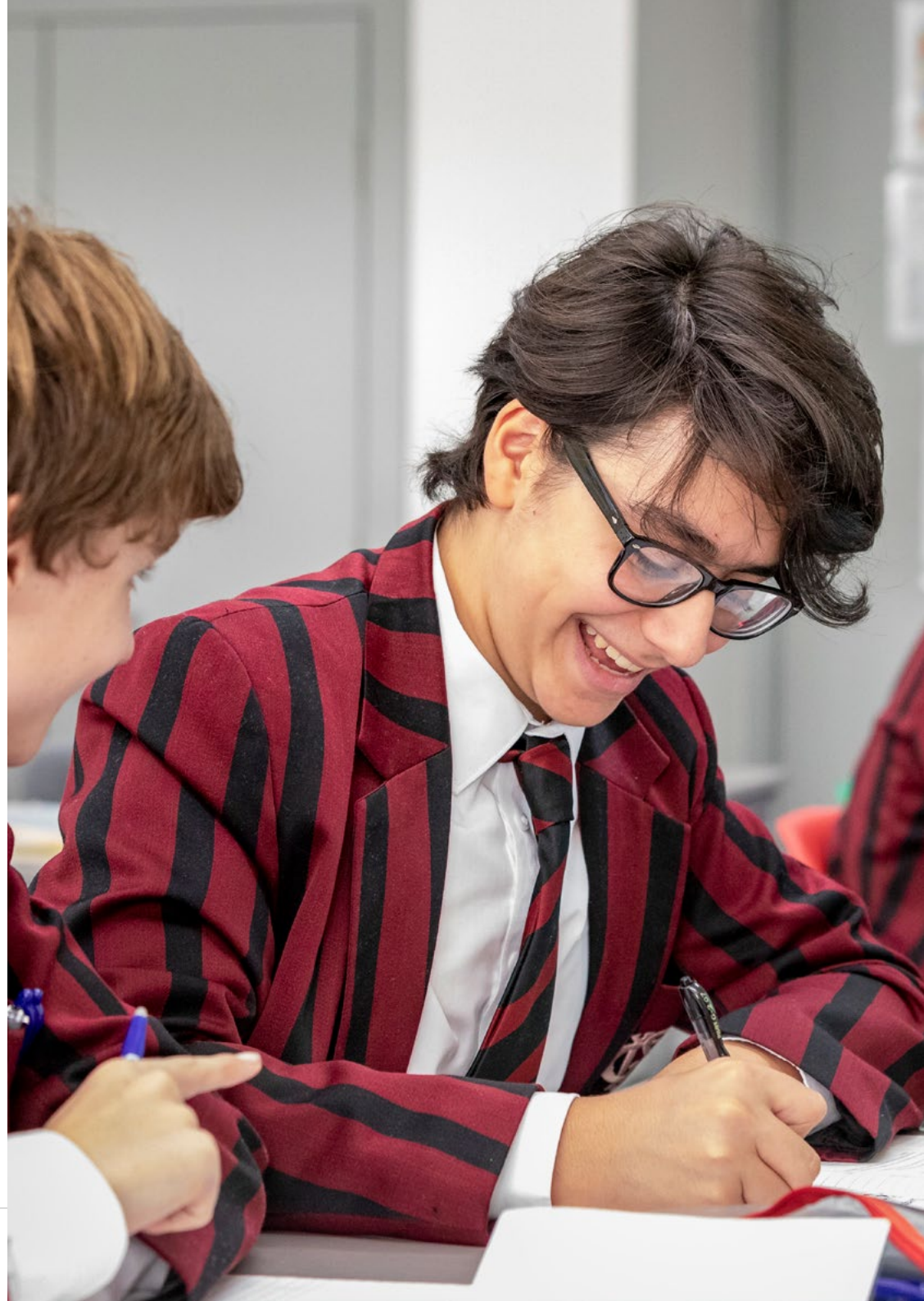
This research proposes an alternative approach to improving homework practices without relying on inconsistent findings from existing research on its impact. The suggestion is to study homework in a similar manner as other educational practices, using Shulman's (1986) content knowledge as a framework. Literature supports this proposition, with recommendations to design homework tasks linked to classroom learning and consider subject matter and

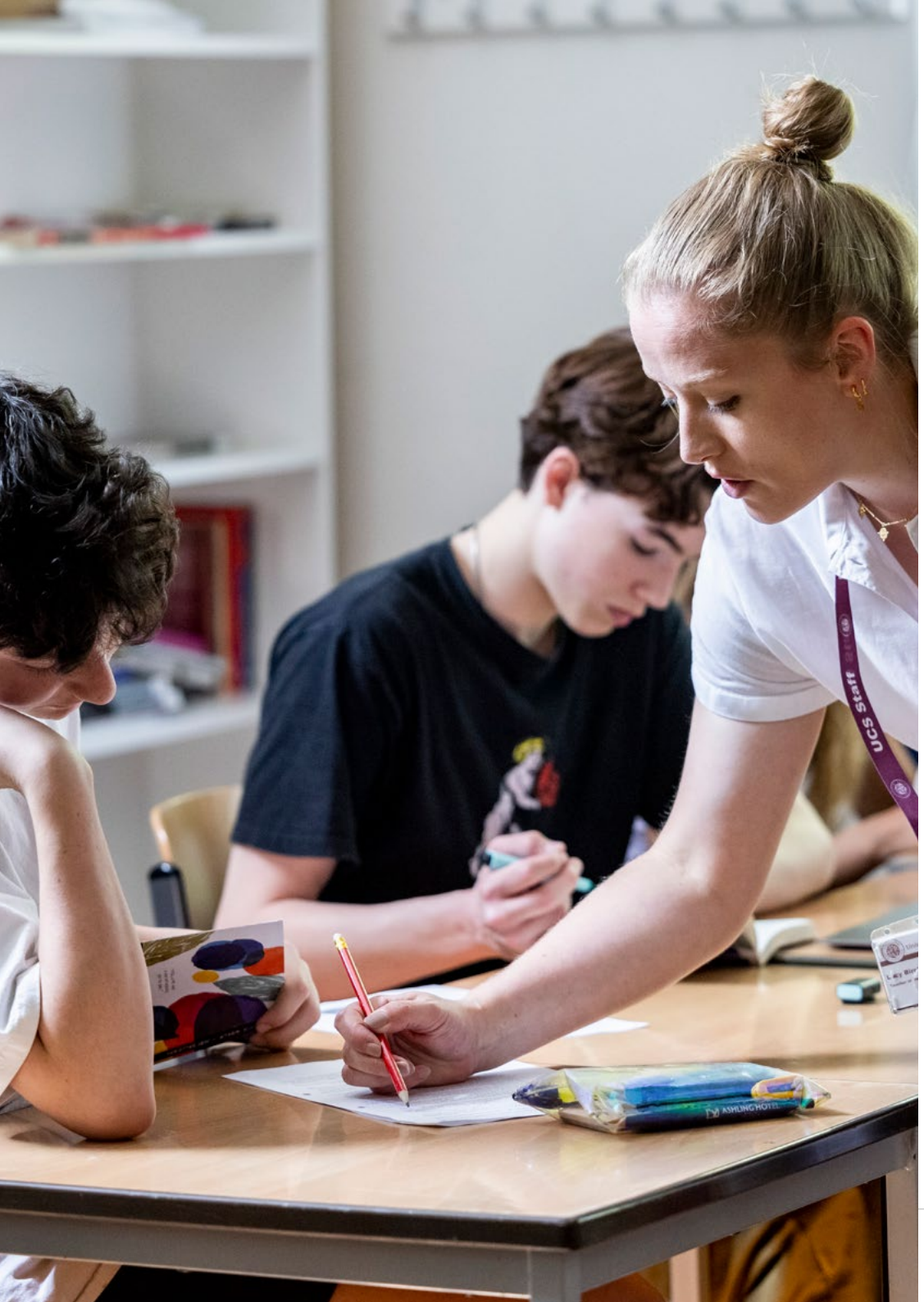
1. The sample follows PISA target population: pupils between 15 years 3 months and 16 years 2 months, enrolled in formal schooling for at least 6 years.

curriculum alignment. Teachers' own experiences and wisdom of practice are also deemed valuable sources of information. By examining teachers' subject matter content knowledge (SMCK), curriculum knowledge (CK), and pedagogical content knowledge (PCK) (Shulman, 1986, 1987), we may gain insights into what constitutes high-quality homework.

Broad recommendations from the investigation include:

- *Homework should be integrated into classroom work, planned with the same attention as other learning components, and be an integral part of the curriculum.*
- *Homework policies should be flexible, allowing teachers to design tasks based on pupil, subject, and curriculum needs.*
- *Apply effective learning techniques and theories, such as metacognition, selection of tasks, quality feedback, etc., to homework tasks with the same attention as in-class tasks.*
- *Establish routines for consistency and vary tasks to keep pupils motivated and engaged.*
- *Avoid setting purposeless homework and consider alternative tasks like reflection, wider reading, or rest.*
- *Lower School pupils benefit from homework that links to in-class learning, targets key skills, and sparks curiosity.*
- *Middle School and Sixth Form pupils benefit from homework connected to in-class learning, with a clear purpose and relevance to exams. They prefer fewer high-quality tasks with challenges and feedback.*
- *Teachers can use resources on subject matter content knowledge (SMCK), pedagogical content knowledge (PCK), and curriculum knowledge (CK) to enhance homework practices. These findings will be shared during upcoming CPD opportunities.*





Teacher Training – Sophie Bennett

We have been really pleased to work on the ECT Induction programme with 7 ECTs in the Senior School this year. ECTs are Early Careers Teachers who have just completed their Post Graduate Certificate of Education (PGCE) or acquired Qualified Teacher Status (QTS) through another Initial Teacher Training (ITT) route. Teachers are ECTs for two years following the extension of the Newly Qualified Teacher (NQT) induction a couple of years ago.

ECTs are fully embedded in the teaching and co-curricular life of the school, all acting as form tutors as well as fulfilling their subject roles. To support them through this induction period, there are several measures in place. Most importantly, each ECT has a subject-based mentor who meets with them weekly (in Year One) and fortnightly in (Year Two) to reflect on their progress, lesson observations and wider professional development. They collect evidence in relation to the Teaching Standards. This is also supplemented by the school's ECT programme which involves a session, delivered in-house by individual or paired UCS teachers, on each of the Teaching Standards spaced throughout the year. ECTs are also assigned qualified coaches outside of their department to afford them an extra person to chat with as they go through the process. ECTs attend all TeachMeets and meetings of Journal Club to ensure they are maximising their opportunities to engage in professional development and conversations around best practices.

The school's programme is overseen by ISTIP (The Independent Schools Teacher Induction Panel) which certifies our ECTs and reads their annual assessments. ISTIP also facilitates meetings of ECTs in the same subject to allow for conversations between colleagues at the same stage in the career.

In February 2023 we were visited by ISTIP so they could conduct a routine overview of the induction programme here at UCS. They were delighted with their findings, concluding that "University College School is running a highly effective programme of induction. The process is very well organised, personalised and based on the Early Career Framework." They also noted the support on offer for UCS ECTs and how reflective and engaged they are with the professional as well as career development here at the school.

Professional Development Portfolios (PDP)

Professional Development Portfolios, referred to as PDPs, represent an innovative, forward-looking, and non-hierarchical method for fostering the growth of our professional skills. Colleagues enjoy the independence to select their preferred subject or area of focus, choose a mentor, and determine how they wish to communicate their professional development within the PDP framework. The scope of PDP topics is expansive, encompassing various elements of teaching practice. In recent times, these topics have spanned from offering pastoral support and enhancing classroom teaching methodologies, to enriching co-curricular provisions. The following are a few illustrative examples of the PDPs pursued in the current year.

Best Practice through Lesson Observations

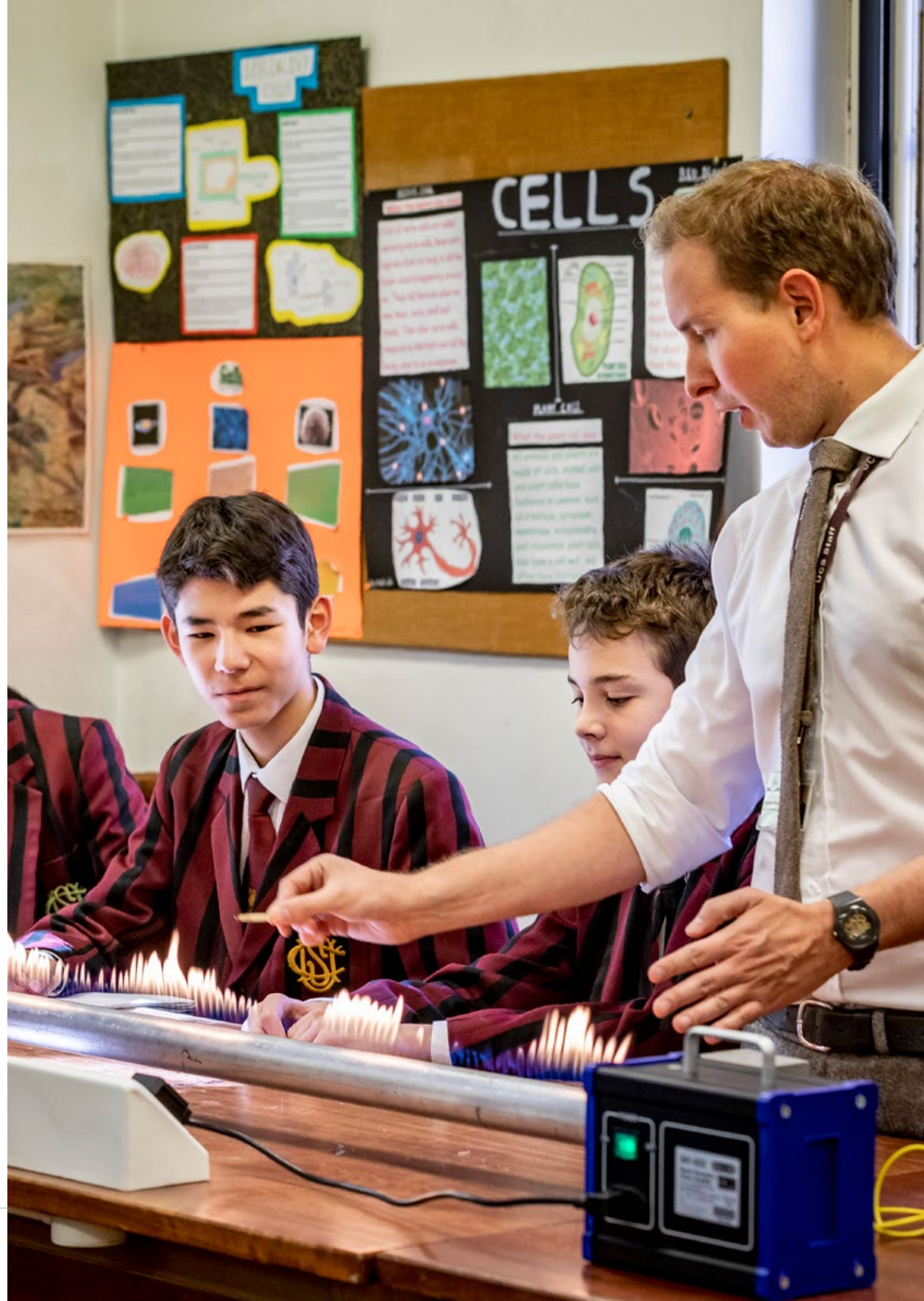
– Rebecca Potter

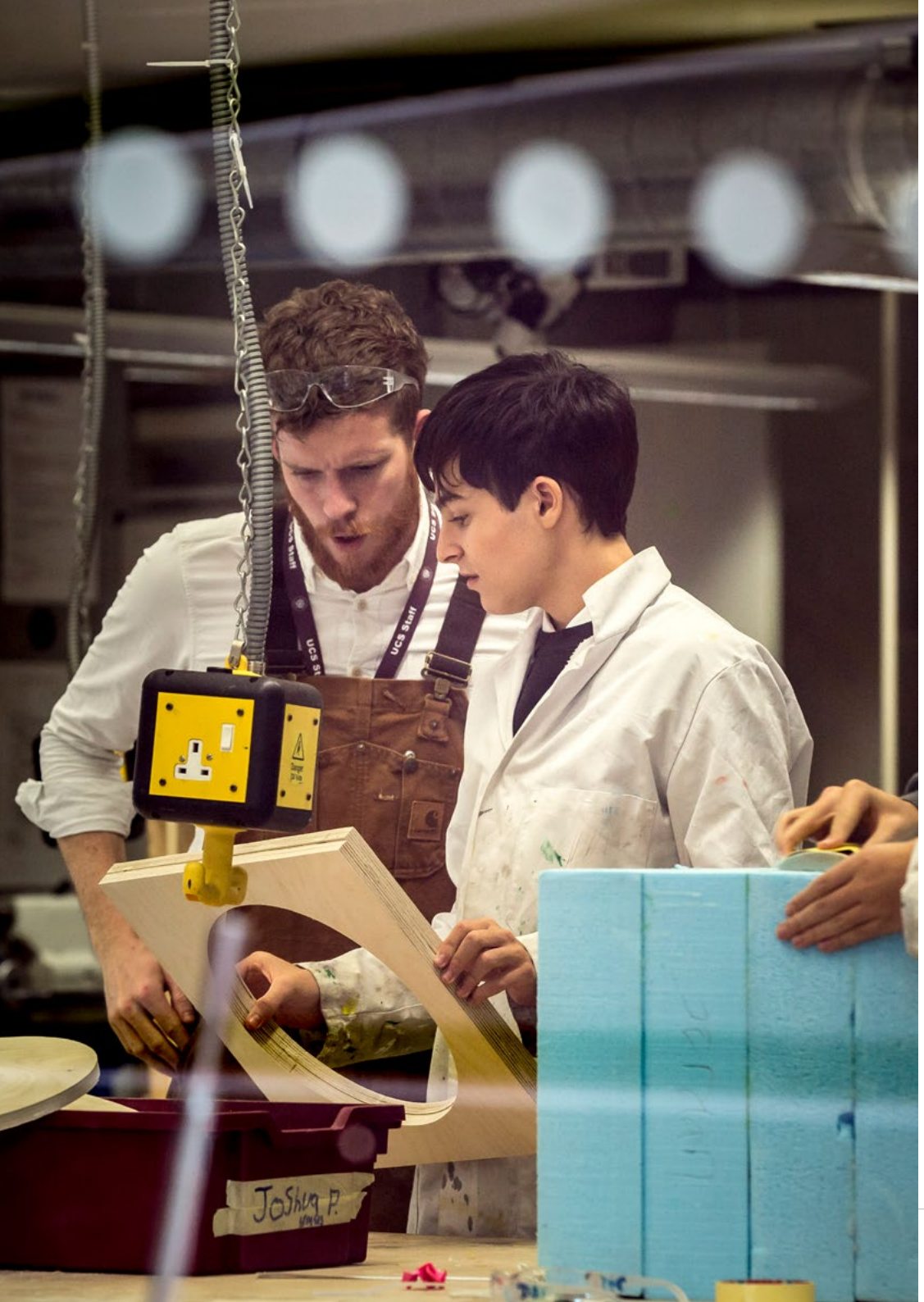
My approach to teaching is something that I regularly review and, as such, I make a conscious effort to observe other teachers both within and outside of my department. This year, I observed lessons in the following subject areas; Politics, Chemistry, Biology, Maths and Physics. The focus was teaching excellence and, unsurprisingly, I found a wealth of this at UCS. Whilst every teacher had their own style of teaching, the common features of these lessons were: an excellent teacher-pupil rapport, high expectations of both behaviour and participation, a high level of respect between peers, regular teacher feedback and clear routines embedded into each lesson. One particularly effective technique was asking pupils to analyse anonymised pieces of their peer's work and this is something I have implemented in my own teaching.

Independent Schools Qualification in Academic Management

– Joe Verran

As part of my PDP, I completed Level 1 of the Independent Schools Qualification in Academic Management, a course offered by HMC in collaboration with UCL/Institute of Education (IOE). This comprehensive program consists of four modules: enhancing learning through effective lesson observation and post-lesson dialogue, employing coaching methods and engaging in challenging conversations, establishing and improving standards in pupil assessment, marking, and feedback, and employment issues and employment law.





Throughout the course, I was assigned an experienced in-school mentor who provided regular guidance and support, enabling me to track my progress and focus on areas of development. Additionally, I compiled a portfolio documenting my reflections on implemented strategies and completed readings. By undertaking this course, I have significantly enhanced my capacity to lead an academic department. I highly recommend it to individuals contemplating this career path.

The Contribution of Whole School Cultures to Achievement
– Pete Edmunds

My PDP this year was investigating the role of whole school cultures on pupil attainment. As part of this, I visited another school and undertook a day of observations. I had a focus on the language that teachers used, and the independent learning habits of pupils. While replicating a culture is difficult in a different setting, there were aspects that I could take back into my day-to-day teaching. For example, on numerous occasions during my observations, I noted that pupils were encouraged to research their answers to their questions (as opposed to telling them the answer directly). Pupils were routinely asked questions like "If we were strong independent learners, where could we find this information?". This enabled pupils to practise their independent learning, while still having the follow-up support of the teacher if necessary.

The Development of Creative Writing Skills
– Courtney Sklar

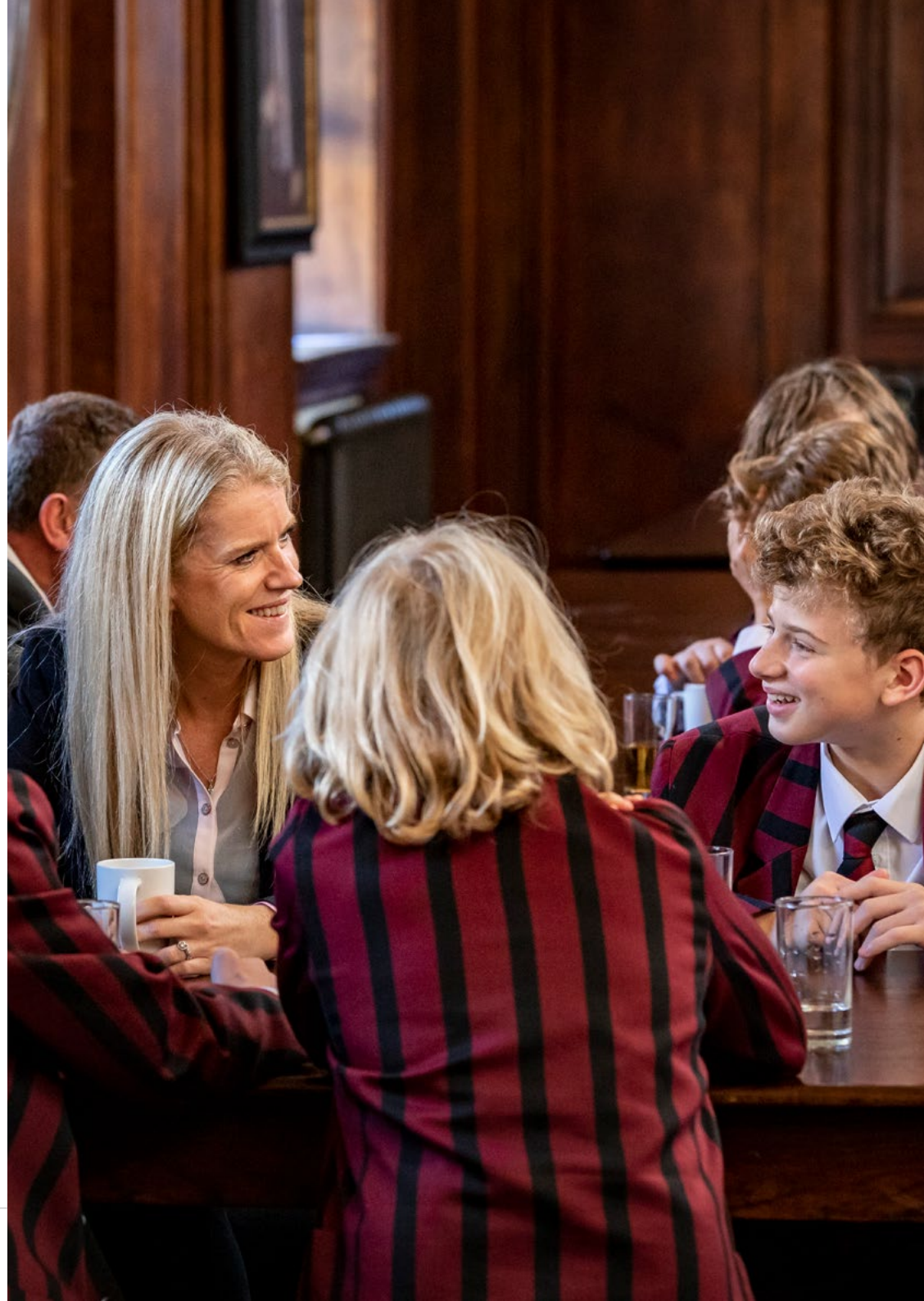
"...And then she died. But you would expect that to happen; she was ninety-six after all…" This is the final line of the first story I ever wrote and I've been writing, hopefully, more subtly, ever since. I became more serious about my own creative writing in 2021 and was accepted into the publisher Faber & Faber's Writing Academy. It is a daring and thrilling thing to put your work out in the world for people to read and the positive experience I had with my own writing group gave me the idea for setting up the Creative Writers' Café at UCS. I think the USP is that it is a truly safe and free creative writing space, which allows pupils freedom of expression coupled with tangible skills and techniques they can use to enhance their writing. I definitely will continue to run Creative Writers' Café next year and I am considering completing a Masters in Creative Writing to further grow my own skills and teaching of the topic.

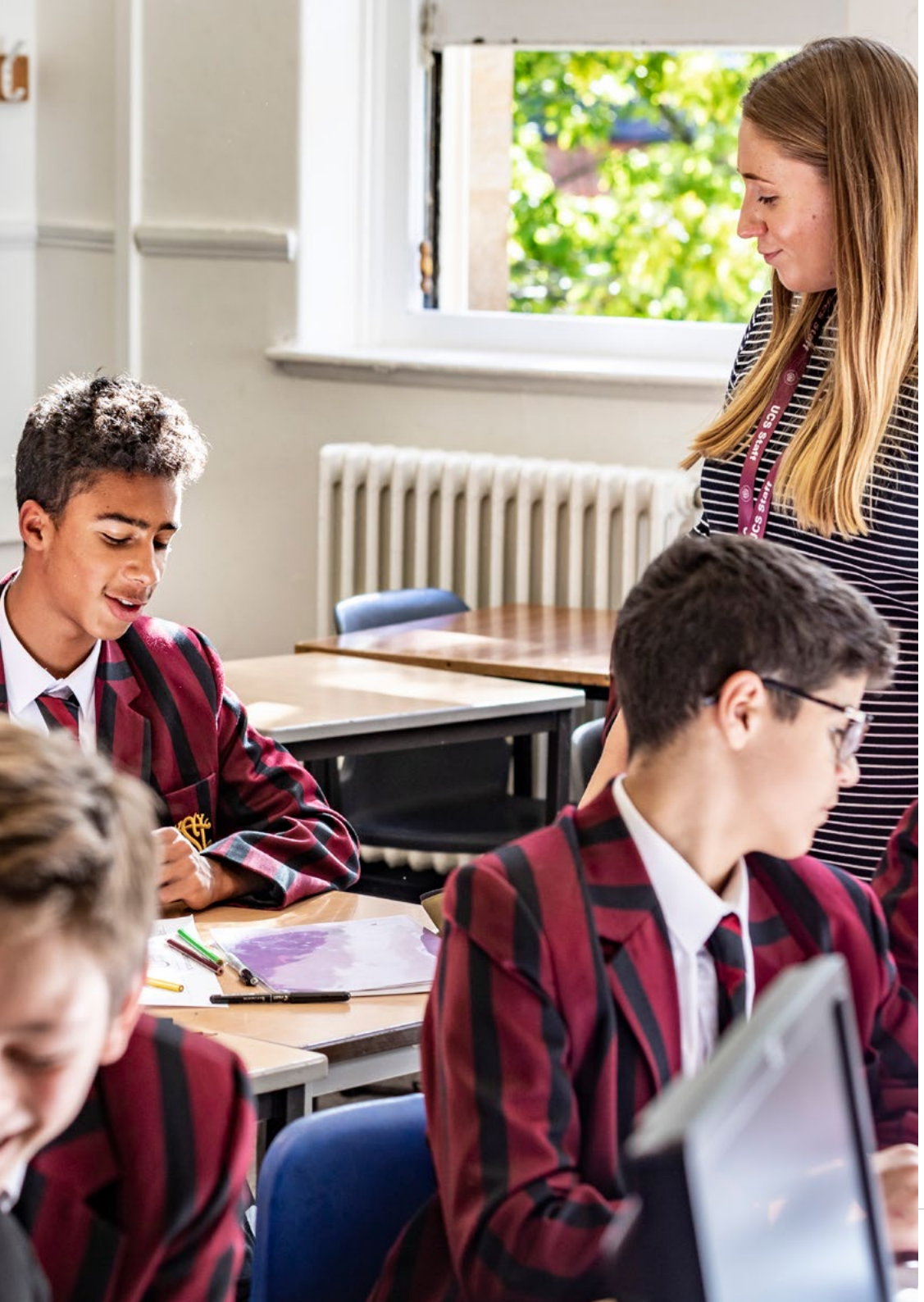
Professional Development – Higher Degrees

Every year UCS provides funding to support colleagues who wish to pursue further study to support their professional development. Whilst studying for a degree alongside the challenges of day-to-day teaching is an ambitious feat, those who have taken this on have found the experience a worthwhile and rewarding journey.

Keith Bugler – "I am currently in the second year of study for a Masters in Learning and Teaching from Oxford University. The way this is assessed is teachers complete two research projects over the two years. My first-year research looked at pupil motivation, while this year I am focusing on feedback strategies. With the rise of Google Classroom, teachers can now deliver typed feedback or record voice clips of up to five minutes using a plug-in called Mote for pupil homework tasks. My research is looking at how pupils respond differently to recorded verbal feedback via Mote compared to more traditional written or typed feedback."

Emilia Orlans – "I am studying for an Advanced Diploma in Educational Psychotherapy at *The Caspari Foundation*, a London-based charity whose aim is to help children and young people overcome social and emotional barriers to learning. The first year of the course has covered a wide range of theoretical concepts with trainees encountering – through reading, seminars, lectures and essays – seminal works of Sigmund Freud, Melanie Klein, Anna Freud, Donald Winnicott, John Bowlby and Mary Ainsworth. I study alongside experienced teachers and an Educational Psychologist who all have children's well-being and development at the heart of their work, and we discuss and explore the theories in light of the insight they may provide into an individual child's experience of their learning environment. This term's lecture series on Attachment Theory has





been fascinating, with Heather Geddes' Learning Triangle model providing a useful understanding of how early experiences can affect a child's capacity to engage in the classroom, and how working in a relationships-based way – which we do so well at UCS – can enhance engagement and build confidence and resilience."

Adriane Martini – "I am currently undertaking the MSc in Teacher Education at Oxford University, a professional development course that combines practical training for educators with applied academic research. An integral component of this course is its practical orientation, requiring active involvement in training fellow education professionals in various capacities. For example, this year I developed an inquiry task gathering valuable insights from teachers on the efficacy of homework as a means to enhance learning. This research formed an integral part of the homework review at UCS, leading to policy adjustments that will be incorporated into the upcoming staff CPD program. Returning to university has already yielded significant advantages, including my promotion to Head of Research at UCS and the publication of my first academic work in the UK. Undoubtedly, the course demands considerable effort, particularly while juggling full-time employment, but with some organisation, it is a manageable journey."

TeachMeets

We are always astounded by the amazing ideas shared by our fantastic colleagues at TeachMeets. Hosting these events on Zoom has allowed for a large number of colleagues to attend and converse in breakout sessions, as well as for the events to be recorded and accessible to all colleagues on the Teaching and Learning Google Classroom. That being said, the final Foundation TeachMeet of the year was held in-person for the first time since lockdown. This allowed for enhanced discussion and greater collaboration between colleagues across the UCS community.

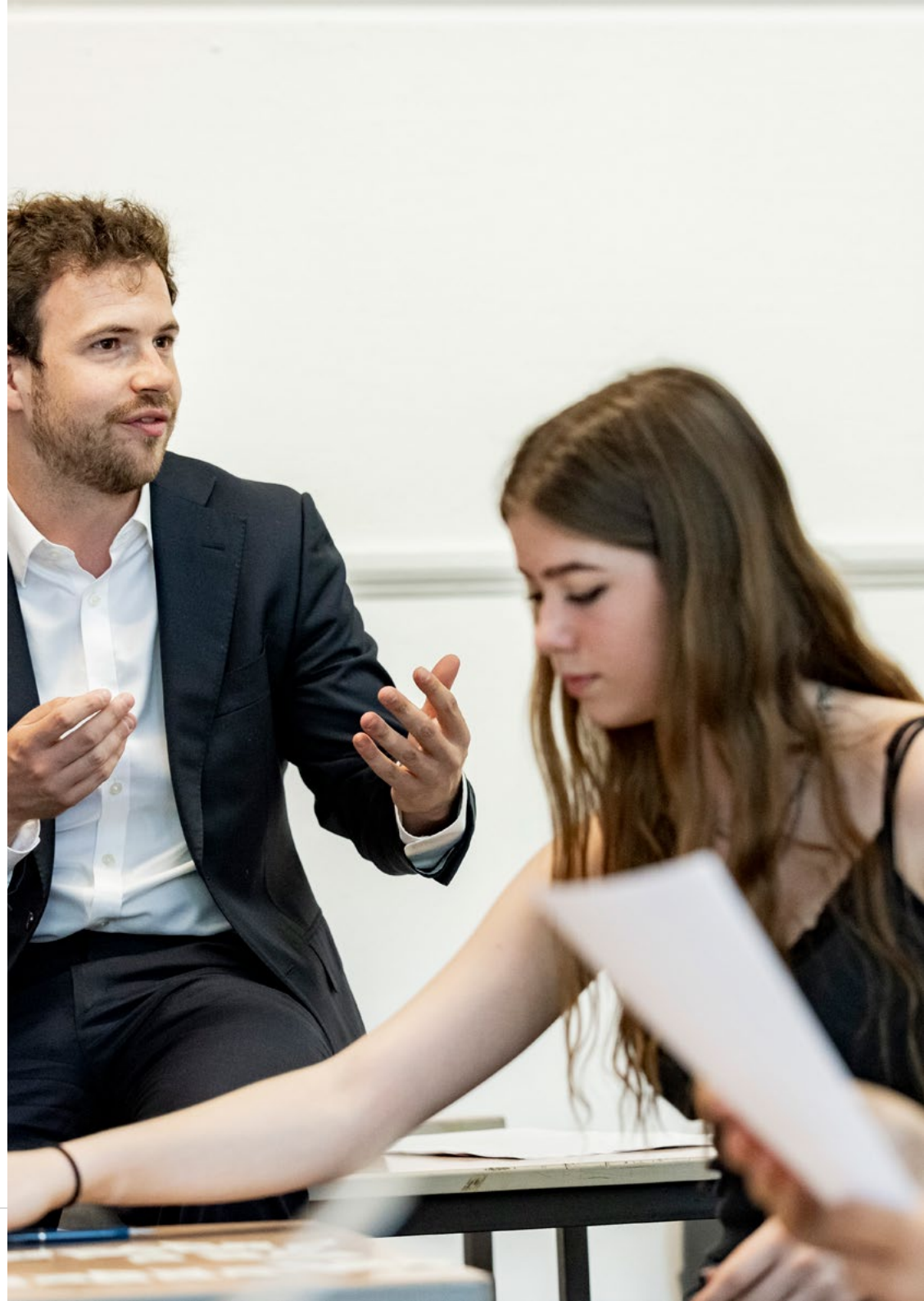
October 2022
James Firth – Sustainability
Thomas Underwood – Digital Textbooks
Patrick Milton – Optimus Walkthrough

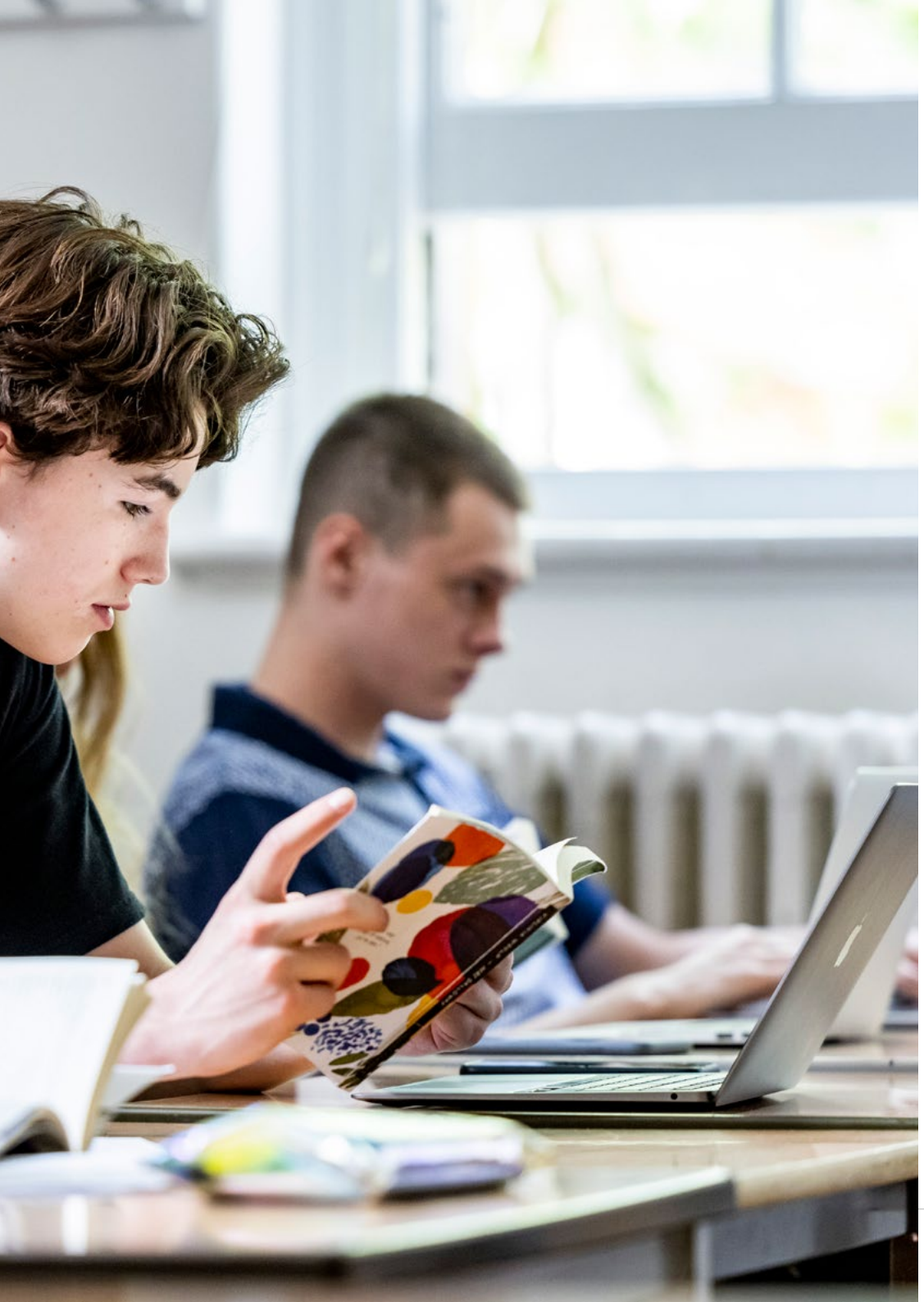
November 2022 – Foundation TeachMeet
Patrick Milton – The Metacognition Toolkit
Adriane Martini – 'Emotional Contagion' in the Classroom
Faria Griffiths – Equality, Diversity & Inclusion at the Junior Branch
Jessica Harris – Team Teaching

January 2023
Charlotte Hawes – Graphs to Support Learning
Simon Hoyle – UCS Learning Values
Michael Edwards – Online Quizzes
Pia Maggioni – The Curious Fridge

March 2023
Victoria Trinder – Lund Gallery
Mina Marche – Why I recommend being an examiner!
Maryam Al-Anizee – The Role of the Learning Mentor
Patrick Milton – The Reverse Revision Timetable & Dochub

June 2023 – Foundation TeachMeet
Sophie Ryan – Emotional Literacy
Adriane Martini – Homework
Oliver Bienias – Bursaries
Edd Pickering – Fundraising





Looking Forward: Artificial Intelligence by Thomas Underwood

Artificial Intelligence has established itself as a global phenomenon since the beginning of 2023 and has become a buzzword not least in the field of education. As I write this article at the beginning of July, I wonder just what will happen between now and its publication. We are witnessing daily developments, discovering new apps and reading AI headlines in abundance.

For two terms this year we have been monitoring the rapid development of generative AI and informing ourselves with regard to its use – both possible benefits and also negative side effects, guarding of course our approach to academic rigour. We have cast the net far and wide, consulted with pupils, staff and outside experts and have begun to see AI being used creatively and productively in a number of areas already.

At its core, Artificial Intelligence is a tool. As with all tools, we need to know how to use them effectively and when they are appropriate and fit for purpose. This brings to mind our 1:1 device policy, where we want to continue to consider how technology can be utilised most effectively in ways that improve learning and outcomes for pupils.

How do we equip our pupils to thrive today and in the future?

We must always acknowledge the fact that pupils use technology as it develops and the technology that they are using today is the least advanced and least powerful that they will use in their lives. It is therefore crucial that we continue to play a pivotal role in equipping pupils with the knowledge and understanding of these developments, in areas such as Artificial Intelligence, internet usage, social media, coding and e-safety etc. so that they may emerge as confident, responsible content producers, developers and consumers.

How do we use AI to encourage our pupils to be curious learners, yet also develop critical thinking?

Generative AI certainly has the potential to increase the quality and quantity of practice that pupils undertake, both inside and outside of the classroom. Such technology can support retrieval practice, low-stakes tests and self-quizzing, for example. AI can

also be carefully integrated into lessons to support and extend teaching and learning activities and to offer immediate assessment and feedback, which are also key elements of effective teaching.

Some of the ways in which AI has been used so far this year at UCS have included:

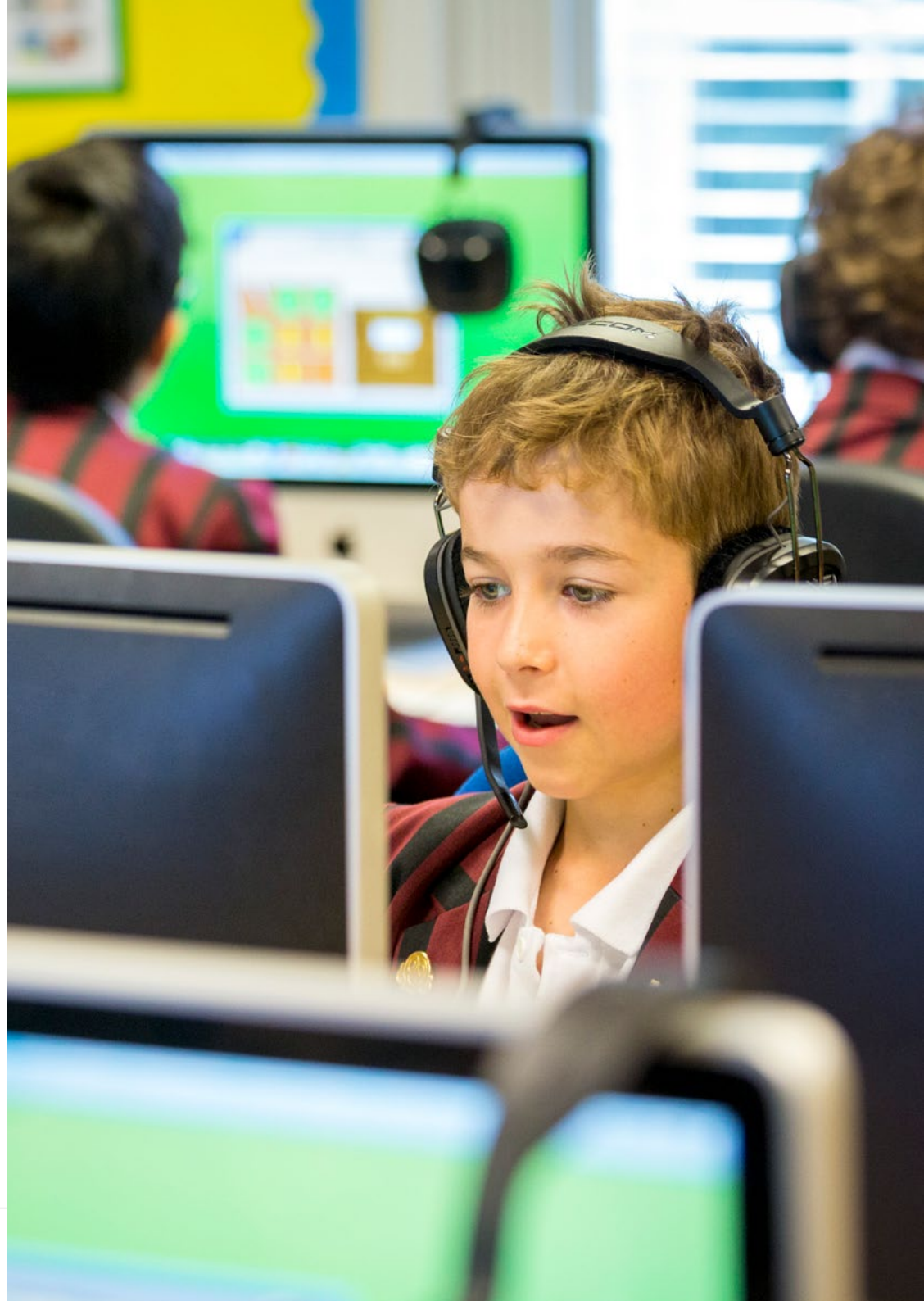
Personalised Learning: AI can provide adaptive content and personalised content, facilitating enhanced pupil engagement. One example of this has been with some EAL pupils using AI in Sixth Form classes to facilitate language barrier issues and enable further clarity to explanations and to aid with note-taking. AI has also been incorporated into some lessons as a debating partner or as a historical example or character.

Collaborative Learning and Problem Solving: Pupils have engaged in collaborative problem-solving, and experiential learning, for example in starting to teach literary analysis or devising examples to evaluate and analyse.

Creativity: The Edinburgh show this year is based on a collaboration between pupils and ChatGPT; it is used in Lower School Drama lessons, e.g. the sequel to Hamlet

However, whilst harnessing AI can offer numerous advantages, we understand that it is crucial to strike a balance between embracing innovation and upholding academic rigour. To promote the responsible use of AI, pupils will still be encouraged to think critically about AI and to explore related resources: AI can be a starting point for research, but it's important for pupils to explore related resources and evaluate multiple sources of information to develop a better understanding of a subject. Teaching digital citizenship (under the themed term Global Citizenship in the Lower School, for example) will, we hope, help pupils become informed and responsible users of AI technology. Pupils will also be asked, as ever, to sign the ICT Acceptable Use Policy in September and the revised form will include the JCQ guidance AI Use in Assessments: Protecting the Integrity of Qualifications.

Working with our IT Ambassador Group, one particular emphasis for next year will be to concentrate on the skill of prompt writing and continuing to use AI as a supplementary resource and personalised tool. Other Pupil Voice Groups have also been very helpful in giving us their perspective on the developments and how they are using AI effectively, including the integration of AI in apps such as Notion to aid revision and notetaking (please see the accompanying pupil article). We will also be continuing to expand on our video guides, some made by staff, others by pupils – for pupils and staff, to be part of the Study Smart website, alongside other such videos for pupils (and staff).

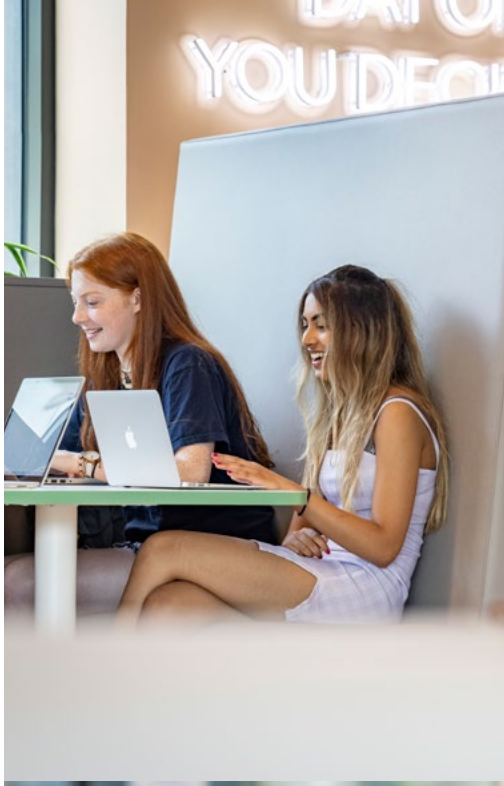


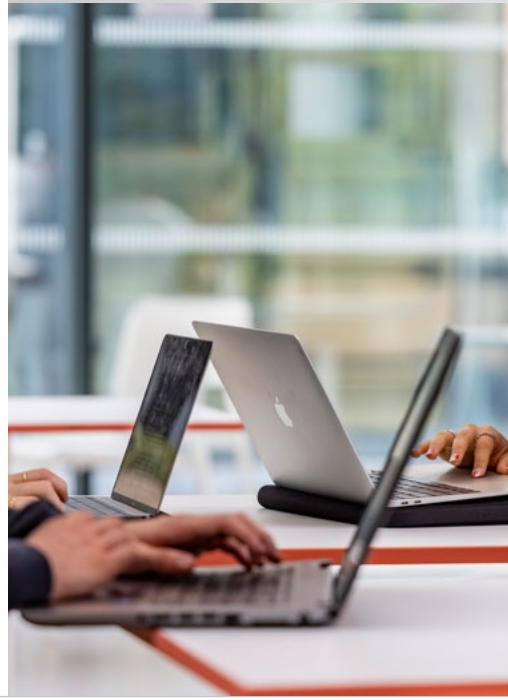
We seek to harness AI as a transformative tool to enhance teaching and learning experiences, empowering pupils with a personalised and immersive education and staff with AI-driven tools for innovation and efficiency.

How I'm Using AI
– Henrik Singh (Lower Remove)

I have been extremely interested in AI for years. Needless to say, when ChatGPT was released in November 2022, I was among the first to sign up and try this groundbreaking chatbot. The results were incredible – an artificially intelligent chatbot on a (then) completely free website was able to create quality content and answer almost any question in a matter of seconds. Best (and worst) of all, everything it created sounded remarkably human-like. The immediate response from the media included references to the 'Death of Education' and the countless 'cheating' concerns of pupils and teachers around the world. However more recently, we have started seeing a push for 'AI-driven education' – the ways in which we could actually harness the power of AI in a global transformation in the way pupils learn, dramatically pushing up the bar and solving the century-old problem of 'Group Instruction as Effective as One-to-One Tutoring'. This quote was actually taken from Benjamin Bloom's 1984 study exploring the '2 Sigma Problem', as he called it. This study demonstrates the transformative effect of 1-1 tutoring on pupils' grades, but also raises the issue of the economic feasibility of implementing this approach on a large scale. Educational organisations around the world have been discussing how to 'Get it Right' – including the AI+Education Summit at Stanford University, and The Khan Academy, which has been one of the first organisations to implement AI as a tutor into their educational services. Sal Khan (founder and CEO of Khan Academy) argued in a TED talk in May that "we're at the cusp of using AI for probably the biggest positive transformation that education has ever seen". Here are some of the ways that I have been using AI to productively and creatively enhance my studies. These examples are particularly useful for revision and have helped me memorise content much more quickly and easily.

I use two main tools: [ChatGPT](https://chat.openai.com/), an AI chatbot for interactive sessions, and [Notion AI](https://www.notion.so/product/ai), an AI assistant integrated into my note-taking app. Recently, I've also been experimenting with monic.ai, which automates the process of creating flashcards with notes, slides, and PDFs. However, as AI language models continue to improve, this is the part of my workflow that will likely change the most. There are a few significant ways in which I have been using these tools to enhance my studies. The first is active recall. This is a study technique that relies on actively retrieving information from our memories by repeatedly testing ourselves on a set of questions, rather than passively rereading notes. However, there is a problem with active recall – creating the questions to test yourself with in the first place. This is where AI comes in – it can quickly and easily create any number of questions based on your notes (or topic lists). There are two types of questions I generally revise with – active recall questions and exam-style questions. Fortunately, AI can create both types and can even mark your answers. The last way I have been using AI to enhance my studies is also, I believe, the most powerful. By using AI to learn your strengths and weaknesses while testing you on questions, and using this knowledge to base the questions around your weaknesses. This is where the true power of AI in education lies: hyper-personalised questions.





Next Steps

Building on the successes of this past year, our focus will be to continue enhancing pedagogy and the learning experience at UCS. To further equip teachers, we will be launching an overview document of the UCS Teacher Toolkit. As part of this, strategies that nurture creativity in the classroom will be prioritised, and this will form the focus of our in-house research.

We will be expanding the 1:1 device program by improving staff and pupil skills for integrating technology into lessons. We aim to develop increased consistency across subjects regarding digital versus print resources. The reduction of paper resources will support the school's sustainability initiatives and lower our overall carbon footprint. We also look forward to further developing the integration of AI into our curriculum.

The landscape of education and the working world is rapidly changing, not least with the development of AI. As such, we will be conducting a skills audit so that we can re-evaluate and update the UCS Learning Values to align with the future-ready skills we want our pupils to develop before they move beyond UCS.

We are committed to building on the accomplishments of this past year through strategic initiatives focused on equipping staff, gathering feedback, conducting research, and leveraging technology – all with the ultimate goal of enriching learning and progress at UCS.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