Uppingham Community College

Case Study

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OCR
Oxford Cambridge and RSA

GCSE Mathematics

Uppingham Community College

Diane Cooley
is Head of Maths at Uppingham Community College (UCC), an 11 to 16 comprehensive in the East Midlands, with 887 pupils across the ability range on its roll.

Diane joined the school as HoD in September 2013, and the school began using OCR's GCSE Maths for the first time. She had used OCR's Maths GCSE since 2010, as KS4 co-ordinator then HoD. The UCC Maths department, which consists of four full time teachers, one part time teacher and two members of the SLT who teach Maths, is a particularly successful department at the school.

"In 2011, 65% of Maths students achieved A* to C with a modular GCSE. The results were improving but with the move from modular to linear, everyone expected results to drop," said Diane. "In fact, in 2014, using OCR's linear GCSE Maths for the first time, Uppingham's results went up to their highest ever. 86% of Maths students got A* to C. We achieved 47% in our '4 levels of Progress' measure last year. All students are entered for the GCSE; last year 50 at Foundation and 130 at Higher Tier."

Diane explained how the school has achieved these results. "I think we have achieved this through the quality and dedication of teachers. We provide students with plenty of constructive feedback and as a team we share resources, plans and good practice. I think the students respond when they know how hard we are working for them. And that goes up to the Headteacher who runs after-school detentions for students to catch up on work if they have missed a deadline."

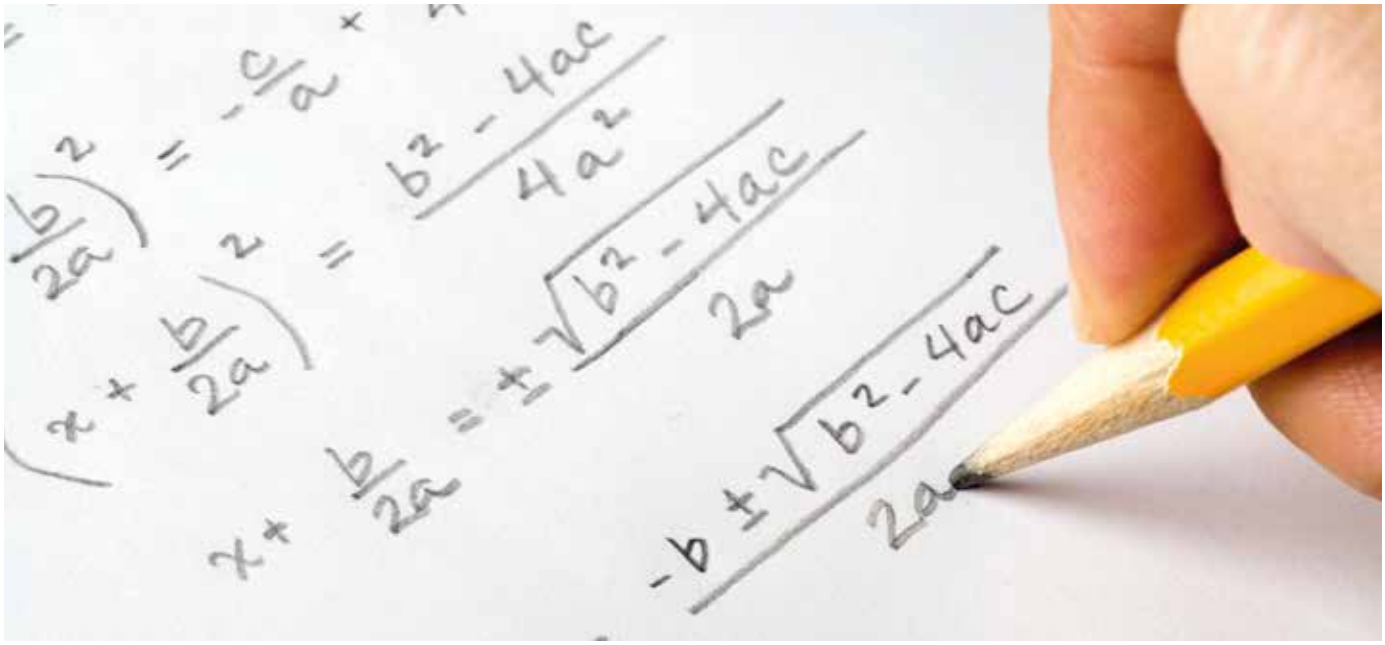
What extra support does the Maths team provide for students? "We also run extra sessions to help Maths students: Friday after-school sessions, half term revision sessions and focused revision between exam papers. In 2013/14, we had a dedicated intervention teacher employed to do 1:1 work with individual students across the ability range on pre-identified topic areas – this particularly helped the A-A* students; it's not just focused on the C/D borderline students. Our students can also email their teachers for help on homework tasks outside of school hours."

The move to linear

"I feel that OCR really understands linear. The papers are well laid out with clear progression from beginning to end. The questions are accessible, but sufficiently challenging at the end of each paper to ensure that it caters for all types of learner."

"I first encountered OCR as a parent when my daughter did her GCSE Maths – she did OCR's Graduated Assessment Mathematics GCSE. It made so much more sense than any of the other modular courses available at that time, by building up knowledge and confidence in graded stages over the two years rather than teaching certain topics in blocks never to be seen again once that module was complete.

"I taught Graduated Assessment then swapped to teaching linear in 2011/12. I moved over to linear before it was compulsory, and I swapped because I really liked the OCR linear course and papers. There is a sensible amount of overlap from Foundation across to Higher. The Higher paper has a good amount of algebra, and questions that can be answered using an algebraic method.



"I think our students like the gradual challenge through the papers and the accessibility. They also like the fact that there is good course coverage so when they use past papers they really do help them to revise."

Support from OCR

"OCR Interchange offers a superb service; it allows me to analyse the results and act upon students' strengths and weaknesses. I like the fact OCR have always been positive and enthusiastic about their own materials and the quality of their resources. I find the OCR website is easy to navigate for what I want and there are lots of materials available online for current Year 9 students who will be our first year group through the new GCSE (9-1).

"Only the most recent materials are password protected through the Interchange service. We can use them as mocks, safe in the knowledge that students have not already seen them.

Preparing for the new Maths GCSE (9-1)

Following on the schools' success with OCR's existing Maths GCSE, Diane is confident about switching to OCR's new GCSE (9-1). "From what I can see of the current sample materials, we like the style of the questions and the breadth of topics covered. The context is not overly adult – it is more accessible to 16 year olds. There is scaffolding in place which helps to break down some of the questions into achievable parts rather than one daunting task. The additional marks that are available for working out are good – we really encourage QWC and this reinforces our ethos and we like the fact that each paper is out of 100."

Developing problem-solving skills

"We have endeavoured to build in greater emphasis on problem-solving activities, particularly algebra, to the scheme of work throughout the last year and a bit. We have participated in the UKMT Maths Challenge for many years for example. I see the GCSE as a 5 year course anyway, we don't differentiate dramatically between KS3 and KS4.

"What will be most challenging is the emphasis on problem solving and interpreting questions to identify the mathematics required. But as a department we are working on that by increasing the students' exposure to solving problems. Once a fortnight, every KS3 class has a lesson where the focus is an open-ended task, encouraging them to select the appropriate mathematical concepts and strategies, to work systematically, and to analyse and interpret their findings. This should be preparing them for the new style exams that have less signposting than the previous specification. A colleague in the Maths team has already attended an OCR problem-solving training event, and we intend to book onto further training events including SOW development."

Foundation or Higher?

"There will always be Foundation students that will not be able to access all of the Foundation topics, and the same for Higher. We will plan the scheme of work for progression just as before. We will continue to be positive and encourage students to achieve the best that they can achieve."

"Decisions will be more difficult in the first year when the new exam is an unknown quantity. In the first instance, I will be looking at expected levels of progress and progress achieved throughout KS3. Currently I know the exam inside out and know instinctively the appropriate tier of entry, but I will seek advice from OCR representatives for the new GCSE.

"We also have some really bright students here at UCC and we are relishing the additional challenge offered by the extended specification. This will work alongside an additional Maths course that we already run in year 11 and allow us to further prepare students for the challenge of A Level Maths."

Meet the team at **ocr.org.uk/mathsteam** and contact them at:

01223 553998
maths@ocr.org.uk
@OCR_maths

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