

Meaningful Learning Experiences

Strategic Commitment	✓	Part of a regional, ESF-funded 'Careers Local' programme
Curriculum Provision	✓	Supporting GCSE learning about 'area and volume'
Employer Partnerships	✓	Small firm of quantity surveyors and former 6 th form pupil
Reflective Young People		
Informed Career Choices	✓	Revealing a variety of roles in construction

Calculations for a quantity surveyor help GCSE students apply learning about area and volume

In their bid for funding support, Pingle Academy in South Derbyshire stated, *'We are in need of a sustained and regular approach to CEIAG and our students need it to be embedded into their lessons.'* One of six curriculum projects developed by the school involved year 10 students learning about area and volume, as part of GCSE mathematics. The teacher brief for the project hoped that the outcome would be, *'Better understanding of area and volume, as well as applications of where and when they would need to be calculated. Improved problem-solving skills and applications of these mathematical processes.'*

Millar Partnership is a small, local, professional firm of Quantity Surveyors that has been in business for 30 years. One of the partners had attended the sixth form at Pingle Academy. He provided students with information about a real client who is building a large house in the country to which he wanted to add a maisonette above the large garage alongside the main house. Students were sent a memo-style brief, accompanied by architect's plans, measurements and a schedule of material costs, and challenged to calculate the cost of this additional work.

The challenge concluded with the promise that, *'A director from Millar Partnership will look at your calculations – including the working out – and give you feedback.'*

Benefits for the Students

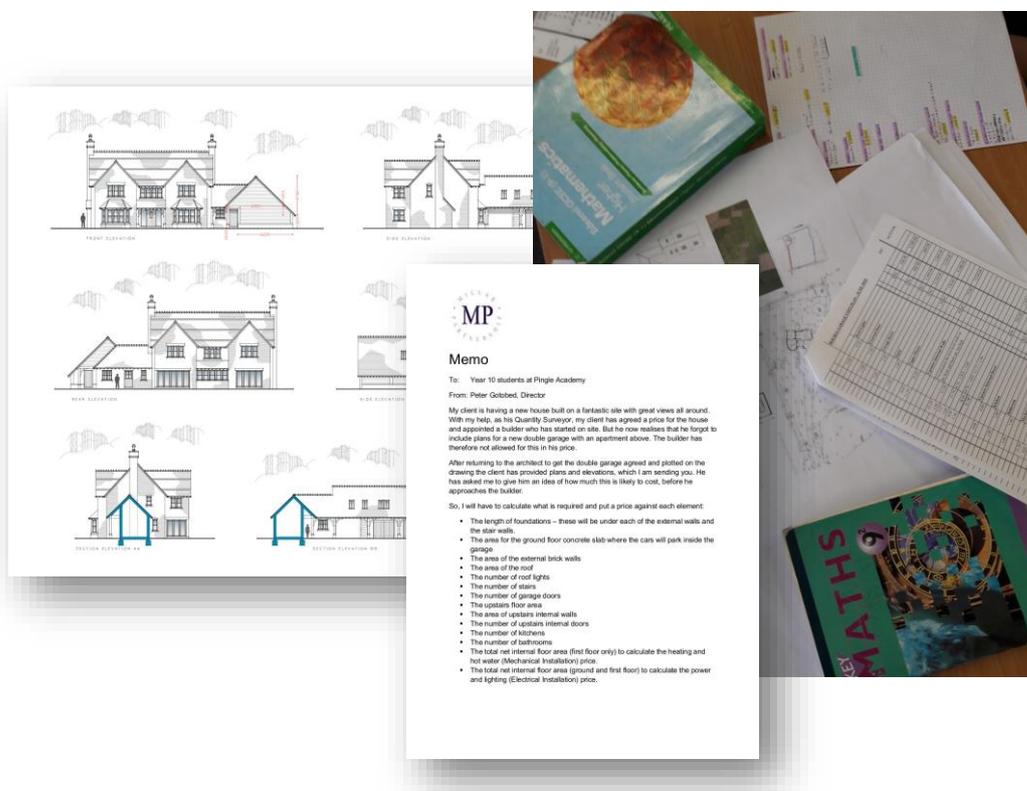
- *'I found it very surprising that we were going to get given real information on a real house that would cost that amount ... we don't normally get given that work; we just get textbooks'*
- *'It's beneficial because ... you get to learn about the real world, not from a book'*
- Students discovered that academic topics, including Pythagoras' Theory, can be applied to real situations and that maths is an essential skill for careers in Quantity Surveying
- The project helped to achieve the aim for the school's series of curriculum projects, to: *'... add value to the lessons through the employer interactions and extra engagement and motivation that brings. This will drive and accelerate progress in these subjects'*

Benefits for the School

- *'It's been great to be a 'co-learner' and seeing them trying to decipher what the relevant information is, and what the relevant maths is, has been great and a very good problems solving challenge that will no doubt be useful for them in exams and the workplace'*
- *The project helped achieve the CPD aim for the series of curriculum projects, to: '... gain the knowledge and skills to identify areas of the curriculum that will be suitable for employers to become involved with within the classroom ... to provide students with those meaningful employer interactions across the curriculum'*

Benefits for the Employer

- *'Once they looked at my answer in comparison to their answer, they could see where they got the calculations right and where they had made a mistake'*
- *'It's great, because to see they've enjoyed themselves doing it and they've actually learned how to utilise some of the lessons they've been taught in class on something that's practical and useful out in the real world'*
- *'It's been not a lot of effort. But I've seen that they've got some enjoyment out of it; I've got some enjoyment out of it. It's a win-win'*



Year 10 maths students were challenged by a local firm of quantity surveyors to apply classroom learning about area and volume to a real construction project. A partner from the practice who sent the brief visited the students to give feedback on their calculations.