

Rolls-Royce Blog DECEMBER LWS ACADEMY

Charlotte Hurst (Science Lead)

This month has been a bit different; I have been leading the project as Ms Page has been confined to her office as she is on crutches. This has given us the opportunity to consolidate the skills and knowledge that we have learned over the term. We have deepened our science knowledge around the practical skills we have learned. Students have started to make a range of LWS STEM LEARNING posters that show the skills needed for our project and how each skill/trade is linked to the STEM curriculum or future careers.

At the community hub students have continued with their painting, tiling and started to plan their furniture upcycling for January.

In the science classroom we have been focusing on the science of paint and linking this to the work we have been doing at the hub. Students have been making paint using malachite lumps, white spirit and linseed oil which they grind up in a pestle and mortar to make a paint. Students then identified which was the pigment, solvent and binding agent. We then compared the paint they had made to the one we have been using at the hub by creating pictures using both the paints. At the hub we have look at the science of how the emulsifier in the paint helps it to mix and the solvent in the paint evaporates.



Year 7 students using their maths skills to work out area for tiling.



A Year 8 student working out tyre pressures, measuring liquids and basic car maintenance.



Andrew Saunders (Maths Lead)

I am the new Maths Lead at LWS and I am really excited about the STEM hub project. With a background in positive psychology, design technology, young enterprise, ICT (and maths!) I think this is the most exciting educational project I've ever come across. I'm passionate about putting everything we learn in Maths into the real world, and this project is an extraordinary opportunity to do so. This next stage of the project, designing and building ultra-affordable housing solutions, gives our students the chance to grapple with a current, urgent problem, with a focus on solving issues they come across. Another brilliant aspect is the integration of recycling of materials alongside building in high-tech solutions and minimising the use of energy and resources. I am thrilled at the way the students are getting excited about the design stage and look forward to their enthusiasm as they begin to actually bring their designs into reality. The involvement of a wide range of businesses, skilled trades and supporting professionals is also exciting, ensuring that the students produce a final product of exceptionally high quality, able to be sold to finance the next iteration of this project.

Liz Morris (ICT Lead)

I am the new ICT lead at LWS and I am looking forwards to working with the STEM project. I have lots of experience in programming, coding and robotics and look forwards to increasing students use and knowledge in these areas.



Community Profile: Ian Knight (Knight Architectural Design)

Ian Knight is a local Architectural Technologist. He has been working with the students to work on the design of Stage 2 of our project. He sent us a lovely email to say thank you;



Year 9 students working through their designs with Ian Knight.

“Thanks for making me welcome this morning and it was a pleasure to chat with the group of boys about their ‘Tiny House’ project.

It was good to see that they were getting their thoughts down on paper and developing the designs with the refrigerated trailer in mind. The practicalities of the scheme really need exploring early in the design phase, so chatting about materials, structures, energy production & saving and understanding the science at this point was useful.

The boys gave good answers when I dug for a fuller understanding of the scheme and we were able to hopefully end the session with them thinking deeper about the day-to-day elements they’ll need to incorporate.

K.A.D. is a technologist led practice with more than 7000 projects completed over the past 18yrs. 7 of the 10 staff joined as apprentices and we operated a peer-training system in conjunction with local college day-release. We frequently have work placements from students as it’s an ethos at our core to equip the architectural developers of the future.”