December diary entry from Ryders Hayes STEM Project (Rolls-Royce)

At Ryders Hayes Academy, our project is a whole school investigation into the different ways that STEM technology is currently used in industry and consider how it will help us in our everyday lives in the future. Using STEM software and hardware kits (SAM Labs), pupils will create innovative systems and build their code, to provide sustainable solutions to problems within a real-world context.

Claire (Y5 Teacher, Science/STEM Lead and Project Leader)

This month has continued with the SAM Labs lessons for our Year 5 pupils who programmed a car to move when the traffic lights turned green. The children had to programme the traffic lights, as well as debug the code when it didn't work. Seeing the children use the equipment has shown how much having these practical activities ensures that pupils are making progress in their STEM skills. Having the chair of Friends of Ryders Hayes support our lessons made this possible to make sure we could use the equipment across the whole year group and children had support for their learning.

Year 5s using SAM Labs

All teaching staff have had a second successful CPD session, all about computational thinking, which has made us realise just how much these skills are going to be vital for our pupils' futures and highlighted how important it is that we are teaching these skills in our school today.

As project leader I have been working on getting the videos together for our welcome video as part of the project. After speaking with our Rolls-Royce mentor, I am planning ways to bring virtual experiences for our pupils to support the project.

So far, we have spent £1,500 on SAM Labs equipment and £600 on coaches = £2,100.

Bridie (Y6 Teacher and Computing Lead)

This month we have continued with our SAM Labs training and all the exciting opportunities available to our children. It is linking successfully with our Computing curriculum and bringing the vocabulary of computing to life. Our children continue to be naturally inquisitive and excited at the opportunity to tinker with this hardware. I have been developing this into our Computing curriculum after Christmas and look forward to delivering the project next term.

Kath (Y4 Teacher and Family Learning Lead)

During this month I have made sure that I have worked with Claire in Year 5 on the SAM Labs kits to ensure I can deliver the lessons in Year 4 successfully. The training from SAM Labs made sure that we have good subject knowledge of computational thinking skills that we can pass onto our pupils and develop their skills further. I look forward to running the project in Y4 next term.

Emily (Y1 Teacher and D&T Lead)
This Month, I have enjoyed the training from SAM Labs and spent time thinking about how this links to our D&T curriculum. It's important that we build the SAM Labs into our curriculum to make sure the project is sustainable and is part of our curriculum offer for every pupil to ensure they gain the skills for their futures.

Laura (Chair of FoRH)
This month I went into school to join a SAM labs lesson. I helped to get the equipment out to the children and to support them where needed. I really enjoyed seeing the children develop their skills with the iPad, connecting the equipment and seeing their reactions. This is a fantastic opportunity to develop their stem skills and team working skills.

Angela Moore (Chair of Governors)
It has been great to see the children already getting involved in the project and learning such valuable skills for the future. Jobs of the future will be heavily reliant on STEM and it is so important that young people are equipped with these skills which will enable them to access high value employment. The project has already gained momentum and the staff CPD is providing a good platform on which to build the project next term; there is great collaboration throughout the school.

Link to updates on our project:
https://www.ryders-hayes.co.uk/school/our-community/ryders-hayes-stem-project