January Diary Entry from Ryders Hayes STEM Project (Rolls-Royce)

Rolls-Royce Schools Prize for SCIENCE & TECHNOLOGY Finalist 2020-2021

@ Ryders Hayes STEM

At Ryders Hayes Academy, our project is a whole school investigation into the different ways that STEM technology is currently used in industry and considers 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 of switching to home learning has meant that we haven't been able to use the SAM Labs in our lessons as originally planned. What we have managed to do is some online coding for pupils at home to familiarise themselves with the SAM Labs software so that when they come back into school, they can use the hardware with more confidence that they will be able to programme their equipment. We have included elements of debugging into their home learning computing curriculum to ensure they consider ways of problem solving.

All teaching staff have had a third successful CPD session, all about using the SAM Labs blocks, which has enabled us to recognise each of elements of the SAM Blocks set in order for us to use them with our pupils.

As project leader, I have been looking at ways of bringing visitors into the school to give remote career talks about what technology they use in work, what has changed and what they think it will be like in the future. I have worked with our Chair of Friends of Ryders Hayes (FoRH) to contact our parent community following their volunteering in the parent questionnaire. Hopefully we can get these lined up and also do a follow up when we are able to have visitors into school.

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

Bridie (Y6 Teacher and Computing Lead)
Computing has become even more important due to further restrictions and we feel that our children are working really hard to navigate computing equipment, becoming more resilient as a result. I have used part of the computing budget to purchase more SAM Labs equipment as we feel that it supports the children in their computing learning journey.

Kath (Y4 Teacher and Family Learning Lead)
I have enjoyed the staff CPD training and have been able to build my own skills in preparation for when the children return to class. I have set some coding tasks using the SAM Labs software for my Y4 class which will ensure they are still building skills for SAM Labs even when not in school.

Emily (Y1 Teacher and D&T Lead) - on secondment so Amy Wall (Y3 Teacher) is looking after DT.
I am currently looking after D&T whilst Emily is on secondment and so I have spoken with Claire regarding how D&T fits in with the Rolls-Royce project. I attended the SAM Labs staff CPD and am keen to ensure that this project allows pupils to build their D&T skills along with their science and coding to give a fully rounded STEM experience.

Laura (Chair of FoRH)
I have contacted the parents who expressed an interest in coming into school to show the children how technology is used within their job roles and within the companies they work for. I have had a prompt response from one of them, and Claire will arrange the next stage with him. We are hoping he will be able to attend an assembly or an online discussion to talk to the children. Then once we are able for him to come into school, we can arrange a more practical session.
My children have been practicing coding within the home learning, which is a great experience for us all.

Angela Moore (Chair of Governors)
I am delighted that we have been able to use technology to keep the children engaged in some way with the project over this period of school closure. Teachers have been using the options available to ensure coding and technology is still actively discussed during their remote teaching.

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