October 2021 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 our Year 5s have enjoyed a trip to RAF Museum at Cosford for a Forces in STEM event. They had a talk about space from ThinkTank, a session on Ozbots from Network Rail and a workshop on rampaging robots from Leonardo. This was a great success and children thoroughly enjoyed the morning and asked lots of questions about space travel and flight in general. Year 5 have also had their careers day thinking about the Transport sector and how technology has changed over the years and what it might be like in the future.

I have sent questionnaires to pupils, staff, and parents to evaluate our STEM project and to feed this into our report and future plans.

I have discussed with SLT using the money from Rolls-Royce for a whole school trip to Think Tank in Birmingham, planned for early 2022.

So far, we have spent £1,500 on SAM Labs equipment, £600 on coaches, and £183.96 on 3D printer pens = £2,283.96

Bridie (Y6 Teacher and Computing Lead)

We had been timetabling for the Year 6 children to support the Year 4 children with using SAM Labs as part of their Computing curriculum - we hope that this will be happening later on this year. We have also found links with Skills Builder who are going to be providing each class with a 'Project Day' spanning two full days or a week of afternoons. Some of these are linked with STEM and encourage the children to think practically - we are looking forward to being involved!

Kath (Y4 Teacher and Family Learning Lead)
There have been many excited children in Year 4 the last few weeks as we have been designing, building, and lighting up our homes.
We created our homes from recycled materials so supporting our links with recycling and helping with saving our planet in a small way.
Then the real excitement happened as they all chose what they wanted to light up. A room, a bedroom, a tent, a fire. Some even managed to include a switch within their circuit.
The children have really seen STEM and work and realised jobs they can do from the learning which has taken place within the classroom.
The icing on the cake would have been to collaborate with the children who used the SAM Labs last year so they could have created circuits on this. Sadly, due to rising Covid cases we are back in bubbles. We hope to work collaboratively later in the year.

Anita (Y3 Teacher and DT Lead)
We have had a fortunate offer from Wolverhampton University to provide us with a 3D printer so we're really excited to link this in with our STEM curriculum. Claire and I have booked onto a free webinar to learn how 3D printing can work in primary schools. This has followed on from the 3D pens bought with the prize money through Neil Chattle, our Rolls-Royce mentor.

Laura (Chair of FoRH)
I have discussed with Claire how to support the trip through the PTFA by asking volunteers to escort pupils on the trip and how to run the showcase event. We are currently working within Covid restrictions, so this event is on hold for now.

Angela Moore (Chair of Governors)
All the STEM activities sound a great success and having a trip to link all the pupils learning to their STEM curriculum is a great idea and one which will allow the children to have a memorable and worthwhile learning experience.

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