

October diary entries 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 we have been busy getting set up to start our exciting STEM project. I was delighted to hear the news that we had become a finalist and so I have been mainly setting up the team, making sure everyone knows what roles they play and learning from each team member their specific contribution to the project. I have spoken to our Rolls-Royce mentor who gave me lots of information and advice which I have heeded.

As part of our project, the Friends of Ryders Hayes (F0RH) and I have sent out questionnaires for our parents, staff and pupils to find out what STEM skills, knowledge and understanding we have in our community. These questionnaires will also be sent out at the end of the project for monitoring and evaluation purposes. We have asked for parent volunteers who work in the STEM industry to further build community links.

I have ordered the new technology we will be using (SAM Labs) and have had a play so that I get a good understanding before the children (who will probably pick it up much quicker than me!) are let loose on it. I have booked a series of CPD events from SAM Labs to be run remotely through zoom for all of our teaching staff and project team.

I have attended a work experience day, run through our Careers Hub, as to the future technologies within the Transport industry within the next 10 years. Our Year 5 classes have also had a career industry day on Transport and Technology, through Microsoft Teams, and have been thinking about what careers are linked to transport and how the technology we will use in class will have an impact on their career choices of the future. One child reported saying, "I used to want to be a footballer, but now I want to be a hover bike engineer."



Year 5s on Transport Careers Day via Microsoft Teams

To continue our Y5 science theme of Forces, I have booked a STEM Day at RAF Cosford where children will design and build rockets, which will be followed up with a remote learning session for families to design and make helicopters and investigate how to make them fly further/longer. We have used funding from the Rolls-Royce to pay for coaches to

get children to the event. This will then feed into our first SAM Labs session where pupils will be able to build and code an autonomous vehicle.

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 started to look into the STEM project using SAM Labs. Claire and I were first introduced to SAM Labs last year and saw the potential in using this technology. As Innovation Leader, it is really exciting to see what the children will be able to achieve in their STEM learning and look forward to their future careers using this technology.

We met with Laura, a member of 'Friends of Ryders Hayes' (our parent link team) who was keen to be involved and learn how to use the devices, it was good to have a tinker with the devices!

Kath (Y4 Teacher and Family Learning Lead)

This month we have started to look into the STEM project using the activities to fit into our put Y4 science and STEM topic of electricity with an aim to code the SAM Labs to light up a pantomime set. The children have been looking at circuits and lighting up a room which we will use to light up a stage for our main project.

I met with the 'Friends of Ryders Hayes' to discuss the questionnaire and letter to parents and gave feedback to Claire regarding this.

Emily (Y1 Teacher and D&T Lead)

This month I have had a meeting with Claire about the project and discussed ways of bringing in D&T curriculum, as well as had a go at the SAM Labs equipment to see what it can do. I am really excited to see where the project can take us and to taking part in the CPD.

Laura (Chair of FoRH)

This month I have attended a meeting with Claire and Bridie to find out more about the project and the exciting activities that we are going to be able to do. At our FoRH meeting, we have discussed and put together a questionnaire to see if we can get parents involved to share their skills with the children. Hopefully this will be done remotely so that the children can see their skills in action. I am looking forward to seeing the results of the questionnaires, and am planning to come into school after half term and support the children who are in school to use the SAM Labs equipment.