



#InspiringLancashire Project

Mid-point Evaluation Report





Developing the digital skills of young people in Secondary Schools across Lancashire

Engagement:

52 Secondary Schools.

103 teachers attended a full day of CPD/Training.

2368 Year 8 students have directly been impacted upon through student workshop days at their school (this number is set to increase).

3807 additional students have been indirectly impacted upon as a result of the programme through the access to 3D printing technology provided to the participating Secondary Schools (this is based on data provided from 25/52 Secondary Schools - the remaining schools are being followed up with).



What the participating students have said:

70% of students participating said that this project made them consider their KS4 options leading to a job in science, technology or engineering.

81% of students participating said they were either confident or very confident in using the 3D modelling software.

67% of students participating said they were either confident or very confident in slicing and preparing 3D models for 3D printing.

72% of students participating said they were either confident or very confident in 3D printing their models.



What the teachers have said:

98% of teachers participating said they were either confident or very confident in the applications of 3D printing and additive manufacturing in different industries and how this translates to potential career choices.

98% of teachers participating said the project has helped them to develop or significantly develop professionally.

100% of teachers participating said the school workshops had improved or significantly improved the development of new and specialist digital skills with learners.

100% of teachers participating said the school workshops had generated a positive change in learner attitudes e.g. wellbeing, a change in attitude or preconceptions, enabling them to make wider, different or more informed choices and/or improved life or life chances.

100% of teachers participating said the learners had made a connection to how the school workshops could impact on future life chances e.g. awareness of roles in science, technology and engineering, career choices.



Case Study

#InspiringLancashire



St. Augustine's Roman Catholic High School, Clitheroe

Neil Hodgson is the curriculum leader for Design and Technology, since his appointment he has been committed to transforming the department by providing a rich curriculum of Design Technology and Engineering Systems supported with effective technology. In this case study, Neil shares his vision for transforming Design and Technology at St. Augustine's and his experiences with CREATE Education and how they have supported him in his vision.

CREATE Education have supported the school since October 2018 when we supplied their first 3D printer, since then we have provided ongoing free technical support and supporting resources to support the delivery of 3D printing technology within the curriculum.

"CREATE Education have helped me to deliver the Engineering Systems syllabus at KS4 since I started running the course 3 years ago. The 3D printer and the tools available to support the delivery of the learning of CAD CAM are so relevant to the modern engineering factory model."

During this academic year St. Augustine's have also been involved in the BAE Systems funded #InspiringLancashire Project delivered by CREATE Education.



CPD and Training

The first stage of the #InspiringLancashire Project was to deliver a full day specialist 3D printing CPD training day to two members of staff from the school along with a new 3D printer and 3D printing materials for the school, supported with a range of curriculum and further CPD resources.

"The CPD training was a really good day, which provided the opportunity to visit the CREATE Education office and meet the staff who were all extremely knowledgeable and helpful in the unboxing and installation of the 3D printer. The information and presentation that were provided are valuable teaching resources that can be used in class to inform colleagues and pupils. The office environment had been carefully arranged and was a really professional standard. The team had clearly prepared the space with much care for the best delivery of the sessions. The quality of the communication, product, resources and delivery were all exceptionally good."



School Workshops

The next stage of the project was to deliver two hands on 3D printing workshop days in school to 60 Year 8 students, where they learned to use the 3D modelling software and the 3D printer whilst taking part in a practical STEAM design challenge to design and 3D print rockets.

"Thanks so much for the workshop sessions, on behalf of the school, it has been a wonderful experience for the pupils with so much information given about the possibilities and opportunities within 3D printing. I have been busy printing all the nose cones and bought enough film canisters to give all pupils a completed rocket assembly. They look good now they are all completed."

"I am looking forward to seeing how they engage and progress with the Onshape work. I have set up contact groups for the pupils so that I can send additional guidance to them and share examples of good practice. The extra-curricular sessions should be able to take a new direction into this over the coming months."

"The workshops both went well, the children showed great enthusiasm for the programme and I am looking forward to leading them through the next phase of the 3D printing implementation. It was good to see so much buzz in the department. it shows what can be done when people have a shared vision and some focus / direction into providing opportunities for young people."

"It was funny that the day after the student workshop, Jude (one of the Year 8 students) emailed me with his latest model which he insisted that I printed. When I downloaded his STL file it was titled - 'Radish'. Of course, it was a model of a Radish he had modelled in Onshape on a plinth. What a creative mind he has! That has been done and he is already on with the next project."

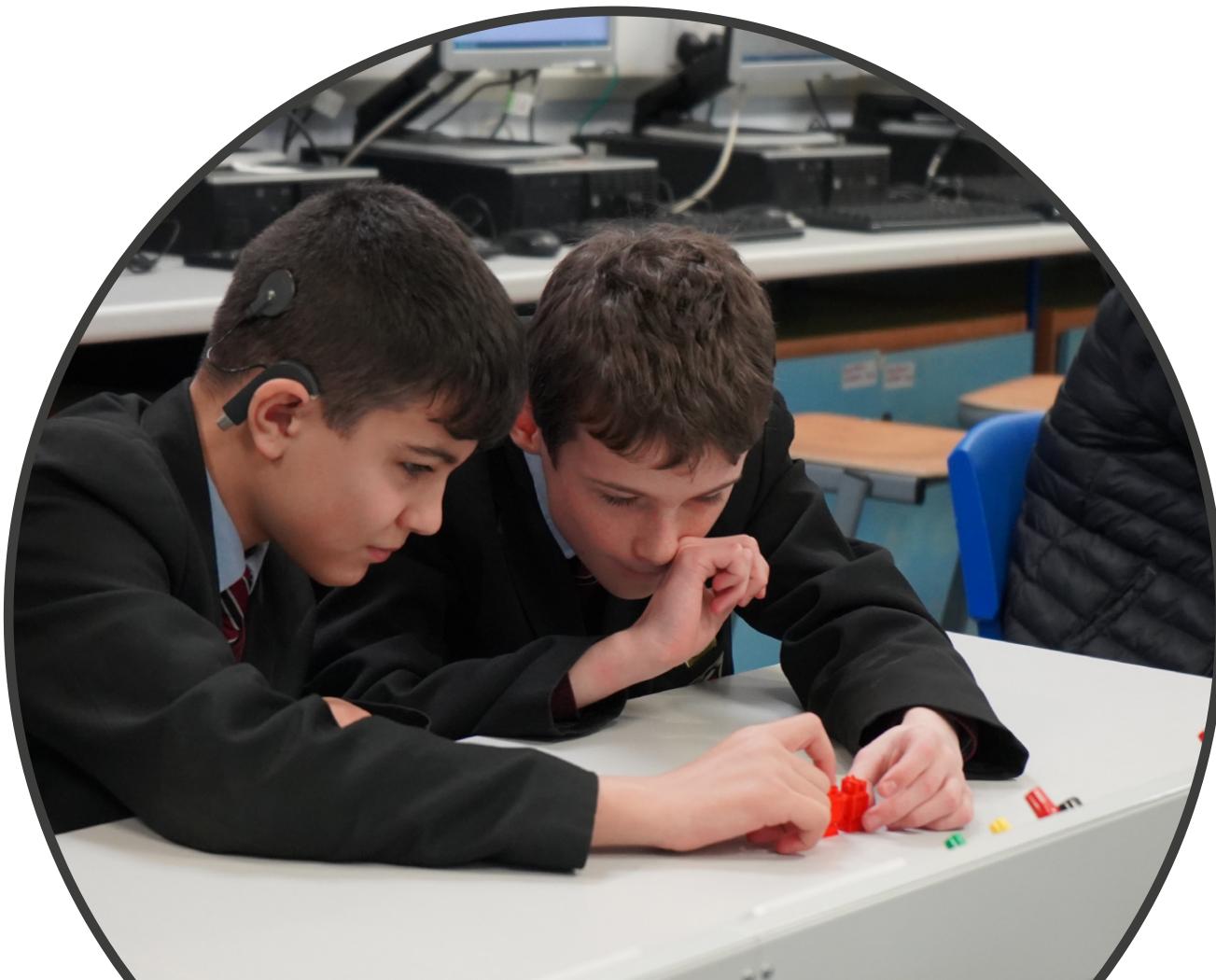


My thoughts....

"The #InspiringLancashire project has had a substantial commitment by CREATE Education and BAE Systems to enable schools across Lancashire to include 3D additive manufacturing in the curriculum with a hands on approach and 3D printer to complement the learning of CAD/CAM."

"The knowledge unlocked by the additive manufacturing process enables me to deliver the curriculum in full and this additional programme provides me with the training and support that gives the capacity to include KS3 which both prepares and educates the pupils as part of my 5 year plan for technology."

"The CREATE team are producing excellent resources with first class support to assist teachers in the delivery of these future digital skills."



Video Links

Neil Hodgson (St Augustine's Roman Catholic High School)

<https://www.youtube.com/watch?v=j9vDVywyvXM&t=20s>

St Augustine's Roman Catholic High School - Student workshop day

<https://www.youtube.com/watch?v=NILxgTU9WRk&t=103s>





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