



Digital Catapult

Impact Report

Year 1

April 25 - March 26

CATAPULT
Digital

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Impact Highlights

During this first year of the partnership, the **North East Pathways to Employment** programme was established as an opportunity for young people in the region to learn more about deep technologies, meet industry professionals and develop important employability skills.

The programme is designed to encourage students to take part in multiple interventions with the hope that this will increase their aspirations and their understanding of STEM careers.

563

Young People Reached

Schools Involved

Castle View Enterprise Academy

Academy 360

Thornhill Academy

Excelsior Academy

Seaton Valley High School

Demographic Data:

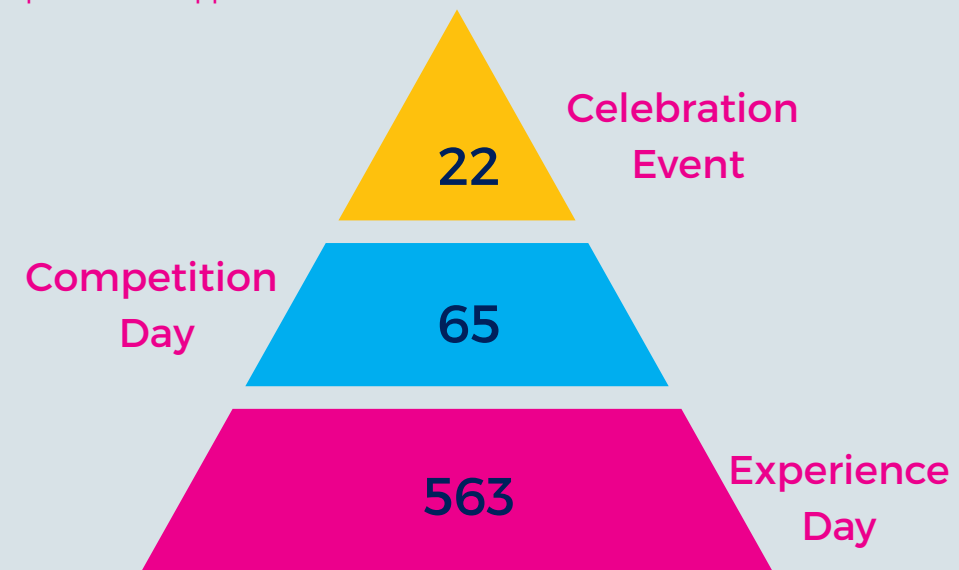
*Please note that demographic data is based off of 3/5 schools filling out the data form.

Data collection from 323 students:

- 58% of students are from ethnic minority backgrounds
- 2 students have a declared disability
- 60% of students qualify for free school meals
- 54% of students are female
- 4 students have sole total student carers or shared responsibility for the care of a relative

Student Engagement:

The graphic below shows the number of students which attended each activity this year, with multiple students taking part in all 3 opportunities.



Challenger Experience Day

Session Overview:

Year 8–9 pupils took part in a hands-on, face-to-face Digital Catapult Challenger Experience Day, exploring the exciting world of immersive technologies and virtual reality. Using VR headsets and laptops provided by Digital Catapult, they discovered how emerging technologies are shaping the future and the role they can play in addressing real-world challenges such as sustainability.

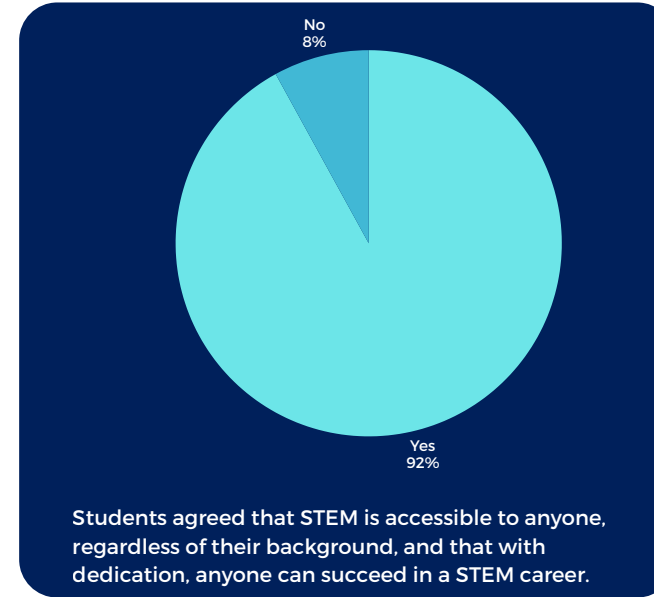
Working collaboratively in teams, pupils designed and built their own immersive virtual environments using Horizon Worlds. Throughout the challenge, they developed creativity, communication, problem-solving, and teamwork skills while bringing their ideas to life in a virtual setting.

The session also included a competitive element, encouraging learners to refine and present their solutions. Winning teams got the opportunity to take part in the North East Pathways to Employment Competition Day, where they continued developing their ideas and competed for a spot at the celebration event taking place at Digital Catapult's Advanced Media Production Studio.

Throughout the session, learners gained insight into the wide range of careers linked to immersive technologies, digital innovation, and the wider STEM sector, helping them to understand the pathways available to them in the future.

“EVERYTHING WAS AMAZING”

Student Feedback:



91 %
of students feel that they understand more about STEM topics after the session

86 %
of students agreed that the session helped them to understand how STEM is used in real life

Challenger student thoughts when asked “What was your favourite part of the workshop?”

“When I was on the virtual VR it was very interesting.”

“Drawing and designing the futuristic school on paper. Fun to do and expanded my imagination when drawing a futuristic school.”

“My favourite part of today was probably the school challenge and the team work skills. I liked how it was a competition with a prize”

“Doing the coding for the robot because it was fun seeing it move and helped me to learn about coding more!”

“I enjoyed the creative aspect of this learning opportunity including the Virtual Reality headset. Thank you. Sincerely.”

Challenger Experience Day

Teacher Feedback:

100 %

of teachers said that the session sparked students' curiosity in STEM

100 %

of teachers said that the session effectively promoted diverse STEM career pathways

100 %

of teachers said they were very likely to recommend the session to other teachers

Teacher thoughts when asked "How important are programmes like this for your school's STEM goals?"

"Amazing at allowing students to see how STEM subjects are used in 'real jobs'. Loved using the tech e.g. VR headsets. Great to have reps from STEM organisations working with students in the classroom."

"Great for meeting Gatsby Benchmark 5. Confidence booster for students from all academic levels. Opportunity for students to experience new forms of technology and apply it to unfamiliar situations. Develop problem solving skills."



North East Pathways to Employment Competition Day



Student Quotes:

"I have really enjoyed the whole day, I think it has been good for me. I have definitely got more confident and feel more able to work with new people."

"I enjoyed using the robot most as it was really fun and creative. I especially love the freedom they gave us to explore the robot and the little task with it."

Event Overview:

During the competition day students took on a challenge to design a VR game, training service or tourism attraction themed around the Artemis II launch that was in the news at the time.

Students worked in teams to create marketing materials, code a Sphero robot to represent the journey of their moon lander and create a presentation to give to industry volunteers about their 'business'. Volunteers joined the event from Accenture, Digital Safety CIC, On Path Energy, Sir Robert McAlpine and Enigma.

The teams had to use creativity, resilience, confidence, innovation and teamwork to succeed in the challenge and win the opportunity to move forward to the celebration event.

As well as the challenge, students engaged enthusiastically with a STEM Q+A panel and enjoyed being supported throughout the day by industry volunteers that they could discuss their ideas with.

Students left the session with a deeper understanding of new emerging tech and how businesses use tech to support their development. They also gained more information on the world of STEM beyond the school curriculum.

Industry volunteer from On Path Energy:

"We both thoroughly enjoyed the day and felt it was an engaging and effective way to inspire the children and get them excited about the possibility of pursuing careers in STEM."

"It was a genuine pleasure speaking with them at the tables about our own career journeys, sharing our experiences, and offering encouragement as they started to think about their own future career pathways. They had so many questions which was brilliant."

Celebration Event



Event Overview:

Students who won the challenge at the North East Pathways to Employment Competition Day were invited to Digital Catapult's Advanced Media Production Studio as a celebration of their achievement.

Students engaged with a carousel of tech activities that are used in a mixture of professions which included using VR head sets, stage movie sets, professional camera work, lighting and set design.

Students were able to better understand the role technology has in the creative industry which surprised the students. Throughout the day, we saw students gain more confidence in the tech they were using.



Student from Castle View Academy

"The day at Digital Catapult has been amazing. It's been so good seeing how everything comes together. I've loved learning about the combination of art and design and technology and physics that all come together in this kind of environment."

"It's definitely opened my eyes to other opportunities when I've been thinking about career options. I definitely didn't know how much art is involved in this tech – I've always wanted to go into art, but now I'd like to learn more about computing and tech as well so that I can combine those skills. Today has really helped me to see just how many careers are out there and how many people are involved in the tech industry."

Teacher from Castle View Enterprise Academy

"From the Challenger, the university day, and the visit to Digital Catapult, the content has been amazing. I've been impressed with how good the sessions have been while also feeling really chilled so the kids can just enjoy the activities. I've noticed how inclusive the whole programme has been, with an even playing field for all of the schools. We've really enjoyed being involved."

Testimonials

Eve - student at Castle View Academy

Any specific skills you have gained or improved?

"I feel I have learnt a lot about team working and more about STEM jobs. I feel the day has really helped me as I like the technology side of STEM. I definitely have better teamworking skills and more confidence."

What advice would you give to other young people considering a career within STEM?

"Be open minded there are so many options. Ask questions and try any projects or opportunities that are offered to you."

Do you think there is enough diversity and inclusivity in STEM subjects/fields?

"I think it is open to everyone but there needs to be more things like this, to help people know about what is available. I think the hardest part is for young people to understand how they can fit in and how their skills and interest match. I think so much seems too big or too complicated to understand."

Aaliyah - student at Academy 360

Any specific skills you have gained or improved?

"I have learnt more about working with others and how to adapt to a diverse team with different ideas. For example, we had to decide together what the game itself would be about and the way its introduced. We all had different ideas but we were able to find one that made us all happy."

Has the experience helped you in decide on a career path? If so, how?

"It makes me more determined to pursue engineering in STEM and maybe look more into building and advance my math skills. Maths is really important in STEM so I will need a high GCSE score for that."

Kvitka - student at Seaton Valley High School

What area of STEM are you interested in?

"Science, I like all science. Chemistry and biology. Not so much physics. Making life better, making things better for us. I want to help the world be healthier and better for us all."

What advice would you give to other young people considering a career within STEM?

"Keep going learning the basics can be boring and hard work. But it gets more interesting as you learn more and can apply the basics to more challenging and fun tasks"

Employer Engagement

One of the aims of the North East Pathways to Employment programme is to establish local industry connections, get them involved in supporting local young talent and build a movement of collaboration in the area. By working together with industry, the mission is to create a regional hub of activity in the North East, with Industrial Cadets bringing these opportunities together to create an intentional and valuable pathway of quality outreach in the region.

In the first year of the partnership there have been many conversations with industry, the local authority and other organisations in the area which led to two successful employer roundtable events. These events were an opportunity to hear feedback on our aims and intentions, take on board the struggles which local industry are having with talent recruitment and to brainstorm ideas on how collaboration could equal success.

Summary of roundtable learnings:

- Organisations are open to collaboration but there needs to be an overarching element which brings it all together - some discussion that Industrial Cadets could be that glue.
- Importance of multiple interventions starting at primary school and focused on key fundamental skills.

Year 1 Engaged Industries:

The organisations below have either been involved in a roundtable event and/or have supported as a volunteer, or have an activity accredited.

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|----------------------|---------------------------------|---|
| • Enigma | • North East Combined Authority | • Boldyn Networks |
| • Sir Rober McAlpine | • Sunderland City Council | • North East Raising Aspiration Partnership (NERAP) |
| • Digital Safety CIC | • Alt Labs | • Nissan |
| • Accenture | | • CPI |
| • On Path Energy | | |



Industrial Cadets Accredited Programmes

Through this partnership with Digital Catapult, within the first year, EDT & Industrial Cadets have been able to accredit two excellent programmes. These activities will now be a part of the North East pathways to Employment and will be an additional opportunity for participating students to take part in, furthering their skill development and insight into STEM careers.



