

TECHFEST 2021 PROGRAMME REVIEW



TECHFEST

Aberdeen and North-East Scotland's
Festival of Science, Technology,
Engineering & Mathematics
www.techfest.org.uk

digital



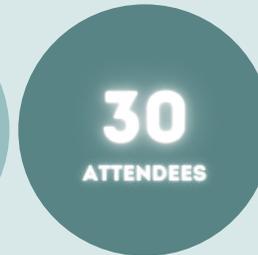
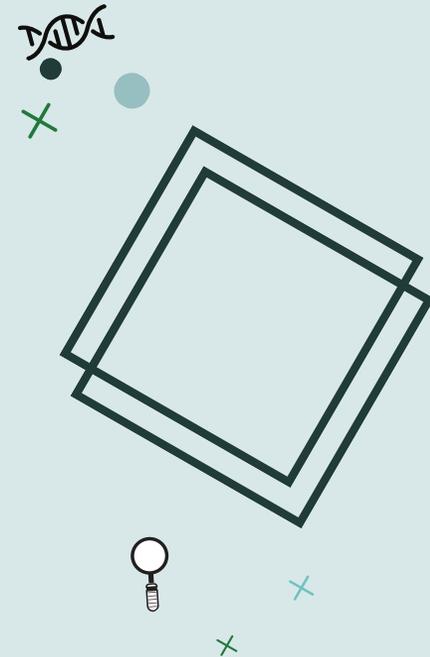
As is the case with so many endeavours over the last two years, TechFest 2021 has been a little different. The ongoing pandemic has meant we were not able to run most of our events, including our 28th annual flagship festival, in the same way as in the past so this year we continued the trend from 2020 and stayed digital.

Digital events have come with a new set of challenges and have been a learning curve for the whole team, but we are pleased to be able to report lots of positive outcomes from TechFest 2021, including the chance to get back to running some in person events.

Cyber Security Basics

As the TechFest team returned back from the New Year we were delighted to host a Cybersecurity event with Converged Communication Solutions. The event took place during CyberScotland week and was aimed towards charities in the North-east to better protect themselves against online crime.

As organisations have transitioned to remote working and are relying on digital communication more than ever, many employees and volunteers have fallen victim to cyber threats. Working together, TechFest and Converged aimed to bring an entry level understanding to those at the start of their cyber journey. Topics covered included: how cyber security affects an organisation, why cyber criminals target charities, what the different types of attacks are and how individuals can identify risks. The tech specialists simplified common IT and cyber jargon as well as explaining techniques used by hackers, such as social engineering, which pieces together information from social media profiles in order to access your personal data and hack into accounts.



70% of people who booked attended the event which is higher than average drop off for digital events.

[CLICK HERE FOR THE FULL REPORT](#)

NASA in Aberdeen: Humans Exploring Mars

We held an exciting online talk that explored the experiences of the Mars pioneering teams, bringing the cutting edge of the greatest space race of our time right into our audiences' own homes.

Joined by Tim Browett of the Institute of Physics Scotland, an experienced public speaker, teacher and trainer of physics and astronomy. He has delivered talks and workshops for the National Space Academy, the Association for Science Education, Aberdeen Astronomical Society, Robert Gordon's College and many others. For his education and public engagement work he was awarded the Sir Patrick Moore medal in 2017 by the Royal Astronomical Society and is a proud and dedicated science geek.



As part of Caithness Science Festival we produced 3 brand new digital workshops



Dive into the wonderful world of genetics! Learn about DNA, the marvellous molecule that contains the instructions for all life on earth! You can even try your hand at translating some DNA sequences to find the hidden meaning. Find out what your DNA says about you!



Growing tired of going on the same daily walk? Need to add in more excitement? Well, why not put on your investigators hat and find out how much biodiversity is just outside your door! Plus, take part in some fun DIY projects to make your outdoor area even more wildlife friendly!



Put your problem-solving skills to the test and see if you can crack the code! You'll learn about different types of codes and ciphers as well as creating your own code to send your own secret messages. Will you be able to get a coded message to TechFest's team of secret agents before it's too late?!

APRIL

Discovery Day: Machines of the Future

TechFest, in collaboration with the British Science Association (BSA) ran a fantastic opportunity for a limited number of schools to get involved with an entirely digital Discovery Day.

The Discovery Day project was aimed at pupils from P6 up to S2. Teachers were trained virtually through the online platform Zoom. This session allowed teachers an insight into how to run the session and begin to set plans for the day.

This was a great project to introduce pupils at an early age to machine learning which is something used in everyday life and something pupils will come across frequently. This topic is becoming increasingly more used in many different sectors such as healthcare, education, transport and construction, therefore pupils one day may go on to work with machine learning and this project gives a fun, exciting way to look into the topic.

3
SCHOOLS

556
STUDENTS

5 HOUR
PROJECT

3
PROJECTS
ONE
CHALLENGE



FOR FULL REPORT GO [HERE.](#)

For Inverness Science Festival we provided 3 of our digital workshops that was available for the duration of the festival.



NextGen Conference

TechFest was thrilled to be part of the NextGen Energy conference presented by Energy Voice!

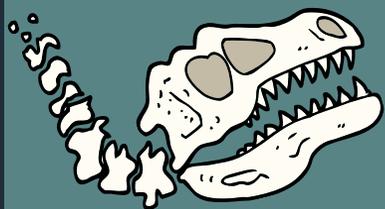
The energy workforce of the future will look very different. What are the specific jobs, skills and working patterns that will power the future of energy? What does digitalisation and the energy transition mean for the current workforce? How does the energy sector attract, educate and retain the next generation of talent? NexGen Energy addressed these questions in two panel sessions examining how we educate, upskill and retrain the workforce in respect of both the energy transition and the future of oil & gas in the North Sea and beyond.

[CLICK HERE TO WATCH THE CONFERENCE](#)

MAY

EARLY YEARS AND PRIMARY PROGRAMME

MAY 10 - MAY 14
2021



Our programme of events for primary and early years was fully digital and was split into three categories: Live, Touring and On Demand. All of these events were free and were enjoyed from the comfort of the classroom.

Live

As requested by teachers, the Live Events took place on Google Meet everyday in the morning and afternoon. .

Touring

We had a range of resources from trusted providers that everyone could book through TechFest and complete at a time that suited them.

On Demand

We were offering schools access to TechFest's catalogue of festival activities which were accessed whenever was most convenient for schools.

RESULTS

5
DAYS

14
EVENTS

435
CLASSES

10591
PUPILS

468
ON TOUR

CLICK [HERE](#) FOR FEEDBACK

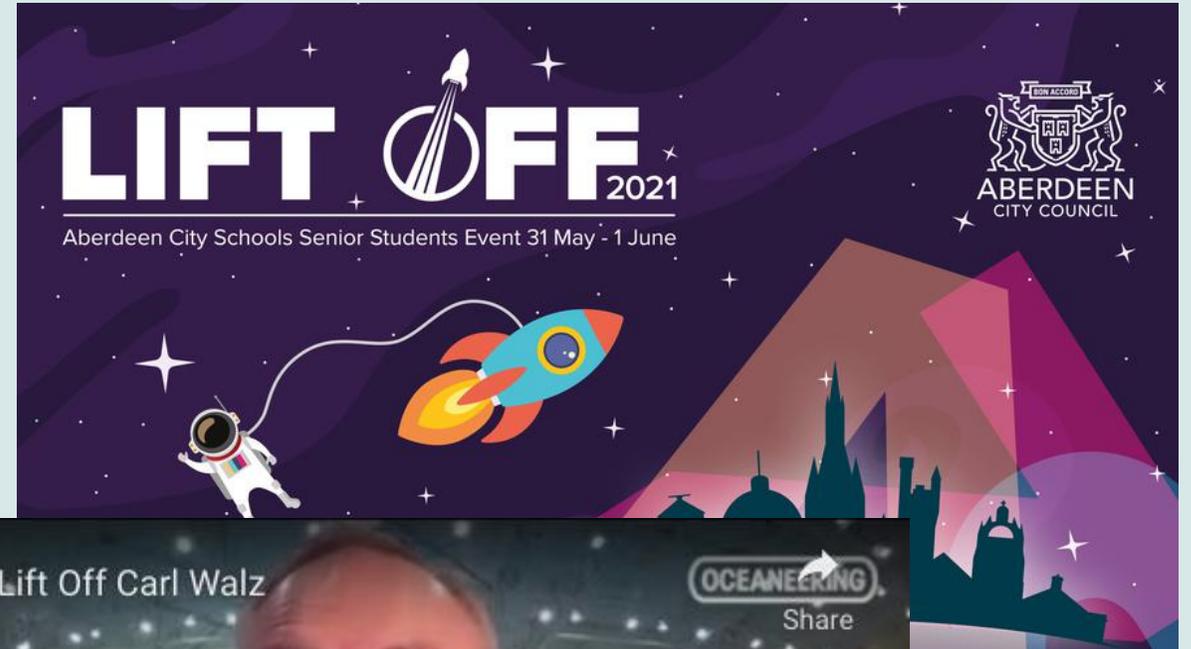
Lift Off

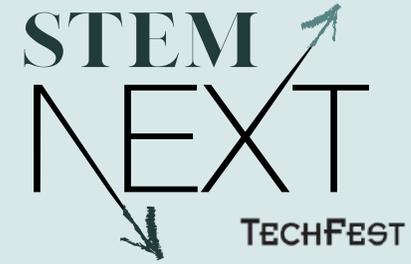
In May 2021 TechFest collaborated with Aberdeen City Council to deliver "Lift Off", an event focused on hope, aspiration, and employment for the future, aims to change the narrative around the young people's future skills and jobs opportunities, and encourage them to aim for the stars.

During the 2 day event, aimed at S5-S6, our very own Sarah Chew delivered a talk designed to get students to focus on their skillset. TechFest was also instrumental in facilitating the talk from key-note speaker, Carl Walz, in which he drew comparisons between his experiences as an astronaut and the challenges faced by young people during multiple lockdowns.

As well as his live key-note appearance, Carl took the time post event to answer questions from students across the city.

This event was part of the Young Person Guarantee commitment to ensure every 16-24-year-old in Aberdeen has access to a place in education, training, employment or volunteering





STEM Next - An Essay Competition that had no subject pre-requisites and was not purely STEM based. There were three potential essay category's to choose (Energy Transition, Medicine & Life Sciences, Technology & Computer Sciences) and within each category there were a diverse range of potential essay topics, with something to suit every interest! This was a solo project that required independent research and writing.

The essay competition was open to all 16 - 18 year olds across the UK, and there was no limit to how many pupils could compete from each school.

The STEM Next Essay Competition had 90 students sign up from across the UK. The competition launched on 03/05/21, so as to not interfere with the students exams. The students then had ample time over the summer to work on their essays. During this time, the students were supported through a series of live webinars and online resources. The students essay deadline was 12/10/21, and at this point the essay was distributed round our panel of volunteer assessors, and the finalists were selected. STEM Next Finale was hosted by North Sound One's Lauren Mitchel.

STEM NEXT LAUNCH RESULTS



FOR FULL REPORT GO [HERE](#).



RESULTS



In April 2021 we were approached by Aberdeen City Council to take part in their Summer of Play scheme which offers bookable activity sessions throughout the summer holidays.

TechFest developed a programme of events called Sociable Science, specifically following the feedback received from families, and in discussion with chief education officer, Eleanor Sheppard.

The aim of Sociable Science is to engage all ages in science activities that are done in conversation utilising teamwork, creativity and most of all fun while learning. Each activity is designed to be repeated at home with our audiences being encouraged to share what they have learnt with others. Additional resources included YouTube videos and handouts to support future learning and exploration.

We took the Programme out to 5 locations across Aberdeen City, these were chosen by the City Council as being in areas which would most benefit from the play scheme.

FOR FULL REPORT GO [HERE](#).



Following the success of Sociable Science at ACC's Summer of Play programme we felt it was only fair to take Sociable Science to Aberdeenshire too, where we enjoyed some very busy sessions.

Apart from two days when it was torrential rain, we held our sessions outside in the school playgrounds and play parks as we felt people were more comfortable with this, we also wore masks and asked that attending adults did as well, and kept socially distanced with plenty of hand sanitiser and cleaning products available for cleaning in between families.

We aimed to create a diverse and interesting programme of activities which could be replicated at home, these also linked to the CREST Award Scheme run by the British Science Association and attendees were given information on how to complete and apply for one of the awards.

RESULTS



FOR FULL REPORT GO [HERE](#).



STEM in the Installation Ph4 is a project for teams of S6 pupils (max of 6 pupils per team). It is a three-month project that this year was entirely digital. The project focusses on how the Energy Industry is transitioning to reduce carbon emissions as much as possible, as part of the global movement towards net zero. It is the aspiration for TechFest to reflect an accurate depiction of the energy transition across all our programmes.

Inspired by CNOOC Internationals Buzzard Platform, students were challenged to develop a proposal to install and connect an offshore wind farm to the facility, which would generate power for the installation and reduce the amount of gas import required to provide electricity. This was a challenging project that tested pupils' skills and required teamwork, independent research and good project management in order to successfully complete the report.



**STEM in the Installation 2021 Winners:
Team DCART From Robert Gordon's
College**

FOR FULL REPORT GO [HERE](#).



Having produced a vast amount of digital content throughout 2021, we were able to provide Orkney Science Festival with a range of activities to add to their online offering.



ABERDEEN
CITY COUNCIL



Tour of Britain

To promote TechFest to a wider audience, we took part in the Aberdeen City and Aberdeenshire Councils' Tour of Britain event which was based at the beach in Aberdeen in September. This proved popular with the public and there were a wide variety of activities onsite as well as the final stage of the Cycle Race.

200
PARTICIPANTS





2021 marked the 100th anniversary of the discovery of insulin. To celebrate the leaps in diabetes treatment and care TechFest has collaborated with Explorathon* 2021 where TechFest delivered the following projects:

- 1) Schools events with the Rowett Institute
- 2) TechFest Talks, a podcast by students for students, Explorathon edition
- 3) A journey Through Diabetes

RESULTS

SCHOOLS EVENTS



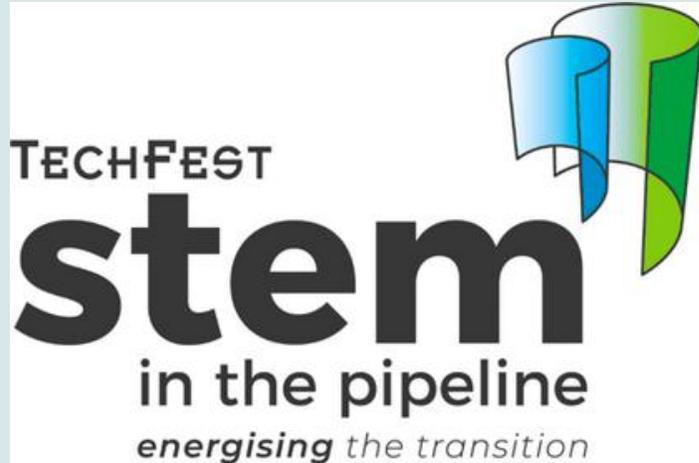
TECHFEST TALKS



A JOURNEY THROUGH DIABETES



FOR FULL REPORT GO [HERE](#).



STEM in the Pipeline; Energising the Transition is one of TechFest's key events across our annual programme. This event is aimed at secondary school pupils aged 17-18 and was devised to give them an insight into the Energy Industry.

STEM in the pipeline; Energising the Transition is split into 3 parts: a virtual Project Launch Day, a 3 month period of independent project work at school and a Presentation Day, which this year was held online. Each part of the process allows the students to advance their knowledge of STEM subjects whilst encouraging them to develop both their personal and teamworking skills.

The aim of the project is to produce a field development plan for 'The STEM Oil Field', in the form of a report. The report is then to be presented to a panel of industry professionals, acting as judges, at the presentation day where awards are given to the teams based on the panel's assessment of all the projects.



**Oil & Gas Authority's Lowest Emission Project:
Banchory Academy**

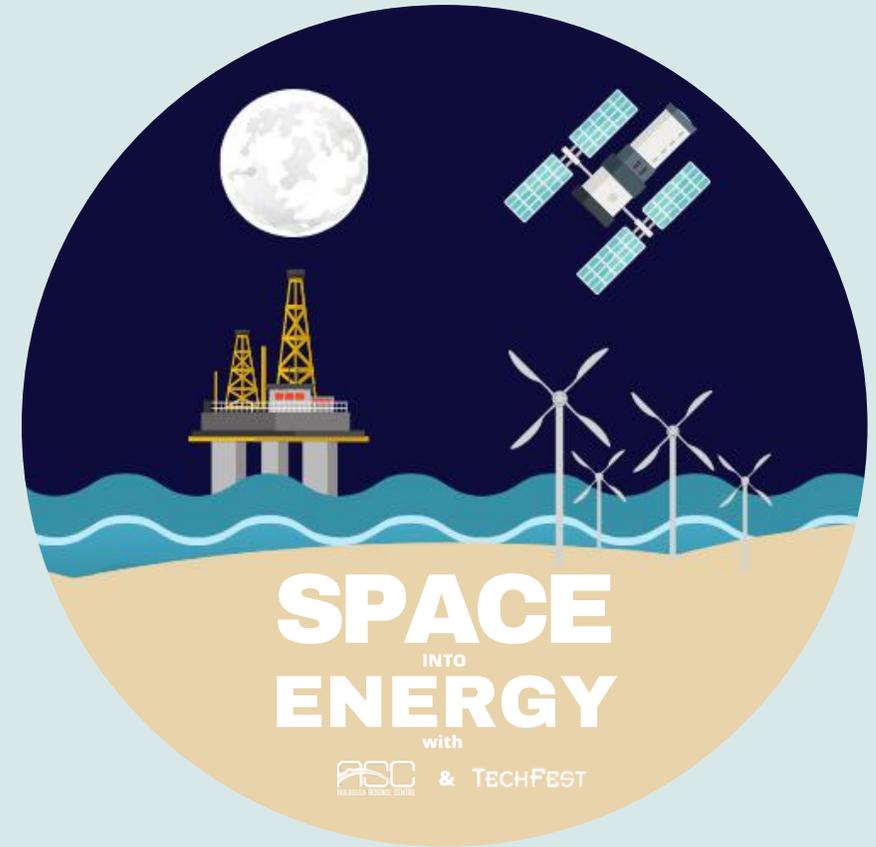
FOR FULL REPORT GO [HERE](#).

Space into Energy

A collaboration between Aberdeen Science Centre and TechFest, supported by the Institute of Physics (IOP), the 'Space into Energy' programme gives young people a glimpse into the inner workings of these exciting fields and how the skill sets required for each sector often overlap.

This new programme was launched with Aberdeen Science Centre's Space Cadet week, running in the October holidays, which proved to be very popular, with pupils attending from across Aberdeen city and shire.

This programme is ongoing, with many more events planned for 2022, including a touring workshop featuring insights from industry experts, an on demand workshop developed with Carl Walz, and a Space into Energy focused series for the TechFest Talks podcast



CLICK [HERE](#) TO READ THE SPONSORS AND SUPPORTERS DOCUMENT



STEM in the park was delivered in 5 parks accross Aberdeen, with TechFest staff setting up varous activites for all ages to engage in STEM activities that utilise teamwork, creativity and having fun while learning

CLICK [HERE](#) TO READ THE FULL REPORT

ATTENDANCE



SOCIAL MEDIA

The programme was advertised via TechFest's social media platforms. With 1,433 engagment across our social media platforms this likely to lead to an increase interest in TechFest and STEM in the Park.

FEEDBACK

TechFest received a number of highly positive feedback comments from the children and parents who attended across the 5 sessions.

Public Programme 2021 and Schools Programme

For the second year in a row we ran a successful online public programme with an accompanying strand for secondary schools. Despite the demand for digital content declining as in person events started to open back up, we still saw good attendance for 2021.

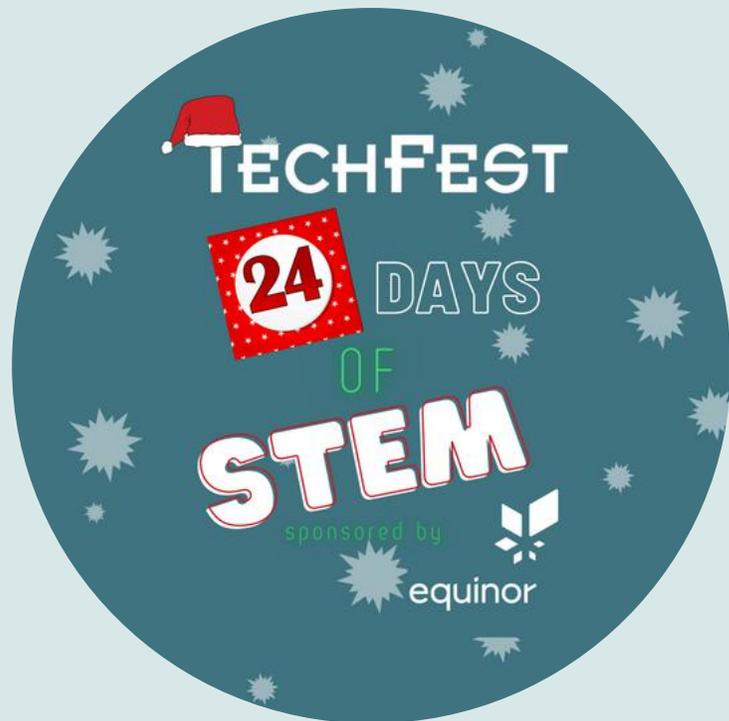
Alongside the digital festival, 2 members of TechFest helped deliver an SDS programme, **Classroom Clash**, in person in a Perth high school where we had the opportunity to interact with 12 classes over 2 days.

22
EVENTS

414
LOG INS

1200
ATTENDEES





Launching on 1st December and running the length of advent, we created an interactive calendar designed for use in the classroom and at home. Content included jokes, videos, and info cards. We were pleased that the University of Aberdeen chose to showcase and recommend our Advent Calendar within their own Christmas content. Engagement with the calendar was high, encouraging us to expand this idea into other calendar events throughout the year for 2022.

Based on bookings and website clicks, we estimate that 24 Days of STEM reached around 8000 people!

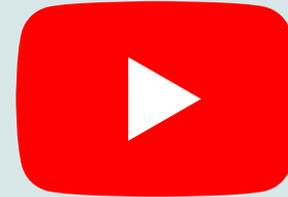




The Mock COP 26 event was the last stop of The DGA Roadshow 2021 that travelled across the UK. It took place in October at the Aberdeen Science Centre's Shell Learning Zone.

Pupils from Hazlehead Academy and Old Machar Academy then got the opportunity in December 2021 to take on the role of world leaders and climate experts at a mock COP26 event.

Taking place in the Town and County Hall in Aberdeen, the event explained the aims and objectives of COP26 to the students, emphasising how the energy transition is an integral part of the discussions on climate change and how as the next generation, youngsters have a unique role to influence and persuade world leaders to make important changes.



[Click here to watch the pupils take part in MockCOP 26](#)

FOR FULL REPORT GO [HERE](#).

RESULTS

2

SESSIONS

2

SCHOOLS

70

STUDENTS



Launched in 2021 as a 'podcast by students for students, TechFest Talks combines interviews with subject matter experts and the unique perspective of the young people hosting the podcast. TechFest Talks gives students from all over the UK the opportunity to share knowledge, learn new skills and bring science and technology-based industries to life in a way that only they can.

Beginning as a collaboration with Explorathon to mark 100 years of diabetes research, we quickly evolved the podcast to over a range of subjects and collaborations.

- Scottish Career's Week
- Sound
- Scottish Care
- Polar Explorar Antony Jinman
- Girls in Energy
- Space into Energy

Primary Outreach

Techfest offers a variety of outreach workshops suitable for primary schools and early years. All the workshops are led by experienced presenters with a teaching or science background and provide an excellent opportunity for pupils to engage in enjoyable and challenging activities



WEBSITE VISITORS



39,800

MOST VISITED PAGES

- 1** LANDING PAGE
- 2** STEM NEXT
- 3** FESTIVAL 2021



COUNTRY

	24,686
	4,574
	1,174
	1,114
	880

CHANNELS

direct	17,006
organic	11,336
social media	6,825
referral	4,615
email	18

SOCIAL MEDIA ENGAGEMENT

- 169** new followers
- 130** new page likes
- 75** new followers
- 74** new followers
- 50** new subscribers

TOTAL NUMBER OF SOCIAL MEDIA
AUDIENCE BY END OF 2021

5360

PROGRAMMES TO LOOK FORWARD TO IN 2022

For years TechFest has been dedicated to not only improve existing projects, but also to develop new and exciting projects and 2022 is no exception as we're working on a couple of new superb projects! So far we managed to deliver our workshops at SubSea Expo 2022 event as part of OPITO's My Energy Future Live programme, MockCop26 event, Discovery Day at ASC event, as well as to deliver programmes such as Mathematics Masterclasses, STEM in the Park and Sociable Science!

There are heaps of programmes we are looking forward to delivering this year!

NEW PROJECTS



A FUTURE HIGHSTREET
SUPPORTED BY Bluewater

UPCOMING PROJECTS



FOR FULL PROGRAMME OVERVIEW GO [HERE](#).

*oh, did we mention that
as part of
Career Ready programme,
we're mentoring 2 students?*

