

TECHFEST STEM

into



Innovation

Pioneers of Progress

Teacher Planning Resource

DIGITAL WORKSHOP

SUPPORTED BY THE NCR FOUNDATION



NCR
FOUNDATION

If you have any queries regarding this Teacher Resource, please do not hesitate to get in touch with us

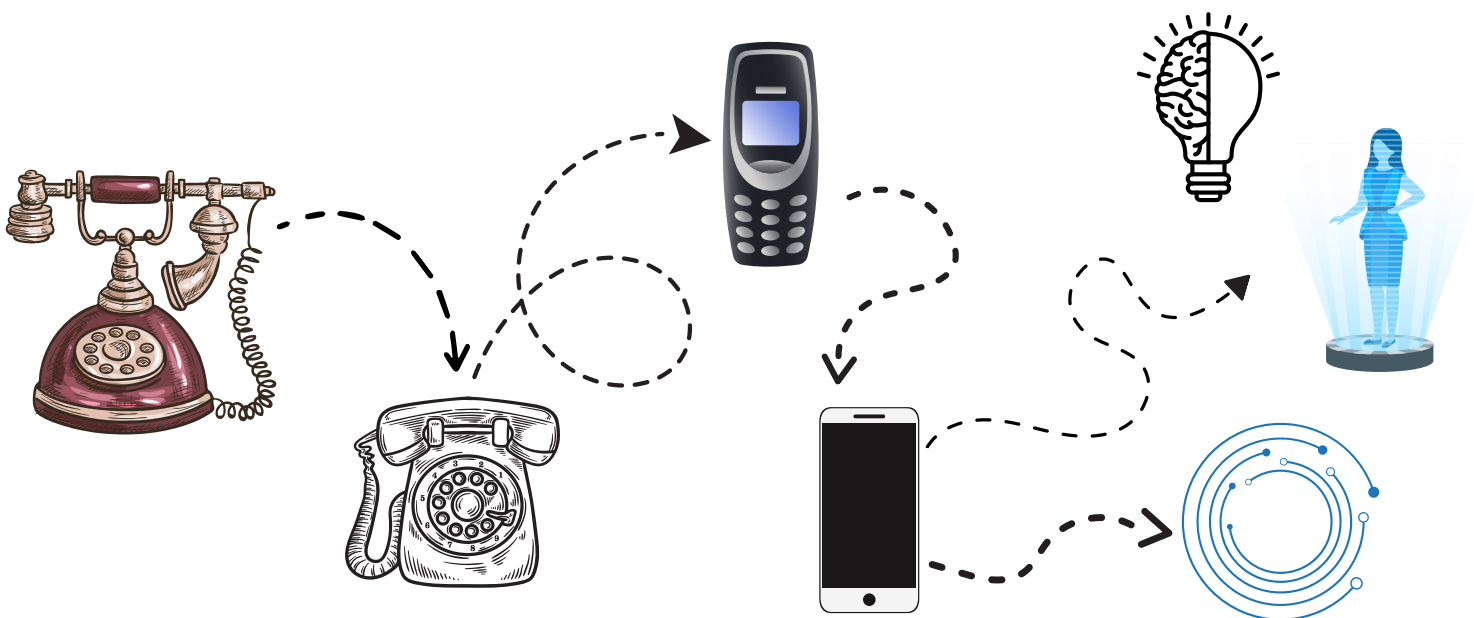
kirstycranna@techfest.org.uk or gabijablazyte@techfest.org.uk

STEM INTO INNOVATION - PIONEERS OF PROGRESS

OVERVIEW

This supported programme has been designed to enhance and support your teaching in the classroom of the topics of STEM into Innovation. This programme has been designed as a modular resource to allow for the best flexibility within the classroom setting. The project includes a case study example examining the topic of instant communication; something that we are all now very familiar with. We are delighted to showcase a variety of different industry professionals, making this an excellent way to access a variety of STEM careers.

This project prompts pupils to consider the impact of innovation on their daily life, and work in groups to consider what innovative solution may help them solve a novel problem. The flexibility of this project encourages creativity about how they approach the challenges. The challenges take the learner through the design process, and result in a prototype build of their chosen design.



Innovation and design are inherently underpinned by STEM subjects and this project will allow your pupils to get creative while understanding the many different aspects of Innovation.

STEM INTO INNOVATION -PIONEERS OF PROGRESS

BENEFITS & SUPPORT

This project has been developed with the learner experience at the centre, and provides resources for teachers and their students to explore the topic of STEM and Innovation at a pace that works for them. The video resources showcase a variety of people with diverse careers related to STEM and Innovation.

The resources will be live for the whole academic year (and future years) and although aimed at age groups S1-S2 can be used with any age. Towards the end of the academic year, we will send an evaluation that will gather some basic data to help us with our ongoing development of this project.



The CREST Awards scheme is the British Science Association's flagship programme for young people. CREST is a scheme that inspires young people to think and behave like scientists and engineers.

STEM into Innovation: Pioneers of Progress can be put towards achieving a CREST Discovery Award. Find out more about how you could use these activities to gain a CREST Award at bsa.sc/accredited-resource

To achieve the award students have to undertake roughly 5 hours of work, it is £3 per student and they will receive a CREST certificate.

In order to apply for the award all that is required from the students is to complete their discovery passport. This allows them to reflect on their learning and teachers can keep track of the work.

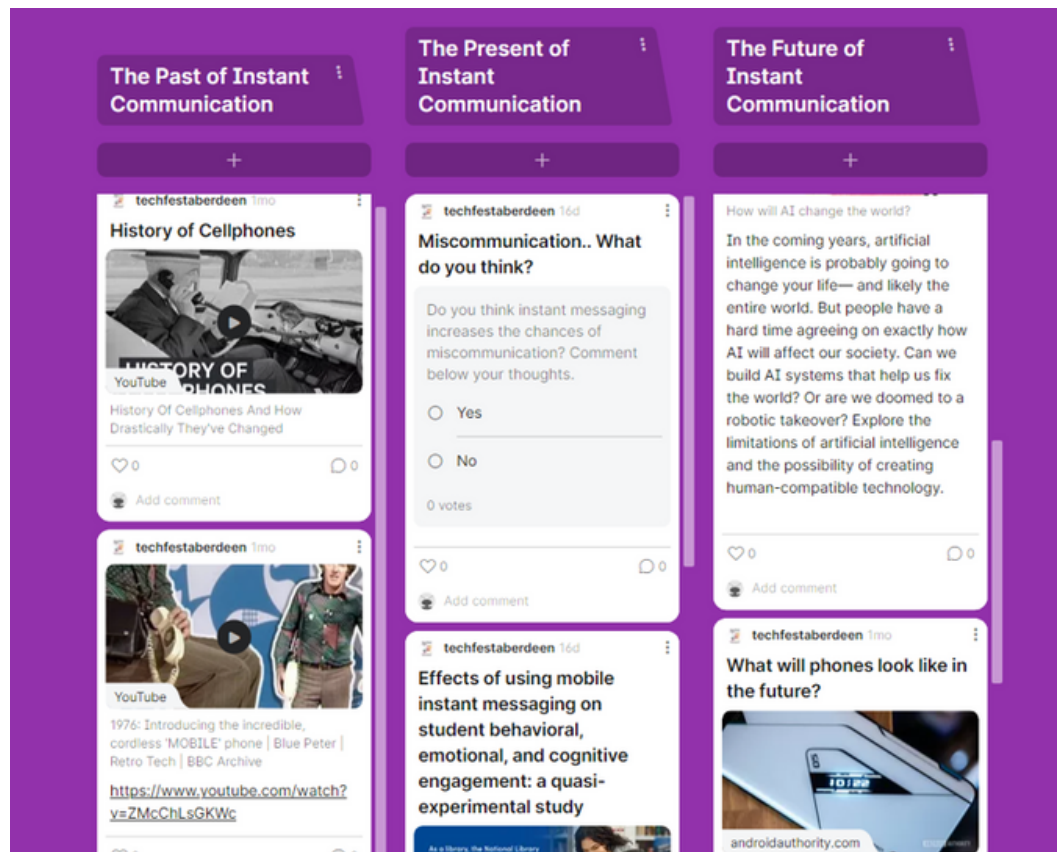
The CREST Regional Support Organisation for Scotland is TechFest. For advice about undertaking CREST Awards in Scotland, please contact Kirsty Cranna by email at kirstycranna@techfest.org.uk.



STEM INTO INNOVATION - PIONEERS OF PROGRESS

BENEFITS & SUPPORT

This project will have an active padlet (interactive bulletin board) that you can access throughout the duration of the project. This will be populated with extension activities, quizzes, videos and ideas for you and the learners to interact with.



To access this board, either scan or click on this QR code or visit the website. There is a printable QR code for use in the classroom as part of this resource pack.




STEM INTO INNOVATION - PIONEERS OF PROGRESS

RESOURCE OVERVIEW

Digital Activity Pack

A suite of activities has been designed in order to prompt your pupils to think creatively about the topic of innovation in STEM. These activities are designed to be used flexibly throughout your teaching, and there are suggested extension activities if you wish to extend the project further.

	The Past		The Present	The Future
	Episode 1 (part 1)	Episode 1 (part 2)	Episode 2	Episode 3
Video Interview 	✓	✓	✓	✓
Watch along Worksheet	✓	✓	✓	✓
Team challenge		✓	✓	✓
Maths Challenge		✓		

STEM INTO INNOVATION - PIONEERS OF PROGRESS

RESOURCE OVERVIEW

Digital Video Resources - Case Study

4 mini episodes; video interviews with industry experts discussing the past present and future of instant communication and how the concepts relate to innovation. All videos are between 14-17 minutes long.



Episode 1 (Part 1 & Part 2)

Aberdeen City Council Lead History Curator Jenny Brown is interviewed and delves into the past of instant communication, including old models of phones whilst giving us an overview of the history of instant communication.

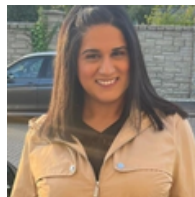


Jenny Brown



Episode 2

Join the National Robotarium's Industry and School Engagement Leads Blair Wilson and Sabaht Bashir as they are interviewed and discuss the technology we use each day to communicate.



Sabaht Bashir

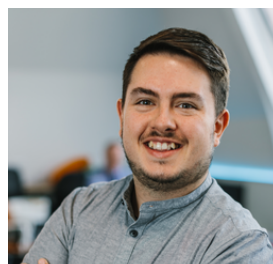


Blair Wilson



Episode 3

Edward Pollock, TechX Acceleration Manager is interviewed and discusses some pupil designs of future communication. In this episode we discuss the emerging technology and prompt pupils to imagine what the world of communication could look like one day.



Edward Pollock





To access this interactive board, either scan or click on this QR code.