'Bridging the Gap'

A LEVEL ICT

Preparation for Sixth Form ICT

Syllabus

https://www.cambridgeinternational.org/Images/554602-2022-2024-syllabus.pdf

Introduction

For those of you new to the subject or those of you that have taken the subject at GCSE, one of the fundamental skills for this course is to be able to use a wide range of different pieces of software. In addition to Spreadsheets and Databases that you may have seen before, the course introduces you to Video and Sound Editing, Bitmap and Vector Graphic Manipulation, Animation, and Programming For The Web Using JavaScript. The following resources are great starting points to develop a deeper understanding of how these different pieces of software work.

- Sound Editing Using Adobe Audition https://helpx.adobe.com/uk/audition/tutorials.html
- Video Editing Using Adobe Premiere Pro https://helpx.adobe.com/uk/premiere-pro/tutorials.html
- Bitmap Image Editing Using Adobe Photoshop https://helpx.adobe.com/uk/photoshop/tutorials.html
- Vector Image Editing Using Adobe Illustrator https://helpx.adobe.com/uk/illustrator/tutorials.html
- Animation Using Adobe Animate https://helpx.adobe.com/uk/animate/tutorials.html
- Programming For The Web Using JavaScript https://www.codecademy.com/learn/introduction-to-javascript
- w3schools has great additional examples to help you understand how different blocks of code work https://www.w3schools.com/js/

Broadening Your Horizons

Things To Watch

Watch this talk, from Dame Stephanie Shirley, which explains how she set up an all-female software empire under the name 'Steve'. Why do ambitious women have flat heads? TED Talk – Dame Stephanie Shirley
https://www.ted.com/talks/dame_stephanie_shirley_why_do_ambitious_women_have_flat_heads

Watch this talk on the impact that artificial intelligence and robotics will have on jobs in the future. The jobs we'll lose to machines - and the ones we won't TED Talk – Anthony Goldbloom
https://www.ted.com/talks/anthony_goldbloom_the_jobs_we_ll_lose_to_machines_and_the_ones_we_won_t?referrer=playlist-what_happens_when_the_robots_take_our_jobs#t-3590

Watch this talk from a successful start-up founder, where he explains the surprising result of his research. The single biggest reason why start-ups succeed TED Talk – Bill Gross
https://www.ted.com/talks/bill_gross_the_single_biggest_reason_why_start_ups_succeed?referrer=playlist-what_makes_businesses_work

Watch this talk which explores some of the philosophical ideas surrounding artificial intelligence. What happens when our computers are smarter than we are? TED Talk – Nick Bostrom
https://www.ted.com/talks/nick_bostrom_what_happens_when_our_computers_get_smarter_than_we_are?referrer=playlist-what_happens_when_the_robots_take_our_jobs

Things To Listen To

Listen to this radio interview with software pioneer Dame Stephanie Shirley. Life Scientific BBC Sounds https://www.bbc.co.uk/sounds/play/b05pmvl8

Listen to this radio programme which explores whether computers can beat humans at games. Seriously...Game over humans BBC Sounds https://www.bbc.co.uk/programmes/m0001qjj

Things To Read

Read this article about whether students should learn how to code or not – start a debate with friends about whether you agree or disagree! Teaching children coding is a waste of time The Telegraph https://www.telegraph.co.uk/education/2019/02/21/teaching-children-coding-waste-time-oecd-chief-says/

Read this article about the future of teaching in the world of AI. Intelligent machines will replace teachers in ten years The Independent https://www.independent.co.uk/news/education/education-news/intelligent-machines-replace-teachers-classroom-10-years-ai-robots-sir-anthony-sheldon-wellington-a7939931.html

Things To Try

Complete this course which provides an introduction to social media and marketing. Create a social media and marketing campaign Institute of Coding and the University of Leeds https://www.futurelearn.com/courses/create-a-social-media-marketing-campaign

Complete this course which explores how the way we work will change in a world of automation. The future of work - preparing for disruption Open Learning Campus https://www.edx.org/course/the-future-of-work-preparing-for-disruption-2