At the Open Academy we strive to ensure all students have the ability to use computational thinking, technology and creativity to enhance their learning and future life.

Students have access to a wide range of specialist IT equipment and software applications which support learning across all aspects of the curriculum. The department offers pupils the opportunity to develop their computing, creative and IT skills as well a range of transferable skills such as effective commination and logical thinking which are vital abilities in society today.

We pride ourselves in providing students with a wide range of engaging tasks in a positive and safe learning environment in order that students learn to be responsible and effective users of technology.

Key Stage 3 Computing

We have developed a curriculum across Key Stage 3 that follows the National Computing curriculum. It develops and challenges our students and includes but is not limited to: E-safety, sound editing, digital imaging using Adobe software. Desktop publishing, word processing, spreadsheet modelling and formal electronic communication using Microsoft Office. 2D/3D Animation using Alice/ Sketchup /Blender and both visual and text based programming in Scratch/Alice, MIT App Inventor and Small Basic/C# respectively.

Key Stage 4 Computer Science and IT

Within Key Stage 4, there are two courses available to all students to opt for. These qualifications are the BTEC Digital Information Technology and the AQA GCSE Computer Science and the BTEC Digital Information Technology. The former is a creative course exploring user interface (UI) with modern digital content, such as cloud computing and cyber security. We aim to draw upon the students' imagination and creativity in the design, production and refinement of a UI. By contrast the AQA GCSE Computer Science is a more mathematically grounded subject where students embark upon an exciting journey through programming and computer systems with an assignment in Year 11 involving students creating their own programs. Students learn the importance of computational thinking which underpins all computer systems as well as getting an appreciation for computer hardware.

Key Stage 5 Computer Science and IT

At Key Stage 5 there is again a split between Computing and ICT. In AQA GCE Computer Science the students push their understanding of computational thinking, programming and computer hardware further and will produce a substantial application in response to a client brief by using their programming skills over the two-year course. In the first and second year students will also take on on-screen exams based on programming skills and written exams. In OCR Technicals Level 3 ITon the other hand, our students progress through one examined unit which develop the students' understanding of the use of ICT in the world of business and work, followed by coursework units whereby students

will be able to express their creativity working toward developing digital solutions based on client briefs.

With the mix of computing and ICT options available within the Department, we believe that we offer every young person valuable skills which will equip them for a world where technological skills are paramount.

After school clubs on offer

Codeclub – Learn to code, open to all.

Project Refurb – Hardware meets software. What can you invent?

BAFTA Young Game Designer- Are you going to design and create the next big game? Find out.

All clubs run on a Wednesday from 3:15 to 4:45

Useful software tools (All free)

Scratch - https://scratch.mit.edu/

ALICE 3 - http://www.alice.org/

SmallBasic - http://smallbasic.com/

Sketchup - https://www.sketchup.com/

MIT App Inventor - http://appinventor.mit.edu/

Visual Studio Community Edition - https://imagine.microsoft.com/en-us/Catalog/Product/530

Independent Learning online resources

Year 7-11

www.yacapaca.com

www.samlearning.com

www.cram.com

www.bbc.co.uk/education

Year 10-11

YouTube Playlist CS Tutor – AQA – Paper 1 Theory