C&DA DEPARTMENT

THE TEAM

Computing & Digital Applications lessons are currently delivered by a core of three specialist teachers across the two campuses. Additionally, there are five technical support staff and a classroom and administrative assistant. All members of the team have access to continuing professional development opportunities, which are particularly important as the role of Computer Science and ICT in education constantly evolves and expands.

THE C&DA DEPARTMENT

On the Newport Pagnell campus our facilities consist of an extensive suite of well-equipped adjoining rooms running well-maintained and regularly upgraded Windows PCs on a fast and reliable Windows network. The Olney Campus has a dedicated Computing/ICT classroom with other computer rooms also available and smaller clusters of computers located in other parts of the site. There are over 1000 machines on our network including sets of lap-top computers that access the wireless network. The Sixth Form Centre has 40 computers for students to use in their private study sessions. Data projectors are used extensively throughout the school and there is widespread use of interactive whiteboards in the specialist Computing/ICT rooms as well as most other departments. We have also added flat screens and touchscreens as extra digital display in each C&DA teaching room. Every workstation on the network has broadband Internet access and every student and member of staff has a school-based email address. As we are running application software our site licenses include Adobe Creative Suite 6 including Fireworks, Dreamweaver, Flash and Photoshop for web design, animation and photo editing, alongside the Serif suite of programs. We have also made extensive use of Visual Studio's Visual Basic and Web Developer software across KS 4 and 5. For a number of years we have been developing our school VLE for independent learning access and course delivery, along with systems which allow easy scheduling of homework and content to create an online core resource for student learning. We are also a G Suite (Google Apps for Education) school and make use of Google Classroom and the collaborative benefits that this offers.

CURRICULUM

Our philosophy is to allow alternate pathways through KS3, 4 and 5 catering for the needs, abilities and aptitude of individual students. We have offered AQA Computing at A level for over 10 years now and have alongside this the option of taking Computer Science as a GCSE. In addition we currently provide BTEC Creative Digital Media Production for students who want to develop their creativity in Film / TV, Web Design, Multimedia and Animation.

We believe that students need a wide range of skills to take through into their KS4 subjects and beyond. These skills can include the development of an understanding of Computing and coding, but also include the creative use of ICT. Students in Years 7 and 8 have one hour a week of Computing and Digital Applications. In Year 9 those wanting to take the GCSE Computer Science can opt to do two lessons-a-week.

C & D A DEPARTMENT

Over the last few years we have developed strength in Computing delivery at all key stages. At KS3 this has been particularly expressed through games development projects in each year group progressing through GameMaker, Scratch and Kodu project work. The Head of Department is keen to build a strong team and train up non-specialists who are interested in teaching ICT at KS3.

To support the learning we have also developed the in-house production of video tutorials to supplement much of our project work, allowing open access to students to self-support and progress further in their independent learning, promoting greater differentiation. We have also introduced Computing Theory into KS3, focussing on Algorithmic Computational Thinking. We currently use a BBC Micro Emulator (BeebEm) to compare old computers from the 1980s with modern PCs and programming techniques.

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