Lady Manners School

ICT Department

**OVERVIEW OF THE DEPARTMENT**

In Years 7 to 9 we teach a blend of Computer Science, Digital Literacy and ICT. Our aim is to develop student confidence in the use of computers through hands-on experience of a wide range of software.

We have a good number of dedicated computer rooms that are well laid out and utilise desktop computers and wide screen monitors.

We are supported by a Network Manager and his dedicated and professional technicians. They provide us with a reliable, fast network that is regularly reviewed and up-dated. The school provides a good level of funds to ensure that computer rooms are refurbished with new hardware as needed to keep them reliable.

Positive relationships between students and staff lead to lessons which encourage students to be creative and challenge them to achieve their best.

Including the Curriculum Leader there are two full-time teachers and one part-time teacher in the department. Apart from the TLR post of the curriculum leader there is one other TLR post in the department.

Throughout school programming is taught using Python.

**THE CURRICULUM**

**Key Stage 3**

All students in Key Stage 3 have timetabled Computer Science/ICT lessons.

Years 7 and 9 have a one hour lesson each week and Year 8 has two one hour lessons.

Students are taught in all ability form groups in Years 7 and 8. In Year 9 students are banded, with two forms being used to derive two classes. One class covers Computer Science topics in more depth and the other predominately focusses on ICT subjects. This banding allows students to experience more of the topics they prefer, allowing them to make better informed judgements on their option choices at KS4 and to prepare them for these course should they choose them.

**Key Stage 4**

Computer Science and ICT courses are optional at KS4. Students can choose AQA GCSE Computer Science and/or Cambridge National in Creative iMedia Level 1 and 2 Certificate from OCR. Students have either 2 x 1 hour lessons in Y10 and 3 x 1 hour lessons in Y11 or 3 x 1 hour lessons in Y10 and 2 x 1 hour lessons in Y11.

**Cambridge National in Creative iMedia Level 1 and 2 Certificate**

This vocational qualification is aimed at creative learners with an interest in digital applications. The modules we have selected to study cover artwork and imaging and developing web products. The course suits students who are interested in further developing practical ICT skills. The course is consistently a very popular option choice and we have two classes in each of Years 10 and 11 studying this.

**AQA Computer Science GCSE**

Students develop knowledge of a range of computer science topics, including computer networks, cyber security, and computer systems and databases. Significant time is devoted to developing programming ability using Python 3. We are now using Repl.it, an online coding environment that allows students to code at home and school without the need to download and install their own IDE.

**Key Stage 5**

**Cambridge Technical Level 3 Introductory Diploma in ICT (Emerging Digital Practitioner Strand)**

A mixture of examination (3) and coursework (2) units this subject covers a wide range of IT related content. It covers the Fundamentals of ICT, Global Information systems, Virtual and Augmented Reality, Cyber Security and Mobile Technology.

**AQA Computer Science A Level**

Advances in computing are transforming the way we work. The course focuses on the knowledge, understanding and skills students need to progress to higher education and thrive in the work place. Computer Science enables students to acquire subject knowledge, programming skills and soft skills in computational thinking and problem solving.

### **FACILITIES AND SUPPORT**

**Computers**

The school has over 500 computers available for teaching and learning use. They are all networked and have Internet access over a 1Gb fibre-optic connection. All teaching rooms have at least one computer for teacher use with projector and whiteboard.

Specialist computer rooms are located around the school. There are five used predominately for delivery of Computer Science/ICT courses. These have 32+ desktop computers. Machines all have widescreen monitors and are replaced regularly when nearing the end of their useful life.

In addition there are computer facilities in:

* School Library (30 machines)
* Sixth form study area (30 machines)
* Learning Support (10 machines)
* Design Technology (30 machines)
* Music (20 machines)
* Media studies (10 machines)
* Vocational Centre (20 machines)

Two class set of 30 Windows laptops/Chromebooks are available for use by departments as needed. These utilise the school’s recently refurbished Wi-Fi system.

**Software**

Workstations are running Windows 10. These are rebuilt every 2 years to upgrade the operating system. Microsoft Outlook is used for staff and student email combined with an on-premises Exchange server.

DrawPlus, PhotoPlus and WebPlus from Serif are used extensively for graphical work in all years.

Microsoft Office 2019 is available on all PCs and students can download the software for free for use at home.

ABTutor is used in the ICT suites and on the mini-laptops to control and audit the student machines.

All teaching staff are provided with a school laptop. Staff can access school resources from home, using either FOLDR or through Remote Desktop.

School-wide printing is available via a ‘follow me’ printing system linked to ID cards.

**Learning Platform**

We make use of a Moodle implementation for our Virtual Learning Environment. This holds well-developed and resourced teaching material that is accessible in and out of school. The server is held at school.

**Internet Connectivity**

We have a 1Gbit internet connection providing excellent connectivity.

**Technical support**

The school has benefited greatly in its ICT development through the support of a highly experienced and skilled technical support team. Based in the ICT Support area we have two technicians, one for IT and one for Visual Aids and IT. The whole operation is managed by the school’s ICT Manager who has overall responsibility for the network and its associated hardware and software.

The school’s Information Services Officer has responsibility for the management of the school’s website and Learning Platform.

**Student Access**

Students use Foldr to access their school work from home.

During lockdown we made extensive use of Google for Education. From June 2020 we held remote lessons with pupils, with the teacher delivering live lessons to students.