

31.8 INFORMATION COMMUNICATION TECHNOLOGY (ICT) AT MAGDALEN COURT SCHOOL

Every child receives the opportunity to develop their ICT capability as outlined in the National Curriculum and to reach their full potential at Magdalen Court School. We recognise pupils need to be prepared for a society that is increasingly dominated by ICT applications. For this reason, pupils benefit from the Senior School's facilities and utilise ICT in all curricular areas as well as pursuing a dedicated programme of study in ICT. In these ways they develop the skills and confidence to benefit from technology in their daily lives and support their work across the curriculum. Pupils are encouraged to adopt a creative approach to their ICT work and to explore a range of collaborative technologies. Equally, they learn core skills such as word processing, spreadsheet modelling, compiling multimedia presentations and creating and manipulating databases.

Aims

It is the aim of Magdalen Court School:

- To provide all pupils with their National Curriculum entitlement in ICT.
- To develop children's individual ICT capability to the best of their ability – both in skills and understanding, as well as knowledge.
- To ensure children's ICT experiences are progressive, coherent and relevant as they move through our school.
- To apply their ICT skills and knowledge to their learning in other areas.
- To allow all staff and children to gain confidence in, and enjoyment from, the use of ICT.
- To equip pupils with confidence and capability to use ICT throughout their later life.
- To develop an awareness of the capabilities as well as the limitations of ICT.
- To recognize the potential, and deepen the awareness of the application and necessity of ICT in everyday life.
- To recognize the risks associated with ICT & how to manage these.
- To stimulate interest in new technologies.
- To encourage pupils with access to home computers to contribute to and enhance their school work and homework.
- To use ICT to keep parents informed of all aspects of school life.
- To develop staff so that they are able to adapt to the continually changing challenges presented by ICT and in so doing ensure that our pupils receive an ICT education in line with their ability, access and needs.

Access to ICT

The school has a WIFI network through the school; enabling portable devices to connect to the internet. The school internet connect is filtered & any device which connects through the school WIFI or wired network is filtered. This does not take away the pupils responsibility to use these facilities responsibly.

Each pupil is setup with a 'Cloud' based: e-mail, calendar, contacts, file storage area, groups area (used for subject, trips, awards correspondence), word processor, spread sheet, presentation, forms & drawing software. This is an education dedicated service which is tailored to meet the pupils needs & help protect them on-line. All on-line allowing the pupils to access their work anywhere on any device.

A dedicated ICT classroom; which is used for class teaching & as a reference & work area, where pupils can access these facilities when needed.

The school also has shared resources such as: a digital cameras, digital microscopes, headphones, a video camera, calculators, scanners, printers, a school trips mobile phone, Fisher Technic computer control modules.

Within the Junior School

The Magdalen Court School follows the QCA Scheme of Work, which has been added to or adapted by teachers where necessary. There are 31 units provided; 10 for Key Stage 1 and 21 for Key Stage 2. The main ideas are revisited, extended and consolidated over the primary phase. Pupils will acquire confidence and enjoyment in using Information and Communication Technology and will become familiar with everyday applications of ICT. They will also be able to evaluate the technology's potential and limitations. Pupils with special educational needs are able to use the technology to encourage their independence and develop their interests and abilities. All pupils learn to work individually and collaboratively.

The above will be implemented by ensuring that all pupils receive teaching and opportunities to apply ICT in the following National Curriculum strands:

- **Searching for Information** –searching for, checking and interpreting information from databases, the internet, people and printed material.
- **Developing ideas and making things happen** –using desktop publishing applications, , using Serif packages and control programs
- **Exchanging and sharing information** –using creative programs to communicate via text, graphics and/or sound with developing a sense of audience.

Reviewing, modifying and evaluating work as it progresses –choosing to use ICT tools to be able make changes to work in progress and knowing how and when to do this.

Within the Senior School

Pupils need to be prepared for a society that is increasingly dominated by ICT applications. As such the department aims to develop pupils' information-handling skills, their understanding of the effects of increasing computer use within society and their ability to apply ICT techniques effectively and selectively. Through their study of ICT, pupils will develop an understanding of computers as two-state machines, capable of executing a wide range of software. At the same time, the school engenders in pupils an appreciation of the benefits and dangers inherent in the use of computers as well as teaching the theoretical and practical fundamentals of software design and hardware use. ICT is part of the core curriculum in Years 7 to 9 and pupils cover a range of subjects including ICT theory, solving problems through flowchart techniques, and multimedia technologies including podcast creation and web design.

Year 7

Pupils are given a broad introduction into the use of ICT in general and to the Academic Network in particular. Pupils learn the basics of network navigation, creating and using folders, basic ICT etiquette, hardware devices and software applications. Touch-typing using a package called 'KAZ' is introduced. Pupils then move on to cover formal word- processing techniques that enable them to apply their typing skills.

Pupils investigate spreadsheet modelling using a series of integrated assignments. In particular, they learn how to set up basic templates that enable them to model different input values and to consider the differing output results. Pupils learn to use simple formulae that calculate row and column totals and then how to use the chart wizard to create charts based on their data. Pupils also learn to use desk-top publishing (DTP) software to manipulate and present information, to apply cropping and editing techniques to images and to use a variety of different templates to produce documents such as promotional leaflets and restaurant menus.

In E-safety, pupils are informed of possible on-line dangers. The use of chat rooms and social networking sites is investigated and pupils learn the importance of applying security settings and how to report possible abuse.

Year 8

Pupils focus on reinforcing those functional skills acquired during Year 7. Their knowledge of word-processing skills is extended to cover mail-merging using both database software and desktop publishing software together with standard letter forms. Pupils learn the fundamental concepts of control programming using the 'Flowol' application.

Pupils also develop their skills in the use of presentation software, specifically PowerPoint; they prepare a storyboard from an assigned task incorporating the full range of PowerPoint techniques acquired and present their work to their peers.

Year 9

Pupils extend their knowledge of database construction. They learn about the three basic file update techniques: insertion, deletion and edit, the need for a unique key field when designing record structures and how to design simple and complex queries. Use of the report generator and forms is also covered.

Pupils learn how computers can be used to monitor and control events using hardware devices linked to software. They learn to appreciate that computers can be used to record physical information over a period of time (data logging) and learn also to write program instructions using two applications: 'Visual Control' and 'LOGO'. Within data logging, pupils learn about types of sensors and where they can be used.

Pupils are encouraged to extend and to enhance their individual presentation skills by developing and presenting podcasts based upon news reviews and advertisements. Pupils learn these techniques using the 'Audacity' application.

Pupils learn to use the wide variety of drawing tools available in 'GoogleSketch' to produce 3-D images such as chairs and houses.

Their achievement is monitored through their ability to communicate information, to manage information, to control, monitor and measure, and to model. In addition assignments are posted on the school's Virtual Learning Environment enabling pupils to continue working on tasks commenced in class at home, thereby promoting independent learning. At the end of Year 9 all pupils take a public examination, 'Functional ICT'. If successful, pupils are awarded a certificate indicating their competence in the use of a range of applications software including email, database, modelling and presentation programs. The qualification forms an excellent preparation for GCSE ICT, but for those pupils who do not wish to take the subject at GCSE, it also provides a formal conclusion to Key Stage 3 Information Technology. The GCSE ICT course covers both the information-handling aspects of using computers and their use as programmable machines. Students learn to apply applications software to a series of tasks and also learn to write their own software.

At Key Stage 4 pupils study the OCR Cambridge National Certificate in ICT. This is a vocationally-related qualification that takes an engaging, practical and inspiring approach to learning and assessment. The everyday use of ICT, from PCs to smartphones, now impacts all of our lives. The Cambridge Nationals in ICT provides pupils with a solid understanding of the subject which they can use in their working lives. Three themes are covered: business information systems, creative use of ICT and technical understanding.

Magdalen Court School Key Stage 4 ICT is industry relevant, geared to key sector requirements, highly functional and popular with pupils because it suits such a broad range of learning styles and abilities.

Years 10 & 11

The course involves the investigation and study of ICT in a variety of contexts, including home, school, business and industry. Pupils study a range of topics, including file and database theory, information processing and operating system functions, and then learn to apply techniques selectively to a variety of situations. Current and emerging technologies including Bluetooth, blogs, social networking and digital broadcasting will be discussed.

In addition to using applications software such as MS Office, pupils also learn how to write their own programs using the Visual Basic (VB) programming language. In addition to applying practical skills using generic software, pupils learn the theory underpinning ICT and in particular develop analytical skills by implementing the system life cycle.

NB: Programming involves learning to use a technical language to write instructions that a computer will perform. Pupils who have difficulty with written English will find learning an additional *technical* programming language very difficult to cope with.

Examination Details

Unit 1: Written examination paper (40%)

The examination requires candidates to apply their knowledge of applications software such as databases and spreadsheets to scenario descriptions. Questions also cover hardware, peripherals, data protection, data validation, data privacy and security.

Coursework Details

Two controlled assessment units:

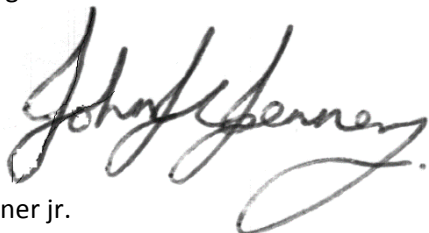
Unit 2: The Assignment (30%) Unit 3: Practical Problem-Solving in ICT (30%)

Both assessment units change yearly but will always involve the analysis of a situation and the selective use of applications software to solve a variety of tasks, which are then documented.

Unit 3 also requires candidates to use applications software, but in addition candidates will develop their own software solutions by writing their own programs. It is strongly recommended that candidates have access to a computer outside school. The principal software used on the course is the MS Office suite and MS Visual Basic

Date: August 2016

Signed:



Mr J.Jenner jr.

ICT co-ordinator

Principal

To be continuously monitored and reviewed by no later than two years from the date shown above.