



Subject Spotlight

Information Technology (ICT)

The importance of being able to confidently, appropriately and safely use digital technologies cannot be overemphasised. Being digitally literate is essential to being able to thrive in the 21st century. Our curriculum aims to increase our students' interest in, and their understanding of, a wide range of digital technologies and software applications. The digital sector is already very large but is expected to be a key area of growth, especially in the North-East of England. Studying ICT will not only provide skills that are useful in all jobs but will provide knowledge and skills that will be extremely useful in this sector. Students will have direct experience of using industry standard software in photo editing and web design as well as being able to project manage and present information in a professional way. ICT is everywhere and this subject enable students to be successful in all aspects of their digital lives.

Curriculum intent

We want our students to understand and play an active role in the digital world that surrounds them, not to be passive consumers of an opaque and mysterious technology. A sound understanding of ICT concepts will help students see how to get the best from the systems they use, and how to solve problems when things go wrong. In a world full of technology, every school-leaver should have an understanding of ICT and be digitally literate.

ICT at Hermitage Academy is an immersive experience, exposing students to fundamentals such as Microsoft Office, which is an essential tool for most jobs in today's workforce. Creative computing such as image manipulation, website and computer game development, teaches young people how to express their creativity in an informed and responsible way and encourages them to reflect on what they produce and strive for excellence. Finally, computer science concepts such as how computers work and developing coding solutions, using multiple programming languages, to real-world problems, develop critical thinking and problem-solving skills that are essential in future life.

Throughout the key stages, students will encounter a range of software, completing project-based tasks, providing solutions to given scenarios. Students will also be encouraged to think about e-safety and cultural issues of ICT. These include the impact of technology on daily life, the "digital divide" and globalisation.

As well as following the curriculum, students will be encouraged to read for pleasure, experiencing a diverse range of literature as a platform for exploring new ideas, developing critical thinking skills and learning more about the world around them.

Students enjoy ICT because it is varied, fast-paced and fun. Every student is inspired to believe in their potential and to aim high. Careers within the digital sector are the fastest growing sector today, predictions estimate there will be twice as many jobs than candidates to fill them in the coming years. We have devised our ICT curriculum with this in mind, students acquire a grounding towards knowledge, skills and understanding that a growing number of employers are demanding.



Subject Spotlight

Key Stage 3 Curriculum

Each year in Key Stage 3 begins with a series of lessons covering important aspects of e-safety.

Year 7 Units

Office Skills- This teaches the fundamentals of Microsoft Office applications, email, the internet and file management.

Introduction to Computer Systems- This unit provides an introduction to hardware, software, storage devices, networks and network security.

Photoshop- Students will learn about image manipulation in the media and use the skills they learn to create composite digital images.

Scratch- Students will use this block-based programming language to start their coding journey and develop a game based around the classic game PONG.

Year 8 Units

Intermediate computer systems- This builds on the introduction to computer systems unit from year 7 and covers binary, sorting algorithms, network topologies, computer logic and data representation.

Vector Images- This unit explores the creation of vector mages using specialised illustration software.

Cyber Security- Students will learn the concept of cyber security with a focus on data can be used be organisations to generate income. Students will learn the difference between data and information and what rights they have in protecting their data. Students will investigate different types of cyber-attacks including social engineering, hacking and malware.

GameMaker - Students will use this high-level visual programming language to learn coding concepts, basic scripting and develop a maze game of their own theme, similar to PAC-MAN.

Year 9 Units

Python- Students will learn and apply the use of sequence, selection, iteration and string manipulation in this high-level industry standard programming language.

Interactive Multimedia Products- Students design and create an interactive multimedia product for a given scenario. The product will incorporate text, images, videos, sound and hyperlinks.

Creating a comic Strip– Students will explore the history of comics and learn the design principles of comic strips. They will expand their knowledge and skills within Photoshop software and learn how to manipulate images, add layers and add text to create a comic strip.

Digital Literacy Skills- This unit teaches students a variety of tools and techniques in different office software to prepare them for GCSEs and Further Education.



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Key Stage 4 Curriculum

Course: Cambridge Nationals Creative iMedia Level 1/2 - J834

Students will study three units which are assessed either through an external exam or internally marked and externally moderated assignments:

Creative iMedia in the media industry - This is assessed by taking an exam. In this unit students will learn about the media industry, digital media products, how they are planned, and the media codes which are used to convey meaning, create impact, and engage audiences. Topics include:

- The media industry
- Factors influencing product design
- Pre-production planning
- Distribution considerations

Visual identity and digital graphics

This is assessed by completing a set assignment. In this unit students will learn to how to develop visual identities for clients and use the concepts of graphic design to create original digital graphics to engage target audiences. Topics include:

- Develop visual identity
- Plan digital graphics for products
- Create visual identity and digital graphics

Interactive digital media

This is assessed by completing a set assignment. In this unit students will learn how to plan, create and review interactive digital media products. Topics include:

- Plan interactive digital media
- Create interactive digital media
- Review interactive digital media.

Studying ICT can open doors...

By choosing to study ICT, the following careers paths are open to you:

Application Designer/Developer – Design and produce apps for a variety of platforms including smartphones, tablets and desktop computers.

Games Designer/Developer – Design and develop interactive games for a variety of platforms. You may work as part of a large team or as a solo developer.

Systems Analyst - As a systems analyst, you'll use computers and related systems to design new IT solutions, modify existing systems and integrate new features, to improve business efficiency and productivity.

Web Developer - Web developers use programming languages to build websites and web applications which could be on a small or very large scale.



Subject Spotlight

Social Media Manager - Social media managers lead and implement an organisation's social media strategy. This is now an essential role in many organisations.

Project Manager - Project managers plan and manage projects. They manage resources, budgets and people to achieve a desired outcome, for example the implementation of a new IT system.

UX Designer – Design the way that users interact with applications so that they have a positive user experience. This role will investigate, design and implement the interfaces that users interact with in apps, games and more.