

# The Samworth Church Academy

## Curriculum Journey: Information Technology (iMedia)

### Year 7

Autumn	<p><i>My Digital World</i> Passwords, email, Office 365 &amp; e-safety. <i>Search engines and legislation</i> Searching the internet safely, validity of information and developing understanding of e-safety and online threats.</p>
Spring	<p><i>PowerPoint</i> Consistent design and developing a master slide. <i>Word</i> Proficient use of Word from basics to more advanced features such as mail merge.</p>
Summer	<p><i>Spreadsheets</i> Software and key language, basic functions and formulae. <i>Databases</i> Databases in modern applications, create a database consisting of multiple tables.</p>

### Year 8

Autumn	<p><i>Intro to Computers</i> Input and output devices, CPU, storage and memory. Computer components and how they work <i>Computational Thinking</i> Independent problem solving, decomposition, pattern recognition and algorithms</p>
Spring	<p><i>Scratch</i> Basic programming using Scratch. <i>Python</i> Evolving their skills into a higher level programming language.</p>
Summer	<p><i>Cryptography</i> History of codes, develop skills in using ciphers. <i>Cyber Security</i> Social profiling, engineering, ransomware and malicious code.</p>

### Year 9

Autumn	<p><i>Photoshop</i> Introduction to Photoshop and the ethical issues arising from using it. <i>Data Representation</i> How computers work from the ground level, 1s and 0s. Exploring binary numbers.</p>
Spring	<p><i>Illustrator</i> Using Illustrator to create vector graphics and where they can be applied. <i>Networks</i> Benefits of networking, how data is transferred, hardware required.</p>
Summer	<p><i>Animation</i> Developing knowledge and skills, both interactive and non-interactive. <i>Ethical, Environmental &amp; Legal Issues</i> Laws that have an impact on computing, difference between law and ethics.</p>

### Year 10

Autumn	<p><i>Exam Theory</i> The media industry, factors influencing product design. <i>Graphics Introduction</i> Pre-production planning, distribution concerns.</p>
Spring	<p><i>Visual Identity and Digital Graphics</i> Develop visual identity, plan digital graphics for products, create visual identity and graphics <i>Digital Games</i> Plan and create digital games</p>
Summer	<p><i>Non-Exam Assessment (NEA)</i> Develop visual identity based on a client brief, plan digital graphics for products based on a client brief.</p>

### Year 11

Autumn	<p><i>Digital Games</i> Create and enhance digital games, review digital games <i>Non-Exam Assessment (NEA)</i> Plan and create digital games based on a client brief.</p>
Spring	<p><i>Non-Exam Assessment (NEA)</i> Create digital games based on a client brief, review digital games based on a client brief. <i>Graphics and Digital Games</i> finalisation of NEA/CAB/Coursework tasks</p>
Summer	<p><i>Recap of Exam Theory</i>  iMedia Exam Revision</p>

GCSE



# Full Overview

IT

## Year 7

Autumn	Spring	Summer
<p><b>My Digital World</b> Students will be assessed on prior skills, knowledge and learning experiences from KS2 to establish their current ability in order to support the transition process and the ICT &amp; Computing curriculum. Students are educated on the safe use of technology in their digital lives, as they become frequent users of social media and the Internet. Topics covered include password security, Email/respectful communication, Use of Office 365 and E-safety.</p> <p><b>Search Engines and Legislation</b> Students will learn to search the internet safely. They will learn how to determine the validity of the information they find and discover efficient searching techniques while developing their understanding of e-safety and online threats.</p>	<p><b>PowerPoint</b> Students will learn how to present information that is fit for the purpose and audience by creating consistent designs within a master slide. The skills that they obtain will help them across the academy.</p> <p><b>Word</b> Students will learn how to proficiently use work from the basics to more advanced features such as mail merge. Again these skills that the students obtain will help them across the academy.</p>	<p><b>Spreadsheets</b> Students introduced to Spreadsheet software and key language. Students understand the purpose and use of basic functions and formulae, including the importance of BODMAS and how to use cell references and cell ranges correctly. Students will choose, create and interpret basic charts and graphs.</p> <p><b>Databases</b> Students will understand the role of databases in modern applications, specifically how they are used in conjunction with other web technologies. They will create a database consisting of multiple tables and learn how to produce queries and reports.</p>

# Full Overview

IT

## Year 8

Autumn	Spring	Summer
<p><b>Intro to Computers</b> Students will learn about input &amp; output devices, the CPU, storage and memory. Students will explore the components that make up a computer and how they work together to function in terms of the fetch, decode and execute cycle.</p> <p><b>Computational Thinking</b> Students will begin to develop their ability to problem solve independently; using decomposition, pattern recognition, abstraction, and algorithms. These are the pillars of Computer Science and provides a good foundation for other KS3 units and KS4 Computer Science.</p>	<p><b>Scratch</b> Students will begin to learn key programming concepts using Scratch, a visual programming language; including sequencing, selection and iteration. This is an introduction to a block-based programming environment to understand the fundamentals of code. Students will also learn how a variable is used along with decisions and selection.</p> <p><b>Python</b> Students will build upon their scratch block based environment into a high level programming language. Students will learn how an IDE works in order to aid coding and learn how to debug programs.</p>	<p><b>Cryptography</b> Students will investigate the history of codes and understand how cryptography has been used in history. They will understand the need for cryptography today. They will develop skills in using a variety of ciphers. E.g., Caesar cipher, enigma machine Bletchley Park, Pig Pen, Vigenère, Atbash, Morse Code, NATO/Phonetic alphabet.</p> <p><b>Cyber Security</b> Introduction to cyber security and the issues that we are faced on a day-to-day basis when working online. Students will learn about social profiling, engineering, ransomware, and malicious code.</p>

# Full Overview

IT

## Year 9

Autumn	Spring	Summer
<p><b>Photoshop</b> Students will gain an introduction to digital artefacts for photoshop. They will understand that ethically photoshop can be used maliciously and they are constantly surrounded by digitally enhanced imagery online and in print. Students will learn the key elements of the software and learn a basic knowledge of editing.</p> <p><b>Data Representation</b> Students will explore how a computer works from the ground level, 1s and 0's. Students will explore the binary number system and be able to transpose between denary the and binary number systems. Expanding on this, students will understand that everything that they do on a computer is stored as a 1 or a 0. They will look at how this works for images, text and sound.</p>	<p><b>Illustrator</b> Vector graphics can be used to design anything from logos and icons to posters, board games, and complex illustrations. Through this unit, students will be able to better understand the processes involved in creating such graphics and will be provided with the knowledge and tools to create their own.</p> <p><b>Networks</b> As networks have evolved, society has become increasingly reliant on the services that they provide. They have changed the way we learn, work, play, and communicate. This unit begins by defining a network and addressing the benefits of networking, before covering how data is transmitted across networks using protocols. The types of hardware required are explained, as is wired and wireless data transmission. Learners will develop an understanding of the terms 'internet' and 'World Wide Web', and of the key services and protocols used.</p>	<p><b>Animation</b> Students have the opportunity to develop their knowledge and skills in a highly creative field of study. Whether it be fully fledged animation production or animations that form the basic transition structure for our websites and games. You are only limited by your imagination.</p> <p><b>Ethical, Environmental and Legal Issues</b> Students will understand that there are several laws that govern the use of computer systems and data. However, ethics is about good practice and behaving in a morally correct way. Ethical actions are different from lawful actions. Sometimes actions can be legal, but are they ethical.</p>

# Full Overview

iMedia

## Year 10

Autumn	Spring	Summer
<p><b>R093 iMedia Exam Theory (Creative iMedia in the media industry)</b> In this unit you will learn about the sectors, products and job roles that form the media industry. You will learn how media codes are used within the creation of media products to convey meaning, create impact and engage audiences.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• The media industry</li> <li>• Factors influencing product design</li> </ul> <p>R093 knowledge for exam preparation: Media industry sectors and products. Job roles in the media industry. How style, content and layout are linked to the purpose. Client requirements and how they are defined. Audience demographics and segmentation. Media codes used to convey meaning, create impact and/or engage audiences. Sources of research and types of research data.</p> <p><b>R093 iMedia Exam Theory (Creative iMedia in the media industry). Begin R094/Graphics introduction</b> In this unit you will continue to learn the legal and ethical issues considered and the processes used to plan and create digital media products. You will learn to choose the most appropriate format and properties for different media products. Completing this unit will provide you with the basic skills for further study or a range of creative job roles within the media industry.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• Pre-production planning</li> <li>• Distribution considerations</li> </ul> <p>R093 knowledge for exam preparation: Work planning and documents used to support ideas generation. Documents used to design/plan media products. Distribution platforms and media to reach audiences. Properties and formats of media files. The legal issues that affect media.</p>	<p><b>R094 (Visual Identity and Digital Graphics) Controlled Assessment Brief /NEA Theory</b> Identity is a vital component of any business, product or brand. A visual identity communicates values and core principles to the consumer, user or customer. It makes a brand recognisable and helps sell a product or idea to a target audience. Logos, shapes, typography, colour theory and composition are all used to generate visual identities which work across different platforms and media, and user interface and experience are key considerations in the design process.</p> <p>In this unit you will learn how to develop visual identities for clients. You will also learn to apply the concepts of graphic design to create original digital graphics which incorporate your visual identity to engage a target audience. Completing this unit will introduce the foundations for further study or a wide range of job roles within the media industry.</p> <p>Unit R094: Visual identity and digital graphics This is assessed by completing a set assignment – released June 1st.</p> <p>In this unit you 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.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• Develop visual identity</li> <li>• Plan digital graphics for products</li> <li>• Create visual identity and digital graphics</li> </ul> <p><b>R099 (Digital Games) Controlled Assessment Brief /NEA. Theory</b> The UK has one of the largest games markets in the world, and the UK's games industry is among the largest in Europe. Its workforce has one of the youngest profiles in the media industries with earnings above the media industry average. It is a sector with a huge variety of technical and creative job roles. This unit will open the door to a variety of roles within the media industry by enabling you to identify core features of digital games and understand the basics of planning, designing, creating and testing digital games.</p> <p>In this unit you will learn to interpret client briefs to devise original digital game concepts. You will learn to plan digital games effectively and to use a Game Design Document to create engagement among developers and clients.</p> <p>Unit R099: Digital games This is assessed by completing a set assignment.</p> <p>In this unit you will learn how to plan, create and review digital games.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• Plan digital games</li> <li>• Create digital games</li> </ul>	<p><b>LIVE NEA</b> Unit R094: Visual identity and digital graphics This is assessed by completing a set assignment – released June 1st. LIVE ASSIGNMENT.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• Develop visual identity based on a client brief. LIVE ASSIGNMENT.</li> <li>• Plan digital graphics for products based on a client brief. LIVE ASSIGNMENT.</li> </ul> <p><b>LIVE NEA</b> Unit R094: Visual identity and digital graphics This is assessed by completing a set assignment – released June 1st. LIVE ASSIGNMENT.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• Plan digital graphics for products based on a client brief. LIVE ASSIGNMENT.</li> <li>• Create visual identity and digital graphics based on a client brief. LIVE ASSIGNMENT.</li> </ul>

# Full Overview

iMedia

## Year 11

Autumn	Spring	Summer
<p><b>R099 (Digital Games) Controlled Assessment Brief / NEA. Theory</b> Game Enhancements. Testing and Reviewing. You will learn to plan digital games effectively and to use a Game Design Document to create engagement among developers and clients. You will learn to create, edit, test and export playable digital games which you have designed. Completing this unit will provide you with the basic skills for further study or a range of creative and technical job roles within the media industry.</p> <p>Unit R099: Digital games This is assessed by completing a set assignment.</p> <p>In this unit you will learn how to plan, create and review digital games. Topics include:</p> <ul style="list-style-type: none"><li>• Create/Enhance digital games</li><li>• Review digital games</li></ul> <p><b>LIVE NEA</b> R099 (Digital Games) Controlled Assessment Brief / NEA. LIVE ASSIGNMENT. Unit R099: Digital games. This is assessed by completing a set assignment – released June 1st. LIVE ASSIGNMENT. Topics include:</p> <ul style="list-style-type: none"><li>• Plan digital games based on a client brief. LIVE ASSIGNMENT.</li><li>• Create digital games based on a client brief. LIVE ASSIGNMENT.</li></ul>	<p><b>LIVE NEA.</b> R099 (Digital Games) Controlled Assessment Brief / NEA. LIVE ASSIGNMENT. Unit R099: Digital games. This is assessed by completing a set assignment – released June 1st. LIVE ASSIGNMENT. Topics include:</p> <ul style="list-style-type: none"><li>• Create digital games based on a client brief. LIVE ASSIGNMENT.</li><li>• Review digital games based on a client brief. LIVE ASSIGNMENT.</li></ul> <p><b>R094 Graphics and R099 Digital Games finalisation of NEA/CAB/Coursework tasks.</b></p>	<p><b>Recap of exam theory</b> Recap:</p> <ul style="list-style-type: none"><li>• The media industry</li><li>• Factors influencing product design</li><li>• Pre-production planning</li><li>• Distribution considerations</li></ul>