

# ICT & COMPUTING – KS4

**Teachers:** Ross Fincham

The ICT department offers stimulating and engaging curriculum. All KS3 pupils are taught skills in communicating information, developing ideas (coding), evaluating information and finding information. Key stage 4 pupils continue to develop these core skills before enrolling on the BCS Essential Digital Skills Qualifications (EDSQ).

## Schemes of work:

### Year 10

Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
<p><b>PRESENTING EVIDENCE</b></p> <ul style="list-style-type: none"> <li>• Use knowledge of the planning process to identify ways things are planned for things and why it is useful</li> <li>• Use Word processing software and appropriate formatting to create documents that solve problems and present information logically</li> <li>• Combine search result information with software to create new documents that convey information to a target audience</li> <li>• Explore online document creation and how details are presented. Convey information clearly and use the knowledge of the software tools to generate a document</li> <li>• Investigate how different DTP software programs can be used to create an outcome as expected by traditional use of the software. Using tools within software programs to generate a non-traditional document</li> <li>• Explore how software can be used to complete tasks used in 'everyday', 'employment' tasks. Create documents such as C.V or Personal Information</li> <li>• Edit a document by applying an item such as a letterhead</li> </ul>	<p><b>SPREADSHEETS</b></p> <ul style="list-style-type: none"> <li>• Recap of the location and features of spreadsheet software</li> <li>• Explore the use of absolute cell references and how they are used with a spreadsheet</li> <li>• Identify ways of copying formulas across different cells in order to make working with data more proficient</li> <li>• Creation of spreadsheets to record and format data using text based formulas such as =len</li> <li>• Extend the use of formulas across the spreadsheet and sheets by using different=lookup formulas</li> <li>• apply more complex features to graphs and charts by using the format tools and other software programs</li> <li>• Analyse results on a spreadsheet to answer questions that require a result</li> <li>• Explore how spreadsheets can be used with data personal to an individual or business and manage the control of a set of criteria's</li> <li>• extend formulas to control specific outcomes such as =IF to display specific information</li> <li>• Apply conditional formatting to cells</li> </ul>	<p><b>DATABASES</b></p> <ul style="list-style-type: none"> <li>• Explore the variety of ways that data is presented and how it can be organised</li> <li>• Identify what a flat file and relational database is and how they can be used</li> <li>• Looking at online data and how data is used in a commercial/entertainment way</li> <li>• Know that databases contain records which are broken down into fields</li> <li>• Look at databases and identify ways to physically organise the data in a variety of ways</li> <li>• Use software tools to sort data in ascending, descending and alphabetical orders</li> <li>• Begin to explore using filter tools to place and specifically locate key sets of information</li> <li>• Explore ways of presenting results from searches such as screen printing and annotating across different software programs.</li> </ul>	<p><b>CHECKING ACCURACY</b></p> <ul style="list-style-type: none"> <li>• Understand that most software programs have a help tool which can be used to locate answers to using the software</li> <li>• Use logical questioning to narrow search results in a way that can be presented</li> <li>• How a database containing multiple records can be reset in order to continue searching or apply a new search</li> <li>• Use software to narrow results across different software programs and edit them using multiple software types</li> <li>• Locating errors within data by using filtering and entering different menus then editing the results as needed.</li> <li>• Explore how to open a document and apply changes but keep the original document</li> <li>• Use software to create a data set and then convert it to a suitable file format by selecting a program</li> <li>• Generate fields and entries by inputting data either using physical inputting or copy and paste options</li> </ul>	<p><b>Start of BCS Digital Skills qualifications</b></p> <p><b>USING DEVICES AND HANDLING INFORMATION</b></p> <p>Using Devices</p> <p>Know what is meant by hardware, software, operating systems and applications; locate and install an application; apply system settings, including those for accessibility.</p> <p><b>Finding and Evaluating Information</b></p> <p>Navigate online content using hyperlinks, menus and other navigation elements to locate required information; carry out searches to find information and content.</p>	<p><b>Managing and Storing Information</b></p> <p>Open, read and save information from/to a file using appropriate naming conventions; work with files and folders to store, organise and retrieve information using local and remote storage.</p> <p><b>Identifying and Solving Technical Problems</b></p> <p>Recognise when a technical problem has been encountered, solve simple technical problems, and seek assistance when unable to solve a technical problem.</p>

### Year 11

Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
<p><b>Creating and Editing Documents</b></p> <p>Use a suitable application to enter, edit and format information (including text, numbers and graphics).</p> <p><b>Creating and Editing Digital Media</b></p> <p>Capture and save images, sound and video</p> <p><b>Communicating and Sharing</b></p> <p>Create, edit and use contacts when sending and receiving online communications comprising text and other digital content to individual and multiple recipients; initiate and participate in a video call.</p>	<p><b>Managing Traceable Online Activities</b></p> <p>Identify the types of digital activities that leave a 'digital footprint' and understand the implications.</p> <p><b>TRANSACTING- Using Online Services</b></p> <p>Complete and submit a form as part of an online transaction, complying with verification checks.</p> <p><b>Buying Securely Online</b></p> <p>Buy an item/service online using a chosen method of online payment.</p>	<p><b>Protecting Privacy</b></p> <p>Identify situations where personal information may be stored by devices and online activity; identify and use simple methods to protect personal information and privacy.</p> <p><b>Protecting Data 1</b></p> <p>Be aware of online risks and threats; identify and use simple methods to protect a device and data from online risks and threats; be aware of the security risks of using public Wi-Fi.</p>	<p><b>Protecting Data 2</b></p> <p>Configure and use secure ways to access devices and online services.</p> <p><b>Being Responsible Online 1</b></p> <p>Know how to report concerns with online content.</p> <p><b>Digital Wellbeing</b></p> <p>Recognise and minimise the effects of physical stresses of being online.</p>		

**Syllabus materials KS4:**

[eds-qualification-specification-e3-work.pdf \(bcs.org\)](#)

**Careers in ICT/computing:**

[1438 My Learning My Future Computer Science Final.pdf \(careersandenterprise.co.uk\)](#)