Computers	Year 7	Year 8	Year 9
Topics Studied	**Digital Citizenship** Students learn of organisation within Computing as well as basic proficiencies within Microsoft. Safety of being online features heavily **Using Media:** students learn basic software skills and legislation, trustworthiness of sources–for example: word processing, spreadsheet, desk top publishing, copyright, researching and blogging **Desk Top Publishing** Students learn to create documents used by businesses. **Introduction to Data Representation:** students explore the concept of Data Representation Binary, ASCII, binary addition, Hexadecimal Number Systems and Conversions **Introduction to Control Technologies:** students learn the basic skills they need to understand algorithms, the construction of flow charts and the use and sequencing of events via Flowol **Introduction to Scratch:** students explore the features of Scratch graphical programming software	**Networks:** students learn about standalone and networked devices: Local Area Networks (LANs) and Wide Area Networks (WANs) with the advantages and disadvantages of both. **Introduction to Podcasting:** students explore the rudiments of Audacity, examining how to manipulate the tools to produce high quality audio **Introduction to Edublocks:** students explore the features of visual programming and text based programming **Introduction to Media** students learn to pre-production, production and post production of median products **Cybersecurity:** Students learn about the importance of data and how humans actions can make data more vulnerable to theft and exploitation. Students learn about common cyberattacks and measures to help protect IT systems. Students learn about the laws protecting data	**Spreadsheet Modelling:** Students are introduces to data, information, formatting, formula, functions and graphs **Introduction to how devices/computers work:** Students are introduced to input, process, output. To understand the insides of Personal Computers (PC), software/hardware, RAM/ROM and permanent storage devices **Introduction to Graphics software:** Students learn about how to import, edit, manipulate and export images using Photopea **Python:** To explore the concept of Python – a Text-Based Programming Introduction to Computer Science **Privacy and Surveillance** Students understand how data can be lost and stolen as well as the legal framework in Computing
Skills and Key Knowledge Taught	-Creating a memorable and secure password for an account on the school network -Recognise the attributes of a respectful email -Describe how to communicate with peers online -Describe cyberbullying and the effects of cyberbullying -Understand the schools AUP log on to the school system	-Recognise that computers follow the control flow of input/process/output -Predict and modify the outcome of a simple sequence -Predict the outcome of a simple sequence that includes variables -Trace the values of variables within a sequence	Calculations, data, information, graphs, analysis, formulae, functions, formatting, primary and secondary sources and context. Input, process, output, motherboard, CPU, software/hardware, RAM/ROM and permanent storage devices (secondary).

	-E-safety (passwords, cyberbullying, stranger danger topics) -Folder structure -Presenting to an audience -Understand different software features and their use -Understand appropriate images online -Copyright designs and patents act -How to give peer feedback and responding to feedback -Credibility of sources -Recognising fake news -Researching, acknowledging sources and creating a blog -Learn about business documents -Recognise that computers follow the control flow of input/process/output -Predict and modify the outcome of a simple sequence -Predict the outcome of a simple sequence that includes variables -Trace the values of variables within a sequence -Make a sequence that includes a variable -Create conditions that use comparison operators (>,<,=) -Create conditions that use logic operators (and/or/not) -Define iteration as a group of instructions that are repeatedly executed -Implement count-controlled iteration in a program -Detect and correct errors in a program (debugging) -Algorithms and Flowol program	-Make a sequence that includes a variable -Create conditions that use comparison operators (>,<,=) -Create conditions that use logic operators (and/or/not) -Define iteration as a group of instructions that are repeatedly execute -Implement count -controlled iteration in a program -Detect and correct errors in a program (debugging) -Binary number system (conversion of binary to denary and reversed) -ASCII and Hex will be introduced to most able -Algorithms and Flowol program -Learn about business documents -Rudiments of web design and podcasting	-Rudiments of graphic design -Predict and modify the outcome of a simple sequence -Predict the outcome of a simple sequence that includes variables -Trace the values of variables within a sequence -Make a sequence that includes a variable -Create conditions that use comparison operators (>,<,=) -Create conditions that use logic operators (and/or/not) -Define iteration as a group of instructions that are repeatedly executed -Implement count-controlled iteration in a program -Detect and correct errors in a program (debugging) -data, privacy and the law -types of social engineering -hacking -Malware Cyber threat, prevention and protection

Links for Support/ Help at Home	Use of student resources located within WHS SharePoint for students Complete Digital Safety and Digital Literacy courses for free online to ensure students understand E-Safety Use of additional homework booklets, therapy work packs and/or additional resources from the class teacher via Synergy Participation in enrichment opportunities and/or extra-curricular activities Teacher discussions following assessments and/or reports Facilities at home to use and practice programs on (after school clubs available to enable this) Youtube tutorials and guidance on using programs covered within our schemes of learning Researching key figures in the progression of computers to act as role models Accessing STEM resources (www.stem.org.uk) for free learning at home for secondary computing and progression Careers research: researching careers within Computing or STEM Attending fairs, workshops or IT events