Curriculum Intent Document:

	Year 7	Year 8	Year 9

Autumn 1	HT1 - Introduction to Computing	HT1 - Computer Networks	HT1 - UX and Website Design
	Content covered, including knowledge and skills:	**Content covered, including knowledge and skills:**	**Content covered, including knowledge and skills:**
	Core Lessons **C1** Introduction to Computing **C2** Functionality of a Keyboard **C3** Email Etiquette **C4** File Management and OneDrive	**Core Lessons** **C1** What is a Computer Network? **C2** Transmission Media **C3** Wired and Wireless Networks **C4** Types of Networks	**Core Lessons** **C1** What is a User Interface? **C2** Audience Needs **C3** Design Principles **C4** Website Design Principles
	Expansion Lessons **E1** Microsoft Word Basics **E2** Mail Merge	**Expansion Lessons** **E1** What is the Internet? **E2** Cloud Computing **E3** Network Protocols	**Expansion Lessons** **E1** Website Domains and Hosting **E2** How Search Engines Work
	Links to British Values and SMSC Students will learn about the basics of Computing including using keyboards proficiently which they will continue to	**Links to British Values and SMSC**	**Links to British Values and SMSC** Students will learn about best practice for designing User Interfaces notably including catering designs to meet client

	practice in their starters for their lessons as well as learning best practice for emails and file management. **Career Opportunities** - IT Technician - HR Administrator - Journalist - Writer **Literacy: Key Words and Terminology** - Shortcut - Email - Carbon Copy - Cloud Storage - Etiquette	Students will learn about how computers and digital devices are connected including why we use networks, the different ways of connecting them as well as the different types of networks they can encounter. **Career Opportunities** - IT Technician - Network Manager - Broadband Engineer **Literacy: Key Words and Terminology** - Network - VPN - Wireless - LAN - Bandwidth	requirements and different accessibility needs. **Career Opportunities** - UI Designer - Graphic Designer - Web Developer **Literacy: Key Words and Terminology** - Accessibility - GUI - Command Line - Layout - Menu
Autumn 2	HT2 – E-Safety and Digital Literacy **Content covered, including knowledge and skills:** **Core Lessons** **C1** Social Media and Cyber Bullying **C2** Digital Footprint **C3** Passwords and Authentication **C4** Artificial Intelligence and E-Safety	HT2 - Cyber Security **Content covered, including knowledge and skills:** **Core Lessons** **C1** Malware **C2** Social Engineering **C3** Protecting Data **C4** Computer Hackers	HT2 - HTML and CSS Programming Project I **Content covered, including knowledge and skills:** **Core Lessons** **C1** Website Foundations **C2** Text Formatting **C3** Adding Images and Links

	Expansion Lessons **E1** Phishing and Online Scams **Links to British Values and SMSC** Students will learn about how they can be safe online on Social Media including knowing about their digital footprint, their privacy settings as well as being able to look at media critically in a world increasingly filled with AI generated content. **Career Opportunities** - Social Media Manager - Influencer - Cyber Security Analyst **Literacy: Key Words and Terminology** - Privacy - Cyberbullying - Authentication - Deepfake - Password	**Expansion Lessons** **E1** Impact of Cyber Attacks I **E2** Impact of Cyber Attacks II **Links to British Values and SMSC** Students will learn about different threats to their digital devices and their data as well as methods to protect their data from harm. They will also understand that Computer Hackers can also be security professionals who keep companies and the country safe from cyber threats. **Career Opportunities** - Cyber Security Analyst - Cyber Intelligence Officer **Literacy: Key Words and Terminology** - Ransomware - Phishing - Anti Malware - Ethical Hacker - Penetration Testing	**C4** Colour, Style and CSS **Expansion Lessons** **E1** The Div Tag **E2** Website Audio and Video **Links to British Values and SMSC** Students will learn the basics of using HTML and CSS in creating a website, they will be able to create a basic website with text, images and hyperlinks about various topics. **Career Opportunities** - Web Developer - UI Designer **Literacy: Key Words and Terminology** - Tag - Hyperlink - Alt Text - Style - Web Page

Spring 1	HT3 – Spreadsheets & MS Excel	HT3 – Data Science	HT3 - HTML and CSS Programming Project II
	Content covered, including knowledge and skills:	**Content covered, including knowledge and skills:**	**Content covered, including knowledge and skills:**
	Core Lessons **C1** Entering and Editing Data **C2** Formatting and Conditional Formatting **C3** Basic Formulae **C4** CountIf and VLookup	**Core Lessons** **C1** Decision Making **C2** Data Gathering Methods **C3** Data Reliability **C4** Making Recommendations	**Core Lessons** **C1** Creating a Cultural Food Website **C2** Testing and Feedback **C3** Project Evaluation
	Expansion Lessons **E1** Creating Pivot Tables & Charts **E2** Data Validation	**Expansion Lessons** **E1** Big Data and social media	**Links to British Values and SMSC** Students will expand on their knowledge gained from the previous half term in creating their websites by testing and collecting feedback for their websites as well as evaluating their performance.
	Links to British Values and SMSC Students will learn the importance of spreadsheets which are used heavily in the world of work. Students will gain knowledge of how to create basic data dashboards including using advanced formulae.	**Links to British Values and SMSC** Students will learn about how data can be used to make decisions in large businesses, how they can be gathered and how important collecting reliable data can be in making correct decisions.	**Career Opportunities** - Web Developer - UI Designer **Literacy: Key Words and Terminology** - Test Table - Erroneous - Feedback - User Experience - Evaluate
	Career Opportunities - Data Analyst - Accountant - Economist	**Career Opportunities** - Data Analyst - Accountant - Data Engineer **Literacy: Key Words and Terminology** - Reliability	

	- Entrepreneur **Literacy: Key Words and Terminology** - Cell - Formula - Formatting - Validation - Pivot Table	- Primary - Secondary - Qualitative - Quantitative	
Spring 2	HT4 - Computer Systems **Content covered, including knowledge and skills:** **Core Lessons** **C1** Input and Output Devices **C2** Computer Components **C3** Hardware and Software **C4** Boolean Logic - Truth Tables **Expansion Lessons** **E1** Boolean Logic **E2** Operating Systems **Links to British Values and SMSC** Students will learn about various components of computers and digital devices, how they work and why they are important in the creation of devices.	HT4 - Algorithms **Content covered, including knowledge and skills:** **Core Lessons** **C1** What is an Algorithm? **C2** Creating a Flow Chart **C3** Search Algorithms – Linear Search **Expansion Lessons** **E1** Search Algorithms – Binary Search **E2** Sorting Algorithms – Bubble Sort **Links to British Values and SMSC** Students will learn about the importance of Algorithms in the wider world and how we all think computationally. Students will be able to create simple algorithms and follow	HT4 - Ethics, Environmental Impacts and Emerging Technologies **Content covered, including knowledge and skills:** **Core Lessons** **C1** Autonomous Cars **C2** Wearable Technology **C3** Internet of Things (IoT) **C4** Extended Reality **Expansion Lessons** **E1** Cybernetic Implants **Links to British Values and SMSC** Students will learn about different emerging technologies and how they could affect us Ethically and Enviornmentally including autonomous vehicles and wearable technologies.

	They will also learn the basics of Boolean Logic and creating Truth Tables of simple Logic Circuits. **Career Opportunities** - Hardware Engineer - Software Developer - IT Technician **Literacy: Key Words and Terminology** - CPU - RAM - Open Source - Application - Boolean	the Linear Search algorithm to look through a list. **Career Opportunities** - Project Manager - Software Developer **Literacy: Key Words and Terminology** - Algorithm - Decomposition - Abstraction - Decision - Process	**Career Opportunities** - Ethics Manager - Compliance Officer **Literacy: Key Words and Terminology** - Consumables - Right to Repair - Digital Divide - Energy Efficiency - Ethical Issues
Summer 1	HT5 - Binary and Data Representation **Content covered, including knowledge and skills:** **Core Lessons** **C1** Base Conversion (Binary-Decimal) **C2** Base Conversion (Decimal-Binary) **C3** ASCII and Unicode **C4** Image Representation **Expansion Lessons** **E1** Storage Devices	HT5 - Python Programming I **Content covered, including knowledge and skills:** **Core Lessons** **C1** What is a Programming Language? **C2** Our First Python Program **C3** Syntax and Logic Errors **C4** Maths in Python **Expansion Lessons** **E1** Testing Programs	HT5 – App Development Part I **Content covered, including knowledge and skills:** **Core Lessons** **C1** Creating a Project Proposal **C2** Gantt Charts and Timescales **C3** Creating a Wireframe Design **Links to British Values and SMSC** Students will begin planning a project to create an application for a client. They will learn how to create a Project

	E2 Audio Representation **E3** Hexadecimal **Links to British Values and SMSC** Students will learn about different counting systems used in Computer Science as well as how Text and Images are represented using computers. **Career Opportunities** - Graphics Designer - Audio Engineer **Literacy: Key Words and Terminology** - Binary - Decimal - Character Set - Pixel - Resolution	**Links to British Values and SMSC** Students will begin learning the Python Programming Language and be able to create simple Python programs. They will understand that programming paradigms aren't just applicable to programming languages but spoken language and maths as well. **Career Opportunities** - Software Developer - QA Tester - Video Game Content Designer **Literacy: Key Words and Terminology** - Syntax - Integer - Float/Real - Modulus - Boundary/Extreme Data	Proposal, be able to create and follow timescale documents and be able to create a wireframe design document to meet client requirements. **Career Opportunities** - Project Manager - Project Planner - UI Designer **Literacy: Key Words and Terminology** - User Requirements - Constraints - Task Dependency - Milestone - Wireframe
Summer 2	HT6 – Artificial Intelligence (AI) **Content covered, including knowledge and skills:** **Core Lessons** **C1** The History of Artificial Intelligence **C2** Artificial Intelligence in Video Games **C3**	HT6 - Python Programming II **Content covered, including knowledge and skills:** **Core Lessons** **C1** Selection Statements **C2** Iteration Statements	HT6 – App Development Part II **Content covered, including knowledge and skills:** **Core Lessons** **C1** Creating a Prototype **C2** Testing and Feedback

	What is Generative Artificial Intelligence? **C4** Using GenAI Systems. **Expansion Lessons** **E1** Images & GenAI **E2** Machine Learning **Links to British Values and SMSC** Students will learn about Artificial Intelligence, a technology that is fast becoming an essential part of Computer Science. Students will learn about the history of AI and where it came from and relate AI to topics they are aware of such as Video Games. **Career Opportunities** - AI Analyst - AI Researcher - AI Engineer **Literacy: Key Words and Terminology** - Turing Test - Finite State Machine - Goal Oriented Action Planning - Generative AI - Machine Learning	**C3** Arrays and Lists **C4** Random Number Generation **Expansion Lessons** **E1** Testing Programs **E2** Subroutines **Links to British Values and SMSC** Students will expand upon the previous half term's content by creating Python programs using more complex programming paradigms including selection, iteration and arrays. **Career Opportunities** - Software Developer - QA Tester - Video Game Content Designer **Literacy: Key Words and Terminology** - Selection - Iteration - Array - Index - Subroutine	**C3** Project Evaluation **Links to British Values and SMSC** Students will build upon content learned in the previous half term to develop their application project, test it and also to write an evaluation of how the project went. **Career Opportunities** - Project Manager - Project Planner - UI Designer **Literacy: Key Words and Terminology** - Prototype - Questionnaire - Ease of Use - Test Table - Improvements