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| Okehampton College Curriculum Overview: KS3 Computer Science 2022 -2023 | Updated June 2022 by LJD |
|   |  |   |
| Half Term | Year 7 | Year 8 | Year 9 |
| 1 | **Introduction*** Log in and file management
* Literacy assessments
* Cat4 testing

**History of computer Science*** Research skills
* Presentation formatting
 | **Esafety:** * Healthy and unhealthy relationship behaviours online
* Safeguarding first

**Programming IV: Python*** Writing algorithms
* Data types
* String functions
* Selection
* Iteration
* Subroutines

**Website design*** Understanding HTML
* Understanding CSS
 | **Esafety:*** Healthy and unhealthy relationship behaviours online
* Safeguarding first

**Impacts of digital technology*** Ethical and Cultural issues
* Environmental issues
* Legislation and privacy
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| 2 | **eSafety*** Social networking
* Keeping your data safe
* Using email
* Searching the web
* Plagiarism rules

**PowerPoint*** Creating slides – The Master Slide
* Creating a theme that keeps your slides consistent – who is your target audience?
* Adding images
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| 3 | **Inside the computer*** Hardware / software
* Computer components
* The CPU
* Primary / secondary storage devices
* Binary numbers - Binary to denary
 | **Spreadsheets II*** Recap on business modelling
* Using the IF function
* Using lookup tables
* Validation
 | **App development - for iphone, Android, Windows or Blackberry*** Introduction to Apps
* Home Screen and navigation
* Adding files, links and images
* Using map functions
* Programming with Blockly
* Publishing your App
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| 4 | **Programming II: Pivot*** Storyboarding
* Character design
* Development from storyboard to animation
* Responding to user feedback
 | **Data representation** * Bits and Bytes
* Binary to denary recap
* Denary to binary
* ASCIll
* Hexadecimal
 | **Programming: developing Python** * Loops
* Lists
* Procedures
* Functions
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| 5 | **Spreadsheets I*** Creating a computer model
* Using formulae
* Conditional formatting
* Charts
 | **Business – 4 Ps*** Product
* Place
* Promotion
* Price
 | **Control systems with Flowol*** Flowcharts
* Sequencing
* Sensors
* Subroutines
* Actuators
* Variables

**Graphic design Blender** * Intro to 3D design
* Navigating the Blender interface
* The Viewport and viewing 3D space
* Transforming objects
* Translating objects
* The various viewport modes
* Building scenes
* Colours and Textures
* Box Modelling
* Extrusion
* Loop Cuts
* Bevels and Chamfers
* Animation and armatures
* 3D printing (control systems and 3D models for prints
 |
| 6 | **Programming I: Scratch*** Movement & sprite behaviour
* Lives & scoring
* Adding a new level
* Adding sounds

**Programming III: Kodu*** Creating landscapes
* Navigation and Pathing
* Clones vs Creatables
* Pages and selection

**E safety Booster** Social media and how to get help | **Systems Architecture** * Architecture of the CPU
* CPU performance
* Memory
* Secondary Storage
* Logic Gates

**BBC Microbit** * Intro to physical computing
* Sensors and what they can tell us
* Random number generation
* Wearables and ubiquitous computing
* Embedded systems

**E safety Booster**Social media and how to get help |