|  | **Computer Science** | **Information Technology** | **Digital Literacy** | **Year 7** | **Year 8** | **Year 9** |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **CS 1.1:** I understand what an Algorithm is**CA 1.2:** I can create simple programs in Scratch | * I can use technology purposefully to create digital content
* I can save my work properly into folders
* I can save images from the internet
* Use technology purposefully to retrieve digital content
 | * I Use technology safely
* I know how to keep information private
* I Keep personal information private
* I know how technology can be used outside of school
 | **101** |  |  |
| **2** | **CS 2.1:** Understand that algorithms are implemented as programs on digital devices**CS 2.2:** Understand that programs execute by following precise and unambiguous instructions**CS 2.3:** I can fix errors (debug) errors in computer programs I make**CS2.4:** Use logical reasoning to predict the behaviour of simple programs | * I can save and store files into meaningful folders with suitable file names to keep my user area organised
* Use technology purposefully to manipulate digital content
* I know that computers have different input and output devices and can use them
* I know that a variety of digital devices can be classed as a computer
 | * Use technology respectfully
* Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies
 | **101** |  |  |
| **3** | **CS 3.1:** I can write programs in Scratch that accomplish specific goals**CS 3.2:** I can use sequence in programs such as “If” and “Else”**CS 3.3:** Work with various forms of input**CS 3.4:** Work with various forms of output | * I can search the internet effectively using suitable keywords and operators
* I can use a variety of software programs to produce my work and complete projects
* I can collect information
* I can design and create content
* I can present information
 | * I use technology responsibly
* I can Identify a range of ways to report concerns about contact online
 | **102** | **101** |  |
| **4** | **CS 4.1:** Design programs that can accomplish specific goals**CS 4.2:** Design and create program in Scratch or Python**CS 4.3:** I can fix errors in my programs that accomplish specific goals**CS 4.4:** I can create programs that contain basic loops**CS 4.5:** Use logical reasoning to detect and correct errors in programs**CS 4.6:** I understand how computer networks can provide multiple services, such as the world wide web**CS 4.6:** I know how search results are selected | * Select a variety of software to accomplish given goals
* Select, use and combine internet services

Analyse information* I can evaluate the information that I get to use in my work
* I can collect suitable data for my work
* I can present data, such as using graphs
 | * I Understand the opportunities computer networks offer for communication
* I can Identify a range of ways to report concerns about content online
* I can Recognize acceptable / unacceptable behaviour
 | **103** | **102** | **101** |
| **5** | CS 5.1: I can solve problems by decomposing them into smaller parts**CS 5.2:** I can work with variables**CS 5.3:** I can explain logically how some simple algorithms work**CS 5.4:** I use logical reasoning to detect and correct errors in algorithms* Understand computer networks including the internet and what they’re for
* I understand how search results are ranked
 | * I can use more than one piece of software to accomplish given goals/tasks.
* I can select use and combine software on a range of digital devices
* I can Analyse data
* I can Evaluate data
* I can Design and create systems
 | * I Understand the opportunities computer networks offer for collaboration
* I can effectively evaluate digital content and know what is plausible.
 | **104** | **103** | **102** |
| **6** | * I can use a programming language to solve computational problems
* Understand simple Boolean logic
* Understand how numbers can be represented in binary
* Understand how text can be represented digitally in the form of binary digits
* Understand how pictures can be represented digitally in the form of binary digits
 | * Undertake creative projects with challenging goals
* Use multiple [Work with] applications across a range of devices
* I can effectively and carefully collect data for my work
* I can list various computer hardware components associated with networks
* Understand the hardware components that make up computer systems
 | * Understand a range of ways to use technology respectfully
* Recognise inappropriate content
* Recognise inappropriate contact
* Recognise inappropriate behaviour
* I know how to report concerns

Reuse digital artefacts for a given audienceAttend to usability of digital artefacts* Understand a range of ways to use technology safely
 |  | **104** | **103** |
| **7** | * Evaluate computational abstractions (effectiveness of code for example)
* Use at least one additional programming language (that must be textual) to solve real world problems (such as Python)
* Make use of appropriate data structures
* Design modular programs that use procedures or functions
* Understand uses of Boolean logic in programming
* Be able to carry out simple operations on binary numbers such as addition
* Understand the software components that make up computer systems, such as Operating systems
* I Understand how instructions are stored by computer systems
* I Understand how text can be manipulated digitally in the form of binary digits
* I Understand how sounds can be represented digitally in the form of binary digits
* Understand how pictures can be manipulated digitally in the form of binary digits
 | * Combine multiple applications to achieve challenging goals
* I know how to analyse data
* I can meet the needs of my audience when producing my project work.
* I can list and explain the purpose of hardware associated with computer networks
 | * I can improve digital artefacts for a given audience
* Attend to trustworthiness of digital artefacts
* I know/can protect my online identity
* I know how and can protect my online privacy.
 |  |  | **104** |
| **8** | * I can model behaviour of physical systems such as networks
* Use logical reasoning to compare the utility of alternative algorithms for the same problem
* Develop modular programs that use procedures or functions
* Understand uses of Boolean logic in circuits
* Understand how computer systems components communicate with one another
* Understand how computer systems communicate with other systems
* I Understand how instructions are executed by computer systems
* I Understand how sounds can be manipulated digitally in the form of binary digits
 | * I can create digital artefacts for a given audience
* I Select multiple applications to achieve challenging goals
 | * Repurpose digital artefacts for a given audience
* Attend to design of digital artefacts
* Understand a range of ways to use technology securely
* Understand a range of ways to use technology responsibly
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