Copplestone Computing Curriculum
Year 6

Overview and Small Steps					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing systems and networks – Communication and collaboration *(CS and IT)* 1. To explain the importance of internet addresses 2. To recognise how data is transferred across the internet 3. To explain how sharing information online can help people to work together 4. To evaluate different ways of working together online 5. To recognise how we communicate using technology 6. To evaluate different methods of online communication	Creating media – Web page creation *(CS and DL)* 1. To review an existing website and consider its structure 2. To plan the features of a web page 3. To consider the ownership and use of images (copyright) 4. To recognise the need to preview pages 5. To outline the need for a navigation path 6. To recognise the implications of linking to content owned by other people	Programming A- Variables in games *(CS, DL and IT)* 1. To define a 'variable' as something that is changeable 2. To explain why a variable is used in a program 3. To choose how to improve a game by using variables 4. To design a project that builds on a given example 5. To use my design to create a project 6. To evaluate my project	Data and information – Spreadsheets *(IT)* 1. To create a data set in a spreadsheet 2. To build a data set in a spreadsheet 3. To explain that formulas can be used to produce calculated data 4. To apply formulas to data 5. To create a spreadsheet to plan an event 6. To choose suitable ways to present data	Creating media – 3D Modelling *(DL and IT)* 1. To recognise that you can work in three dimensions on a computer 2. To identify that digital 3D objects can be modified 3. To recognise that objects can be combined in a 3D model 4. To create a 3D model for a given purpose 5. To plan my own 3D model 6. To create my own digital 3D model	Programming B – Sensing movement *(CS and IT)* 1. To create a program to run on a controllable device 2. To explain that selection can control the flow of a program 3. To update a variable with a user input 4. To use a conditional statement to compare a variable to a value 5. To design a project that uses inputs and outputs on a controllable device 6. To develop a program to use inputs and outputs on a

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					controllable device
To develop a program to use inputs and outputs on a controllable device	https://teachcomputing.org/curriculum/key-stage-2/creating-media-web-page-creation	https://teachcomputing.org/curriculum/key-stage-2/programming-a-variables-in-games	https://teachcomputing.org/curriculum/key-stage-2/data-and-information-spreadsheets	https://teachcomputing.org/curriculum/key-stage-2/creating-media-3d-modelling	https://teachcomputing.org/curriculum/key-stage-2/programming-b-sensing

National Curriculum links

Computer Science (CS) – foundation understanding – How computers and computer systems work and how they are designed and programmed.

Information Technology (IT) – using their understanding, applying- The purposeful use of existing programs to develop products and solutions.

Digital Literacy (DL) – implications- The skills, knowledge and understanding needed in order to participate fully and safely.

Computational Thinking – threaded throughout computer science, information technology and digital literacy.

Vocabulary For Year Group

Red is new vocabulary for year group.

Algorithm - A precise set of ordered steps that can be followed by a human or a computer to achieve a task.

Attribute – A word or a phrase that can be used to describe an object such as its colour, size, or price.

Code - The commands that a computer can run.

Code snippet – A section of a program viewed in isolation.

Command - A single instruction that can be used in a program to control a computer.

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Computer - A programmable machine that accepts and processes inputs and produces outputs (input, process, output; IPO).

Computer Network – A group of interconnected computing devices.

Computer systems - A combination of hardware and software that can have data input to it, which it then processes and outputs. It can be programmed to perform a variety of tasks.

Condition – A statement that can be either True or False.

Condition-controlled loop - A command that repeatedly runs a defined section of code until a condition is met.

Count-controlled loop - A command that repeatedly runs a defined section of code a predefined number of times.

Data - A letter, word, number etc. that has been collected for a purpose, but stored without context.

Data set – A collection of related data.

Debugging - The process of finding and correcting errors in a program.

Decompose – To break down a task into smaller, more achievable steps.

Digital Device - A computer or a device with a computer inside that has been programmed for a specific task.

Domain name - The part of a website's URL that is user friendly and identifies that it is under the control of a particular person or organisation e.g. raspberrypi.org.

HTML (HyperText Markup Language) - A standardised language used to define the structure of web pages.

Infinite loop - A command that repeatedly runs a defined section of code indefinitely.

Information - Data put into a context that provides meaning.

Input – Data that is sent to a program to be processed.

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Input device - A piece of hardware used to control, or send data to, a computer.

Internet – The global systems of interconnected computer networks.

Loop - (Count-controlled, condition-controlled, or infinite) Commands that repeatedly run a defined section of code.

Output – The result of data processed by a computer.

Output device - A piece of hardware that is controlled by outputs from a computer.

Procedure - A named set of commands that can be called multiple times throughout a program. This type of subroutine does not return a value.

Process- A program, or part of a program, that is running on a computer.

Program - A set of ordered commands that can be run by a computer to complete a task.

Repetition - Part of a program where one or more commands are run multiple times in a loop.

Run (execute) – To action the commands in a program.

Selection - Part of a program where if a condition is met, then a set of commands is run.

Subroutine - A named sequence of commands designed to perform a specific task.

Switch - A device that manages the flow of data packets within a computer network.

URL (Uniform Resource Locator) - The address of a file on the internet.

Variable - A named piece of data (often a number or text) stored in a computer's memory, which can be accessed and changed by a computer program.

Web address - The address of a file on the internet.

Web browser - A program used to view, navigate, and interact with web pages.

Web page - A HTML document viewed using a web browser

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Website – A collection of interlinked web pages, stored under a single domain.

WiFi - A technology that allows devices to wirelessly access a network and transfer data.

WAP (Wireless Access Point) - A network device that allows wireless computing devices to connect to a wired network.

WWW (World Wide Web) - A service provided via the internet that allows access to web pages and other shared files.