



# Coppelstone Computing Curriculum

## Year 3

### Overview and Small Steps

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Computing systems and networks – Connecting computers (<i>CS and IT</i>)</p> <ol style="list-style-type: none"> <li>1. To explain how digital devices function</li> <li>2. To identify input and output devices</li> <li>3. To recognise how digital devices can change the way we work</li> <li>4. To explain how a computer network can be used to share information</li> <li>5. To explore how digital devices can be connected</li> <li>6. To recognise the physical components of a network</li> </ol>	<p>Creating media – Stop-frame animation (<i>DL and IT</i>)</p> <ol style="list-style-type: none"> <li>1. To explain that animation is a sequence of drawings or photographs</li> <li>2. To relate animated movement with a sequence of images</li> <li>3. To plan an animation</li> <li>4. To identify the need to work consistently and carefully</li> <li>5. To review and improve an animation</li> <li>6. To evaluate the impact of adding other media to an animation</li> </ol>	<p>Programming A – sequencing sounds (<i>CS and IT</i>)</p> <ol style="list-style-type: none"> <li>1. To explore a new programming environment</li> <li>2. To identify that commands have an outcome</li> <li>3. To explain that a program has a start</li> <li>4. To recognise that a sequence of commands can have an order</li> <li>5. To change the appearance of my project</li> <li>6. To create a project from a task description</li> </ol>	<p>Data and information – Branching databases (<i>DL and IT</i>)</p> <ol style="list-style-type: none"> <li>1. To create questions with yes/no answers</li> <li>2. To identify the attributes needed to collect data about an object</li> <li>3. To create a branching database</li> <li>4. To explain why it is helpful for a database to be well structured</li> <li>5. To plan the structure of a branching database</li> <li>6. To independently create an identification tool</li> </ol>	<p>Creating media – Desktop publishing (<i>IT and DL</i>)</p> <ol style="list-style-type: none"> <li>1. To recognise how text and images convey information</li> <li>2. To recognise that text and layout can be edited</li> <li>3. To choose appropriate page settings</li> <li>4. To add content to a desktop publishing publication</li> <li>5. To consider how different layouts can suit different purposes</li> <li>6. To consider the benefits of desktop publishing</li> </ol>	<p>Programming B – Events and actions in programs (<i>CS and IT</i>)</p> <ol style="list-style-type: none"> <li>1. To explain how a sprite moves in an existing project</li> <li>2. To create a program to move a sprite in four directions</li> <li>3. To adapt a program to a new context</li> <li>4. To develop my program by adding features</li> <li>5. To identify and fix bugs in a program</li> <li>6. To design and create a maze-based challenge</li> </ol>
<a href="https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-connecting-computers/how-does-a-digital-device-work">https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-connecting-computers/how-does-a-digital-device-work</a>	<a href="https://teachcomputing.org/curriculum/key-stage-2/creating-media-animation">https://teachcomputing.org/curriculum/key-stage-2/creating-media-animation</a>	<a href="https://teachcomputing.org/curriculum/key-stage-2/programming-a-sequence-in-music">https://teachcomputing.org/curriculum/key-stage-2/programming-a-sequence-in-music</a>	<a href="https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases">https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases</a>	<a href="https://teachcomputing.org/curriculum/key-stage-2/creating-media-desktop-publishing">https://teachcomputing.org/curriculum/key-stage-2/creating-media-desktop-publishing</a>	<a href="https://teachcomputing.org/curriculum/key-stage-2/programming-b-events-and-actions">https://teachcomputing.org/curriculum/key-stage-2/programming-b-events-and-actions</a>



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### 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.

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.



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

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

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

Information - Data put into a context that provides meaning.

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

Output – The result of data processed by a computer.

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.

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

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