



# Coppelstone Computing Curriculum

## Year 1

### Overview and Small Steps

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Computing systems and networks- Technology around us (<i>DL and IT</i>)</p> <ol style="list-style-type: none"> <li>1. To identify <b>technology</b></li> <li>2. To identify a <b>computer</b> and its main parts</li> <li>3. To use a mouse in different ways</li> <li>4. To use a keyboard to type on a computer</li> <li>5. To use the keyboard to edit text</li> <li>6. To create rules for using technology responsibly</li> </ol>	<p>Creating media – Digital painting (<i>IT</i>)</p> <ol style="list-style-type: none"> <li>1. To describe what different freehand tools do</li> <li>2. To use the shape tool and the line tools</li> <li>3. To make careful choices when painting a digital picture</li> <li>4. To explain why I chose the tools I used</li> <li>5. To use a computer on my own to paint a picture</li> <li>6. To compare painting a picture on a computer and on paper</li> </ol>	<p>Programming A – Moving a robot (<i>CS</i>)</p> <ol style="list-style-type: none"> <li>1. To explain what a given <b>command</b> will do</li> <li>2. To act out a given word</li> <li>3. To combine forwards and backwards commands to make sequences</li> <li>4. To combine four direction commands to make sequences</li> <li>5. To plan a simple <b>program</b></li> <li>6. To find more than one solution to a problem</li> </ol>	<p>Data and information – Grouping Data (<i>IT and DL</i>)</p> <ol style="list-style-type: none"> <li>1. To label <b>objects</b></li> <li>2. To identify that objects can be counted</li> <li>3. To describe objects in different ways</li> <li>4. To count objects with the same <b>properties</b></li> <li>5. To compare groups of objects</li> <li>6. To answer questions about groups of objects</li> </ol>	<p>Creating media – Digital writing (<i>IT</i>)</p> <ol style="list-style-type: none"> <li>1. To use a computer to write</li> <li>2. To add and remove text on a computer</li> <li>3. To identify that the look of text can be changed on a computer</li> <li>4. To make careful choices when changing text</li> <li>5. To explain why I used the tools that I chose</li> <li>6. To compare typing on a computer to writing on paper</li> </ol>	<p>Programming B – Programming animations (<i>CS</i>)</p> <ol style="list-style-type: none"> <li>1. To choose a command for a given purpose</li> <li>2. To show that a series of commands can be joined together</li> <li>3. To identify the effect of changing a value</li> <li>4. To explain that each sprite has its own instructions</li> <li>5. To design the parts of a project</li> <li>6. To use my <b>algorithm</b> to create a program</li> </ol>
<a href="https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-technology-around-us">https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-technology-around-us</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-painting">https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-painting</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/programming-a-moving-a-robot">https://teachcomputing.org/curriculum/key-stage-1/programming-a-moving-a-robot</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/data-and-information-grouping-data">https://teachcomputing.org/curriculum/key-stage-1/data-and-information-grouping-data</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-writing">https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-writing</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/programming-b-introduction-to-animation">https://teachcomputing.org/curriculum/key-stage-1/programming-b-introduction-to-animation</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

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

**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).

**Object** - Something that can be named and has other attributes (properties), which can be labelled.

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

**Property (attribute)** - A word or a phrase that can be used to describe an object such as its colour, size, or price.

**Technology** - The use of scientific knowledge for practical purposes.