



# Coppelstone Computing Curriculum

## Year 2

### Overview and Small Steps

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Computing systems and networks- IT around us (<i>IT and DL</i>)</p> <ol style="list-style-type: none"> <li>1. To recognize the uses and features of information technology</li> <li>2. To identify the uses of technology in the school</li> <li>3. To identify information technology beyond school</li> <li>4. To explain how to use information technology safely</li> <li>5. To recognize that choices are made when using information technology</li> </ol>	<p>Creating media – Digital photography (<i>IT and DL</i>)</p> <ol style="list-style-type: none"> <li>1. To make a digital device take a photograph</li> <li>2. To make choices when taking a photograph</li> <li>3. To describe what makes a good photograph</li> <li>4. To decide how photographs can be improved</li> <li>5. To use tools to change an image</li> <li>6. To recognize that photos can be changed</li> </ol>	<p>Programming A – Robot algorithms (<i>CS and DL</i>)</p> <ol style="list-style-type: none"> <li>1. To describe a series of instructions as a sequence</li> <li>2. To explain what happens when we change the order of instructions</li> <li>3. To use logical reasoning to predict the outcome of a program</li> <li>4. To explain that programming projects can have code and artwork</li> <li>5. To design an algorithm</li> <li>6. To create and debug a program that I have written</li> </ol>	<p>Data and Information – Pictograms (<i>IT and DL</i>)</p> <ol style="list-style-type: none"> <li>1. To recognise that we can count and compare objects using tally charts</li> <li>2. To recognise that objects can be represented as pictures</li> <li>3. To create a pictogram</li> <li>4. To select objects by attribute and make comparisons</li> <li>5. To recognise that people can be described by attributes</li> <li>6. To explain that we can present information using a computer</li> </ol>	<p>Creating media – Digital Music (<i>IT</i>)</p> <ol style="list-style-type: none"> <li>1. To say how music can make us feel</li> <li>2. To identify that there are patterns in music</li> <li>3. To experiment with sound using a computer</li> <li>4. To use a computer to create a musical pattern</li> <li>5. To create music for a purpose</li> <li>6. To review and refine our computer work</li> </ol>	<p>Programming B – Programming quizzes (<i>CS and IT</i>)</p> <ol style="list-style-type: none"> <li>1. To explain that a sequence of commands has a start</li> <li>2. To explain that a sequence of commands has an outcome</li> <li>3. To create a program using a given design</li> <li>4. To change a given design</li> <li>5. To create a program using my own design</li> <li>6. To decide how my project can be improved</li> </ol>
<a href="https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-it-around-us">https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-it-around-us</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-photography">https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-photography</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/programming-a-robot-algorithms">https://teachcomputing.org/curriculum/key-stage-1/programming-a-robot-algorithms</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/data-and-information-pictograms">https://teachcomputing.org/curriculum/key-stage-1/data-and-information-pictograms</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/creating-media-making-music">https://teachcomputing.org/curriculum/key-stage-1/creating-media-making-music</a>	<a href="https://teachcomputing.org/curriculum/key-stage-1/programming-b-an-introduction-to-quizzes">https://teachcomputing.org/curriculum/key-stage-1/programming-b-an-introduction-to-quizzes</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).

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

Information - Data put into a context that provides meaning

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



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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.

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

Technology - The use of scientific knowledge for practical purposes.