# Digital Technologies Progressions COMPUTATIONAL THINKING



## With Teacher Support l can.....

Break a simple task into smaller tasks (decomposition).

Create and/or follow and debug simple instructions in non computerised contexts or simple tasks (algorithmic thinking).

Idenitify (decompose) and **fix up** simple errors (bugs) in a sequence (algorithm).

Create and/or follow and debug simple instructions in computerised contexts (algorithmic thinking).

Think about who will follow my instructions (end users).

Years 0-3

### With Teacher Support l can.....

Create and/or follow **simple instructions** in **non computerised** and **computerised** contexts (algorithmic thinking).

Identify, decompose and **fix up/debug** errors in a sequence of instructions.

Understand that loops can be used to repeat a **sequence of command**s (algorithm).

Understand and create simple digital programs involving **inputs** and **outputs** in a sequence (algorithm).

Use a range of letters and symbols to represent instructions or code (arrows, R=right).

Years 4-6

Indentify who will follow the instructions (end users).

#### Independently

**I can** ..... Decompose a range of problems into step-by-step instructions to create algorithms for computer programs.

Debug my code accurately and efficiently.

Create a program based on an algorithm for a real world problem.

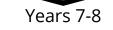
Explain choices I make and predict what the process will do.

Explain that a program has inputs and outputs and give examples.

Understand that there can be more than one solution to a problem and be able to evaluate which are better or worse than each other.

With support understand binary digits in a code.

Identify patterns in an algorithm and understand the process of repeat <u>loops.</u>\_\_\_\_



#### Independently I can .....

I can create, change, store, retrieve, share and test digital content.

I understand how digital devices affect individuals and society over time.

I understand the role of components in simple input-process-output systems.

I can recognise the human control role of devices.

I can follow a defined process to design, develop, store, test and evaluate digital content.

I can evaluate content to address a given context or issue and I can take into account the immediate social and ethical considerations.

I can take into account the end user considerations when completing.

I know it is my responsibility for the security and privacy of my storage device.

Years 9-10