



# Year 1 - Summer 2 - Computing Knowledge Organiser



## What I already know...

In Year 1 we have already had an insight into programming. We have learnt to choose a series of commands that can be run as a program. They explored giving the beebot a set of precise instructions to get to their desired end point. The children have learnt the importance of correctly building a set of commands in sequence. They saw first hand how brushing your teeth when the instructions are not in the correct sequence is not very effective!

## What I will learn...

- To begin to understand computer programming.
- To understand that algorithms are a set of clear, precise, and ordered instructions, and that a computer program is the implementation of an algorithm on a digital device.
- To create an algorithm.
- To begin to understand that there is a four step structure when creating a program. 'Task, Design, Code, Running the code'
- To begin to understand reading 'code' to predict what a program will do.

## Key Vocabulary

Task	What is needed.
Design	What it should do.
Code	How it is done.
Running the code	What it does.
Algorithm	A process or set of rules to be followed on an electrical device.
Program	A series of coded software instructions to control the operation of a computer or other machine.
Sprite	A stand alone computer graphic.

## How to be a Programmer...

### Disciplinary Knowledge: Computing skills I will learn...

- To be able to run a command on a device I can follow an instruction
- To be able to give directions I can find the commands
- To be able to move a sprite I can use commands to move a sprite

## Making a difference at The Merton

The children will be introduced to on-screen programming through ScratchJr. Children will explore the way a project looks by investigating sprites and backgrounds. They will use programming blocks to use, modify, and create programs. Children will be introduced to the early stages of program design through the introduction of algorithms. Children will retrieve and recall the knowledge of algorithms from last terms unit Moving a Robot. Children will explore how to move a 'sprite' and create an algorithm for each sprite. They will then learn to test the programs they have created. Throughout the unit the children will be asked to think about why it is important to learn about programming, how and where do we see programming in our everyday life? We will think about how programming makes a difference to peoples lives everyday for instance; allows us to create apps and software, build websites and online shops, play video games, publish e-books and much more.

