

# Woodley Primary School – Knowledge Organiser

**Computing Focus:**

Computer Science

Year 1

Ongoing

## Key Vocabulary

Spelling	Definition
Algorithm	A list of steps and rules to finish a task
Tinker	Change things and see what happens
Debugging	Finding and fixing problems in an algorithm or program
Program	An algorithm that has been coded into something that can be run by a machine
Click	Press the mouse button
Double-Click	Press the mouse button very quickly
Drag	Click your mouse button and hold as you move the mouse pointer to a new location
Drop	Release your mouse button to "let go" of an item that you are dragging
Bug	Part of a program that does not work correctly
Loop	The action of doing something over and over again
Repeat	Do something again
Event	An action that causes something to happen.

## Prior Knowledge

### What I should already know ...

EYFS:

- Use a variety of electronic toys in play situations (dance mats, Bee-Bots, remote control toys) using basic directional language
- Explore toys that simulate control devices e.g. traffic lights, scanner, microwave, cash tills
- Explore the commands needed to control a range of electronic toys
- Be aware of everyday devices that sense data e.g. bar codes, metal detectors, sound recorders, light sensors, automatic doors, thermometers
- Program a simple floor robot (Bee-Bot / Roamer) to carry out a short sequence of steps
- Respond to simple cause and effect devices (push a button to hear a sound)
- Play with a simple adventure program or simulation / role play software, and begin to compare reality with virtual world
- Respond appropriately to what happens in simulations and begin to notice that different responses result in different outcomes

## What I will know at the end of the unit

Objectives for the unit:

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions ☑ create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond school
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Key Skills and knowledge:

- Sequencing – directional language, clicking, dragging, dropping, simple algorithms using programmed directional language and debugging
- Events – create a story
- Loops – simple repeats
- Digital Citizenship – going places online safely following rules
- I can move a programmable toy in different directions, by giving and following instructions using directional language
- I can combine commands to follow a route
- I can explore outcomes when instructions are given in different orders
- I can explain what an algorithm is
- I can describe and write sequenced algorithms to complete specific tasks
- I can click, drag and drop when using digital devices

