Computing — Year 6 (Spring)

Binary, Variables and Decisions

Key vocabulary to remember and use in your learning

variable	the place in a computer system that stores something that can change, such as a score or number of lives
decision	a problem that can be posed as a yes or no question related to an input
procedure	instructions that tell a computer how to run
subroutine	a procedure that performs a specific task as part of an overall problem
physical system	we can write algorithms that interact with real-life objects—a physical system
simulate	modelling real-life events on a computer—in Flowol 4 we call it a mimic
sensor	a device that detects an input
binary	something with two parts, e.g. yes or no
binary code	a number system using 1s and 0s; all information stored in a computer is in binary code

Key knowledge to know and use

- A variable is a piece of information in a computer system that can be changed by a computer program (e.g. to keep score)
- They can be 'declared' at the beginning of a program and can be changed when a condition is met (e.g. number of lives and losing a life in a game)
- Variables can control outputs in a physical system
- Computers use binary code to represent a letter, number or other character
- You should plan your algorithms on paper and this can be done using flowcharts
- Understand that it is easy to edit images using computers, which can make it hard to tell the difference between truth and fake-news

Charles Babbage

Babbage was a British mathematician, an original and innovative thinker and a pioneer of computing. Charles Babbage was born on 26 December 1791, probably in London. The 1820s saw Babbage work on his 'Difference Engine', a machine which could perform mathematical calculations. A six-wheeled model was initially constructed and demonstrated to a number of audiences.

Raspberry Pi

The Raspberry Pi is a low cost, credit-card sized computer that plugs into a computer monitor or TV, and uses a standard keyboard and mouse. It is a capable little device that enables people of all ages to explore computing and to learn how to program in languages like Scratch and Python.

Online Safety—Fake News

Most people understand that we cannot always believe everything we read online. However, it is also the case that we cannot always believe what we see in a picture or photograph, as these can be edited or 'photoshopped'.