

# Computing — Year 3 (Spring)

## Understanding Algorithms and Making Things Happen—Loops

### Key vocabulary to remember and use in your learning

repetition	doing (repeating) a specific action again and again
loop	the name often given to repetition
forever loop	repeating something forever
count controlled loop	repeating something a given number of times
events	a change in the state of an object (e.g. a sprite) such as by clicking the mouse, a keyboard tap, using a touch screen, etc.
Scratch	a block-based coding language aimed at teaching children how to code
password	a series of letter, numbers or other keys that only you know that lets you onto a computer

### Online Safety—Passwords

A personal computer (including a tablet) can have a lot of personal information about us stored on it. You should protect this using a password. A good password is something that you can remember, but that other people could not guess.



### Ada Lovelace

Ada Lovelace wrote notes at the end of a paper written by Luigi Menabrea in 1843, which included the first algorithm designed for processing by an Analytical Engine. She is often recognized as history's first computer programmer.

### Key knowledge to know and use

- We can give basic commands in Scratch/Logo to make a sprite do something
- We use repetition in programs too, so that we don't have to keep writing the same instruction
- A count-controlled loop repeats an action a certain number of times
- A forever loop will continue to repeat an action until the program is stopped
- We can use a range of events to trigger actions in a program
- Secure passwords are important, and consider how to make them strong, such as by including a mix of letters, numbers and even using symbols (e.g. !\*£;?) and a mix of upper and lower case letters

### Deep Blue

Deep Blue was a chess-playing computer developed by IBM. It is known for being the first computer chess-playing system to win both a chess game and a chess match against a reigning world champion under regular time controls. A course on Deep Blue is part of the computer science curriculum at Stanford University.

