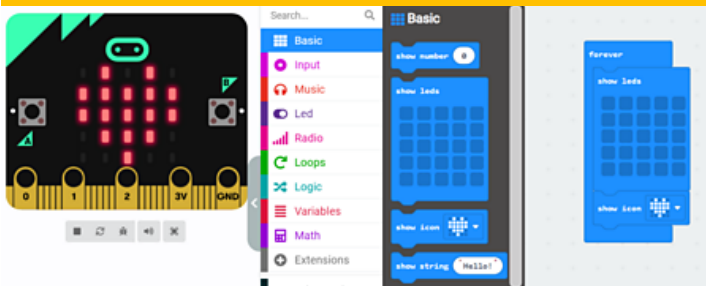# Year 6 - Spring - Computing Knowledge Organiser

What I already know...

- That a computing condition can only be true or false
- How to choose a condition to use in a program
- How to use a condition in an if... then... statement to start an action

What I will learn...

- To explain that a variable has a name and a value
- To identify a variable in an existing program
- How to use a simulator to test a program
- To use an operand in an if... then... statement
- To know that if you read a variable the value remains unchanged

Key Vocabulary

micro:bit	A pocket-sized computer that introduces you to how software and hardware work together
variable	A value that can change, depending on conditions or on information passed to the program
hardware	The micro:bit device itself and all the bits that make it up including the board, processors, sensors, pins, power supply and display
software	This can refer to the editors used to program the micro:bit and the programs running on the device itself.
MakeCode	An online editor for the micro:bit, that lets you drag and drop coloured blocks onto your workspace to construct programs and simulate how they behave on the micro:bit. You can also view the code as JavaScript.
flash	This is the process of uploading your compiled code to the micro:bit. The chip is updated each time, which is what we call flashing.
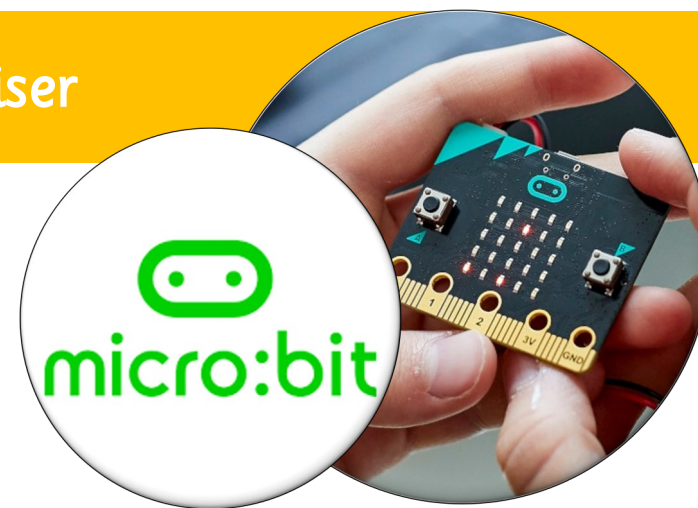
Making a difference at The Merton and beyond

The children will bring together their programming knowledge from using Scratch in Years 3, 4 and 5 in a new but familiar environment. The micro:bit is a device that has an LED light display, buttons, sensors and many input/output features that you can program and physically interact with. The children will use their programming knowledge and skills to create a working step counter.

How to be a programmer

Disciplinary Knowledge: Computing skills I will learn...

- To decide where in a program to set a variable
- To use a variable in a conditional statement to control the flow of a program
- How to use if... then... else... statements
- A range of approaches to find and fix bugs

Making a difference ● Knowledge & Appreciating the world ● Building character ● Building relationships ● Promoting health and wellness

Year 6 - Spring - Computing Knowledge Organiser

What I already know...

- How text and images can be manipulated to present different messages through desktop publishing

- How to search the internet safely and effectively
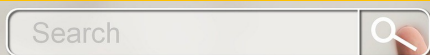
What I will learn...

- Know that websites are written in HTML

- Recognise the common features of a web page

- What is meant by the term 'fair use'

- How to find copyright-free images

- How to add content to a web page

- Describe why navigation paths are useful

- How to create hyperlinks

Key Vocabulary

HTML	HyperText Markup Language is the standard format for document designed to be displayed in a web browser.
Homepage	A homepage is essentially the cover to your website and guides people to other important information in the pages on the rest of your site.
Search bar	Where users can type in a word or phrase they're looking for more information about.
Link	Links allow website users to get from one web page to the next with a simple click. They can be in the form of text or an image.
Primary Navigation	Primary navigation is typically a list of prominent links toward the top of the page, with titles that help users
Dropdown menu	Dropdown menus reveal themselves when a user rolls over a primary navigation item.
Breadcrumb	A breadcrumb is essentially a trail at the top of any given web page that shows a user where that particular page lives within the site structure.

Making a difference at The Merton and beyond

The children will learn about websites and how to design and create a website for an Extreme Earth related topic that sparks their interest and passion. Through research and careful guidance, they will identify what makes a good webpage and use this information to design and evaluate their own website. be designed to enhance user experience.

Throughout the process, the children will pay close attention to copyright and the fair use of media and the aesthetics and navigability of their website.

How to be a web designer

Disciplinary Knowledge: Computing skills I will learn...

- To plan the features of a website

- How to find copyright-free images

- How to add content to a web page

The Merton Primary School
To be the best we can be.

# Year 6 - Spring - Computing Knowledge Organiser

What I already know...

- How to create simple programs in Scratch
- That a program has a start and follows a sequence of commands
- Ho to use count-controlled and infinite loops in programming

What I will learn...

- A variable is something changeable
- Variables can hold numbers (integers) or letters (strings)
- Variables are used in a program to store information
- Variables control the flow of a computer program
- Variables can be modified to change an existing program

Key Vocabulary

Variables	Names given to things we want a computer to remember e.g. scores
Repetition	Instructions that can be repeated until a condition is met
Condition	Something that is either true or false
Sequence	A set of instructions that are followed in order
Selection	A way to make choices in a computer program
Algorithm	Steps to follow to achieve a task
Debug	Finding and correcting errors
Input	A method of computers receiving information
Output	A response made by a computer to the user or input of data
Program	Instructions written in a language (code) that a computer can understand.
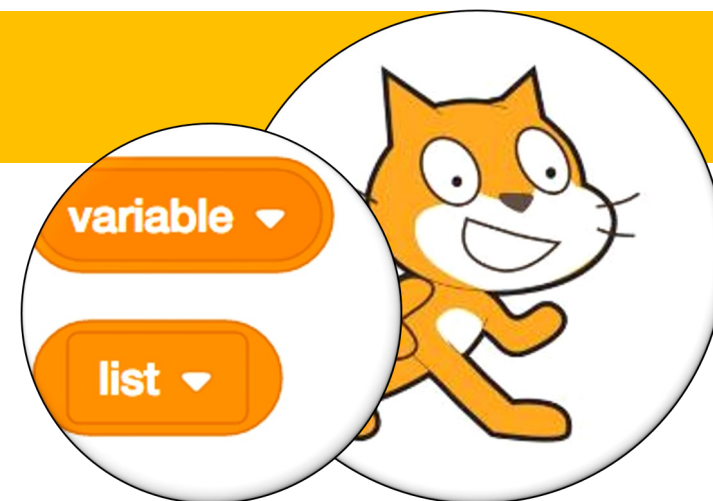
Making a difference at The Merton

Our computing unit will advance our programming skills by exploring the concept of variables in programming through games in Scratch. First, the children will learn what variables are, and relate them to real-world examples of values that can be set and changed. We will then use variables to create a simulation of a scoreboard. We will explore existing games in Scratch before modifying them and using them as inspiration to create and improve our own games using our knowledge of variables.

How to be a programmer

Disciplinary Knowledge: Computing skills I will learn...

- To choose how to improve a game by using variables
- To design, create and evaluate a project

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