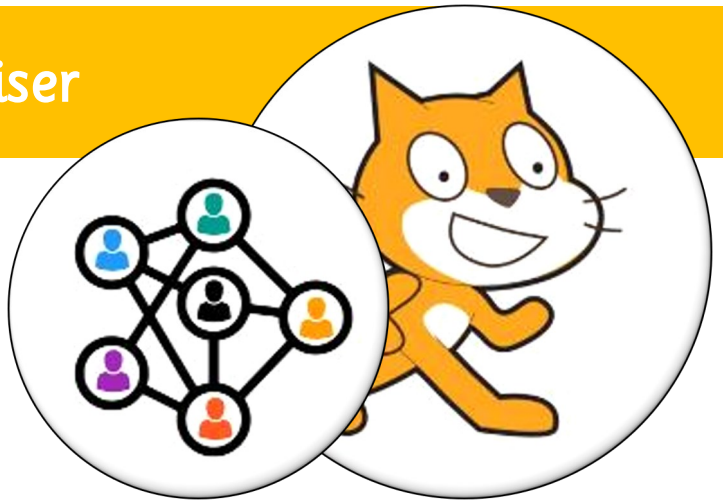
Year 3 - Spring - Computing Knowledge Organiser



What I already know...

- Understand what algorithms are and how they are implemented as programs on digital devices.
- That programs do things by following precise and unambiguous instructions
- How to create and debug simple programs
- To use logical reasoning to predict the behaviour of simple programs

What I will learn...

- How to create questions with yes / no answers
- How to create a branching database
- How to identify objects using a branching database
- Why it is important for a database to be well structured.
- That commands can be represented as blocks and that they have an outcome.
- Know that a program needs a start.
- Recognise that a sequence of commands has an order.
- How to change and amend a program or project.
- That debugging means to find a problem and correct it.
- How to create own project from the start.

Key Vocabulary

Branching database	A collection of data organized in a tree structure.
Pictogram	A pictorial representation of information
Attribute	A property of an object
Coding	The process of writing a computer program.
Commands	An instruction to a program to perform a specific task
Sprites	A computer image that can be moved on-screen

Computing Skills needed...programmer

Disciplinary Knowledge: Computing skills I will learn...

- Follow instructions to make a program work
- Type a short sequence of instructions
- Add and remove blocks to create own programs
- Identify when errors occur and debug the sequence
- Plan ahead when programming
- Read and understand databases
- Type data into simple software
- Write simple sets of questions to sort objects
- Sort and group using databases

Making a difference at The Merton and beyond

Children will develop their understanding of what a branching database is, how to create one and why they are useful! They will create physical and on-screen branching databases.

Finally, they will evaluate the effectiveness of branching databases and will decide what types of data should be presented this way.

Their second unit of work explores the concept of sequencing in programming through Scratch. It begins with an introduction to programming, which will be new to most learners. They will be introduced to a selection of motion, sound, and event blocks which they use to create their own programs, featuring sequences. The final project is to make a representation of a piano.