



St Andrew's C of E Maghull

Computing Knowledge Organiser

Year 4 – Autumn 1 - Coding



Key Knowledge

To know how to create an 'If/else' statement.

Understand what a variable is in programming.

To know how to set/change the variable values appropriately.

To interpret a flowchart that depicts an if/else flowchart.

To know how to use the Repeat Until command to make characters repeat actions.

To know how to create a program with a character that repeats action.

To make a character respond to user keyboard input.

To explain how they made their program change the number every second.

To know what decomposition and abstraction are in computer science.

To be able to take a real-life situation, decompose it and think about the level of abstraction.

To make good attempts to break down their aims for a coding task into smaller achievable steps.

To recognise the need to start coding at a basic level of abstraction to remove superfluous details from their program that do not contribute to the aim of the task.

Vocabulary

Action Types of commands, which are run on an object. They could be used to move an object or change a property.

Alert This is a type of output. It shows a pop-up of text on the screen.

Command A single instruction in a computer program

Debug/Debugging Looking for any problems in the code, fixing and testing them.

If A conditional command. This tests a statement. If the condition is true, then the commands inside the block will be run.

If/Else A conditional command. This tests a statement. If the condition is true, then the commands inside the 'if block' will be run. If the condition is not met, then the commands inside the 'else block' are run.

Objects Types The visual components within 2Code that have different properties and different actions to respond to events.

Repeat This command can be used to make a block of commands run a set number of times or forever.

Selection This is a conditional/decision command. When selection is used, a program will choose a different outcome depending on a condition.

Timer Use this command to run a block of commands after a timed delay or at regular intervals.

Variable A named area in computer memory. A variable has a name and a value. The program can change this variable value.

Lesson Sequence

Lesson 1 – I can review coding vocabulary and knowledge.
I can create a simple computer program.

Lesson 2 – I can begin to understand **selection** in computer programming.
I can understand how an **IF statement** works.

Lesson 3 – I can understand how to use **co-ordinates** in computer programming.
I can understand how an **IF statement** works.

Lesson 4 – I can understand the Repeat until command.
I can begin to understand **selection** in computer programming.
I can understand how an **IF/ELSE statement** works.

Lesson 5 – I can understand what a **variable** is in programming.
I can use a number **variable**.

Lesson 6 – I can review vocabulary and concepts learnt in Year 4 Coding.
I can create a playable game.