

SUBJECT: Computing

UNIT: Scratch



All computer programs are designed with three key programming constructs in mind: **sequence, selection and iteration**. This unit introduces you to these constructs using Scratch and a range of block-based programming activities. Understanding them will make you a better problem-solver, both in everyday life and as a computer programmer.

Scratch is a program that allows you to piece blocks of code together to solve problems. It is a block-based programming language because you do not need to type any code.

New blocks:

The 'say' block makes the cat say whatever is in the white area for as long as you specify.

The 'join' block is used to join text together with variables. This is called **concatenation**.

You can combine the 'say' block and the 'join' block. This line of code would **output** The final number you entered was: and then the value that is stored in the number variable.

Multiple 'join' blocks can be used to join together multiple strings and variables.

CONDITION CHECK: this is what is being checked.

DO IF TRUE: This is what the program will do if the condition is True.

DO IF FALSE: This is what the program will do if the condition is False.

If-else statements will perform one action if the condition is **True** and another if it is **False**. They will not perform both actions.

FIRST CONDITION CHECK: this is what is being checked first.

DO IF TRUE: This is what the program will do if the first condition is True.

SECOND CONDITION CHECK: This is what the program will do if the first condition is False. It will check a second condition.

DO IF TRUE: This is what the program will do if the first condition is False and the second condition is True.

DO IF FALSE: This is what the program will do if the first condition is False and the second condition is False.