



Year 3 Computing Autumn Term Coding

Key Learning

To design algorithms using flowcharts.

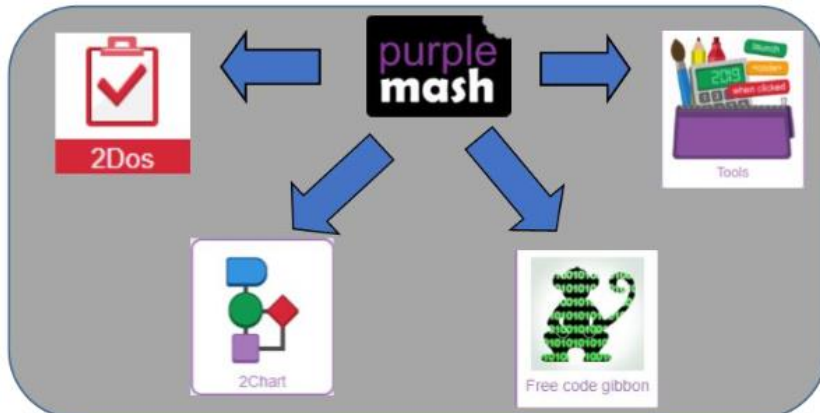
To design an algorithm that represents a physical system and code this representation.

To use selection in coding with the 'if' command.

To understand and use variables in 2Code.

To deepen understanding of the difference between timers and repeat commands.

Key Resources



Key Vocabulary

Action	Types of commands, which are run on an object. They could be used to move an object or change a property.
Algorithm	A precise step by step set of instructions used to solve a problem or achieve an objective.
Command	A single instruction in a computer program.
Control	These commands determine whether parts of the program will run, how often and sometimes, when.
Debug/Debugging	Looking for any problems in the code, fixing and testing them.
Event	Something that causes a block of code to be run.
If	A conditional command. This tests a statement. If the condition is true, then the commands inside the block will be run.
Repeat	This command can be used to make a block of commands run a set number of times or forever.
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.

9 hours over Autumn Term

2 Type Activity

Online Safety

Safe Passwords

Online Safety

Blogs

Coding: Lesson 1

To review coding vocabulary that relates to Object, Action, Output, Control and Event.
To use 2Chart to represent a sequential program design.
To use the design to write the code for the program.

Coding: Lesson 2

To design and write a program that simulates a physical system.

Coding: Lesson 3

To look at the grid that underlies the design and relate this to X and Y properties.
To introduce selection in their programming by using the if command.
To combine a timer in a program with selection.

Coding: Lesson 4

To understand what a variable is in programming.
To use a variable to create a timer.

Coding: Lesson 5

To create a program with an object that repeats actions indefinitely.
To use a timer to make characters repeat actions.
To explore the use of the repeat command and how this differs from the timer.

Coding: Lesson 6

To know what debugging means.
To understand the need to test and debug a program repeatedly.
To debug simple programs.
To understand the importance of saving periodically as part of the code development process.