Year 6 – Coding Purple Mash 2Code

PURPLE

Algorithm - a precise step by step set of instructions used to solve a problem or achieve an objective.

Bug - A problem in a computer program that stops it working the way it was designed.

Code Design – Design what a program will look like and what it will do.

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.

Sequence - This is when a computer program runs commands in order. In 2Code this can also include "repeat" or a timer.

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

IMPORTANT FACTS

Code is a set of instructions (or rules) that computers can understand; it might be helpful to think of code as a recipe.

People write code, code powers computers and computers power many everyday objects like phones, watches, microwaves and cars.

Many coding languages share similar basic features.

A text file written in a particular programming language is called a program (think a set of instructions).

There are many names for people who code: coders, programmers, developers, computer scientists, software engineers, etc.

Sequence of learning:

- Design programs using a choice of objects, attributing specific actions to each using programming knowledge.
- Explore the options for getting text input from the user in 2Code.
- Use functions and understand why they are useful in 2Code.
- Use flowcharts and create a simulation of a room in which devices can be controlled.
- Explore how 2Code can be used to make a text-based adventure game.

Final outcome:

Use 2Code to make a text-based adventure game. The games simulate environments in which players use text commands to control characters and influence the environment. A bit like computer versions of the 'Choose your own adventure' books but often with puzzles to solve.
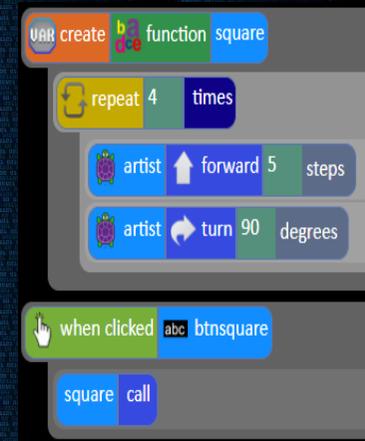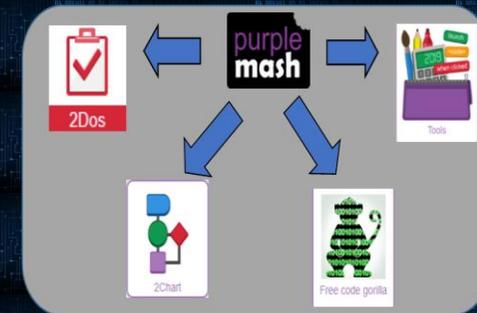
Key Skills

Use the program design process, including flowcharts, to develop algorithms for more complex programs using and understanding of abstraction and decomposition to define the important aspects of the program.

Code, test and debug from these designs.

Use functions and tabs in 2Code to improve the quality of the code.

Code user interactivity using input functions.