Purple Mash Computing Scheme: Knowledge Organiser

Year 2
Coding

Key Learning

- To create a computer program using an algorithm.
- To understand ways that the collision detection event can be used in a program.
- To design a program that follows a timed sequence.
- To understand that different objects have different attributes (properties).
- To understand the function of button objects in a program.
- To understand the importance of testing and debugging.

Key Resources

2Code

Key Vocabulary

Action
The way that objects change when programmed to do so. For example, move.

Attribute
A detail about an object in a program. For example, its name, or its size.

Algorithm
A set of instructions in order.

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

Button Object
A type of object in 2Code that responds only to click events.

Collision Detection
An event command that detects whether two objects have touched each other.

Command
A single instruction in a coding program.

Debug\ Debugging
Fixing code that has errors so that the code will run the way it was designed to.

Event
Something that happens in a program that causes a block of code to be run.

Object
An item in a program that can be given instructions to move or change in some way.

Output
Information that comes out of the computer e.g. sound.

Program
A set of instructions (an algorithm) that tells a computer what to do.

Purple Mash Computing Scheme: Knowledge Organiser

Year 2 Coding

Program Design
When coding, the program design includes details of the objects, events and actions that the program should include.

Sequence
When a computer program runs commands in order.

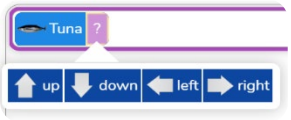
Timer
In coding, use a timer command to run a block of commands at regular intervals.

When Clicked
An event command that is triggered when an object is clicked on.

When Key Event
An event triggered when a user presses a particular key on the keyboard.

When Swiped Event
An event triggered when the user swipes a particular area of the screen e.g. the background (touch-screen devices only).

Key Images



Object actions

Timer


Burger menu


Save


Instructions

Open Design view

Open Code view

Key Questions

What is an algorithm? Why is it useful in coding?

An algorithm is a step-by-step set of instructions used to solve a problem or achieve an objective. A clear algorithm can help you to create code that does what it is supposed to do.

If you are good at coding, you don't need to debug. Is this true?

All coders need to debug to make sure that their program works correctly, and the code does what they intended. As you get better at coding, your programs will get more complex and debugging gets even more important.

Why is it important to know there are different object types?

Different object types can do different actions. For example, in 2Code, an animal object can do actions such as up, down and stop. A turtle goes forward and backward in steps.