



Unit 6.1: Coding

- **Action:** A type of command which causes an object to alter its behaviour. Actions 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 2Code.
- **Concatenation:** The action of linking things together in a series.
- **Co-ordinates:** Numbers which determine the position of a point, shape or object in a particular space.
- **Debug\ Debugging:** Fixing code that has errors so that the code will run the way it was designed to.
- **Decomposition:** A method of breaking down a task into manageable components. This makes coding easier as the components can then be coded separately and then brought back together in the program.
- **Event:** An occurrence that causes a block of code to be run. The event could be the result of user action such as the user pressing a key (**when Key**) or clicking or swiping the screen (**when Clicked, when Swiped**) or when objects interact (**collision**). In 2Code, the event commands are used to create blocks of code that are run when events happen.
- **Execute\ Run:** Clicking the Play button to make the computer respond to the code. Execute is the technical word for when you run the code. We say, 'the program (or code) executes.'
- **Flowchart:** A diagram that uses specifically shaped, labelled boxes and arrows to represent an algorithm as a diagram.
- **Function:** A block or sequence of code that you can access when you need it, so you don't have to rewrite the code repeatedly. Instead, you simply **call** the **function** each time you want it.
- **Input:** Information going into the computer. This could be the user moving or clicking the mouse, or the user entering characters on the keyboard. On tablets there are other forms such as finger swipes, touch gestures and tilting the device. In 2Code the commands **prompt for input** and **get input** are used to prompt the user to enter typed input and then use this input.
- **Launch Command:** This command will open another Purple Mash file or an external website that you specify when it is called.
- **Object:** Items in a program that can be given instructions to move or change in some way (action). In 2Code Gorilla, the **object types** are button number, input, text, shape turtle, character, object, vehicle, animal.

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- **Output:** Information that comes out of the computer e.g. sound. prompt, alert or print to screen.
- **Predict:** Use your understanding of a situation to say what will happen in the future or will be a consequence of something.
- **Procedure:** An independent code module that fulfils a task and is referenced within a larger body of code. In 2Code a procedure might be coded as a function.
- **Properties:** These determine the look and size of an object. Each object has properties such as the image, scale and position of the object.
- **Repeat:** This **command** can be used to make a **block of commands run** a set number of times or forever.
- **Repeat until:** In 2Code this command will repeat a block of commands until a condition is met.
- **Selection:** Selection is a decision command. When selection is used, a program will choose which bit of code to run depending on a condition. In 2Code selection is accomplished using **'if' or 'if/else' statements**.
- **Sequence:** This is when a computer program runs commands in order.
- **Simulation:** A model that represents a real or imaginary situation. Simulations can be used to explore options and to test predictions.
- **String:** Text or a combination of text characters and numbers: A sequence of characters, which could form words, phrases or even whole sentences.
- **Tabs:** In 2Code tabs are used to organise code.
- **Text Adventure:** A computer game that uses text instead of graphics.
- **Text Object:** An object that can contain text and be formatted using the properties of colour and border. It is not a clickable object but can be programmed to hide.
- **Timer:** In coding, use a timer command to run a block of commands after a timed delay or at regular intervals.
- **Turtle Object:** A type of object in 2Code that moves by coding angles of rotation and distance to move.
- **Variable:** A named area in computer memory. A variable has a **name** and a **value**. The program can change this variable value. Variables are used in programming to keep track of things that can change while a program is running.
- **x and y properties:** Properties of an object that denote its position on the screen. In 2Code the top left of the screen is (0,0) with maximum values of x and y determined by the grid size property of the background.