Purple Mash Computing Scheme of Work: Knowledge Organisers

Unit: 1.4 Lego Builders

Key Learning

- · To compare the effects of adhering strictly to instructions to completing tasks without complete instructions.
- To follow and create simple instructions on the computer.
- · To consider how the order of instructions affects the result.

Key Vocabulary

Instruction

Information about how something should be done.

Algorithm

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

Computer

An electronic device for storing and processing data.

Program

To provide (a computer or other machine) with coded instructions.

Debug

To find and remove errors from computer hardware or software.

Key Resources





Key Questions

What is an instruction?

An instruction takes you through something step by step so that you can successfully complete a task.

Why do we need to debug code?

When you write code, it won't always work correctly first time. When you search for the errors and correct them, this is known as debugging.

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Unit: 1.5 Maze Explorers

Key Learning

- To understand the functionality of the direction keys.
- · To understand how to create and debug a set of instructions (algorithm).
- To use the additional direction keys as part of an algorithm.
- To understand how to change and extend the algorithm list.
- To create a longer algorithm for an activity.
- · To set challenges for peers.
- To access peer challenges set by the teacher as 2Dos.

Key Resources





Key Vocabulary

Direction

A course along which someone or something moves.

Challenge

A task or situation that tests someone's abilities.

Arrow

A mark or sign resembling an arrow, used to show direction or position.

Undo

Cancel or reverse the instruction.

Rewind

Move back several steps or to the start.

Forward

To move in the direction that one is facing or travelling.

Backwards

To move in the opposite direction to which one is facing.

Right turn

To move the object in a clockwise direction.

Left turn

To move the object in an anti-clockwise direction.

Debug

To find and remove errors from computer hardware or software.

Instruction

Information about how something should be done.

Algorithm

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



