Year 4 On the Move with Programming Knowledge Organiser

**Key words and prior learning from Year 4 Scratch Programming from Algorithm to Code**

Scratch –block-based programming language by MIT

Controlled count loop - this is used in a program when we need to repeat something a number of times

Input – this is an event that triggers an action/code block

Costumes – the way a sprite looks – these can be used to show movement

Broadcast – an input that can be used to trigger events
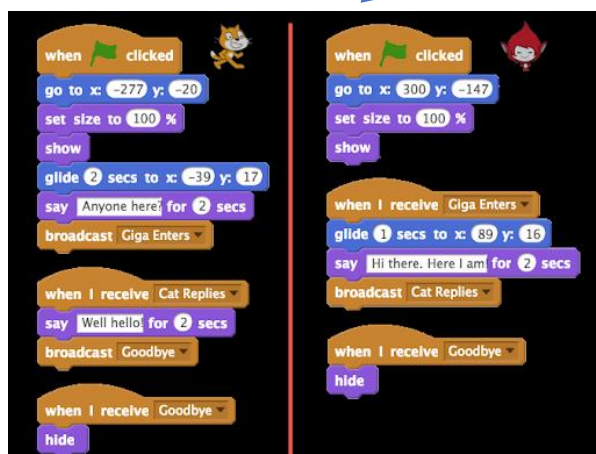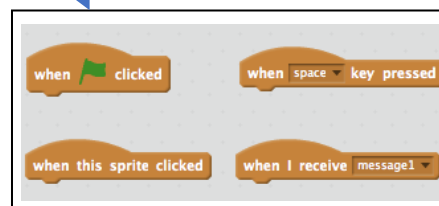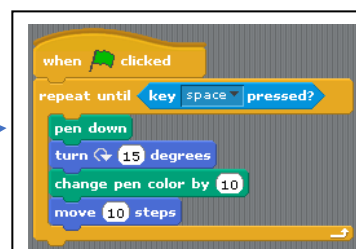
Key Learning	Self-Assessment		
	WT	A	WA
I understand what an input is			
I can move a sprite up, down, left and right using different inputs such as keyboard and mouse			
I can change the look of a sprite, through code, to switch between costumes			
I understand how and when to use the wait command in coding			
I understand the need for a continuous loop in programming			
I understand that selection in programming uses if then statements			
I can compare block-based code to an algorithm and identify where changes need to be made in the code to match the algorithm			

Who uses skills like these?

- Mobile app developers
- Computer game developers
- Programmers who create safety features for systems e.g. fairground rides, carpark barriers

New key words we will use in Year 4 On the Move with Programming

Quadrant x and y axis – x axis is the horizontal line and the y axis is the vertical line which divide the plane into four sections called quadrants which provide coordinates

Initialisation – to give an object (sprite) a starting value or variable which it uses to reset itself

Continuous loop – a program that runs the same instruction continuously until it is either stopped or interrupted

Selection/condition – an action that occurs if something specific happens

If..then..Statement – used in programming to trigger a set of instructions

Decomposition – breaking down a complex problem or system into smaller parts that are more manageable and easier to understand. The smaller parts can then be examined and solved, or designed individually, as they are simpler to work with