Computing	Programming B – Selection in Quizzes	Year 5	Summer 2

Key Knowledge

To explain how selection is used in computer programs	- I can identify conditions in a program - I can modify a condition in a program - I can recall how conditions are used in selection
To relate that a conditional statement connects a condition to an outcome	- I can create a program with different outcomes using selection - I can identify the condition and outcomes in an 'if... then... else...' statement - I can use selection in an infinite loop to check a condition
To explain how selection directs the flow of a program	- I can design the flow of a program which contains 'if... then... else...' - I can explain that program flow can branch according to a condition - I can show that a condition can direct program flow in one of two ways
To design a program which uses selection	- I can identify the outcome of user input in an algorithm - I can outline a given task - I can use a design format to outline my project
To create a program which uses selection	- I can implement my algorithm to create the first section of my program - I can share my program with others - I can test my program
To evaluate my program	- I can extend my program further - I can identify the setup code I need in my program - I can identify ways the program could be improved

Statutory requirements

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- "use sequence, selection, and repetition in programs; work with variables and various forms of input and output"
- "use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs"
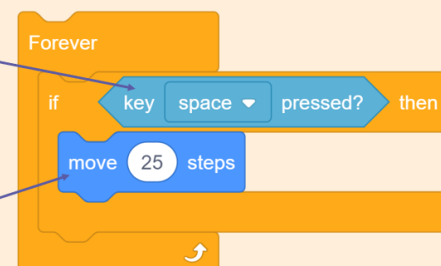
Key vocabulary

Spelling	Definition
Condition	A statement that can be either True or False
Debug	The process of finding and correcting errors in a **program**
Count Controlled Loop	A count controlled loop is created by **repeating an instruction** a set number of times.
Selection	A computer program is a list of **instructions** written in a way that a computer can understand, so the choices need to be part of the **program.** We call this part of programming, '**selection**'.
Input	**Data** that is sent to a **program** to be **processed**

Possible experiences

- Use selection to design your own program using scratch online.
- Share a program you have designed with friends by sharing it using the website.
- Investigate different coding platforms to apply your knowledge of selection and count controlled loops to. Use the following link for some ideas of different platforms:
  CoderDojo useful links | Science Museum

Condition: if space bar is pressed

Action: to be carried out when the condition is true