Medium Term Plan: Supporting Implementation of LTP/Progression Grid

Subject: Computing – Programming: Selection in Quizzes Year: UKS2 – Year A – Autumn

NC/PoS:

- 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
- select, use and combine a variety of software (including internet services) on a range of digital devices to
 design and create a range of programs, systems and content that accomplish given goals, including collecting,
 analysing, evaluating and presenting data and information

Prior Learning (what pupils already know and can do)

Understanding giving and following instructions, using floor robots to create and debug programs, creating a sequence of commands to follow a routed, using Scratch Jnr to create a program using blocks, how to add music and link to motion, how to use the pen tool within programmes, how to use repeat and create count-controlled loops, how to create a programme in a text-based language

End Points (what pupils MUST know and remember)

- To explain how selection is used in computer programs
- To relate that a conditional statement connects a condition to an outcome
- To explain how selection directs the flow of a program
- To design, create and evaluate a program that uses selection

Key Vocabulary

Selection, condition, true, false, count-controlled loop, outcomes, conditional statement (the linking together of a condition and outcomes), algorithm, program, debug, question, answer, task, design, implement, test, run, setup

Session 1: Selection and Conditions

What is meant by a condition? What is meant by selection? How do they impact the flow of actions within a program? How can identify and modify the conditions within an existing program? What impact will this have?

How can we use 'if... then... else...' to change the outcome of the program? Why do we need to use repetition to check the conditions? Can we use the existing code to create our own?

Vocabulary: Selection, condition, true, false, count-controlled loop

Session 2: Asking questions

How can conditions and selection be used together to create a question? What actions will need to be considered when creating a 'yes/no' question? If the answer is a condition, what selection structure will need to be considered? Can we design a program within Scratch which used selection to direct the flow of the program? How can we test the program? Are we able to achieve both outcomes through varied answers?

Vocabulary: Selection, condition, true, false, outcomes, conditional statement (the linking together of a condition and outcomes), algorithm, program, debug

Session 3:

How can we use conditions and selection to create a quiz on a particular topic? How can selection be used to control the outcomes based on the answers given? Can we use templates to support our design? How can we ensure both correct and incorrect responses are accepted? How can we ensure the sequence of

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questions suit the outcome? How can we test our program? How can our peers help to evaluate our quiz? How can the feedback provided be used to make improvements? Does the quiz suit the specifications provided?

Vocabulary: Selection, condition, true, false, outcomes, question, answer, algorithm, program, debug, task, design, input, implement, test, run

Future learning this content supports:

The content of this unit will support other units on using condition and selection within a program.