Medium Term Plan: Supporting Implementation of LTP/Progression Grid

Subject: Computing – Selection in Quizzes Year: A – Phase 3 – Unit 2/4

NC/PoS:
- Design, write, and debug programs that accomplish specific goals.
- Use selection to control the flow of actions in programs.

Prior Learning (what pupils already know and can do)
- Familiarity with Scratch and basic programming concepts.
- Understanding of selection and conditions from prior physical computing units.

End Points (what pupils MUST know and remember)
- Use the "if...then...else" structure to guide program outcomes.
- Design and implement a quiz program using Scratch.
- Debug and refine quiz programs based on feedback.

Key Vocabulary
Selection, condition, true/false, program flow, algorithm, debug.

Recommended Resources:
- Hardware: Laptops or tablets with Scratch installed.
- Software: Scratch (online or offline).
- Other Resources: Quiz design templates and example algorithms

Unplugged activities provide possible opportunities for the children to record.

Curriculum Connections:
- English: Designing and testing quiz questions.
- Maths: Logical reasoning to structure program flow

Career Opportunities:
- Game Developer: Programming interactive applications.
- Educator: Designing digital tools for learning assessments.

Session 1: Exploring Conditions

Objective: To identify and modify conditions in a program.
Digital Activity: Experiment with pre-made Scratch programs to change conditions.
Unplugged Activity: Role-play "if...then" scenarios with physical actions.

Key Vocabulary: Condition, selection, modify.

Session 2: Selecting Outcomes

Objective: To use the "if...then...else" structure in programs.
Digital Activity: Create programs with two possible outcomes based on user input.
Unplugged Activity: Write algorithms for branching outcomes on paper.

Key Vocabulary: Outcome, branching, structure.

Session 3: Asking Questions

Objective: To design algorithms with conditional questions.
Digital Activity: Implement a program that uses user responses to control flow.
Unplugged Activity: Write branching algorithms with yes/no outcomes.

Key Vocabulary: Question, algorithm, flow.

Session 4: Designing a Quiz

Objective: To plan and design a quiz program using selection.
Digital Activity: Use Scratch to draft a quiz structure.
Unplugged Activity: Complete design templates outlining questions and outcomes.

Key Vocabulary: Quiz, plan, design.
Session 5: Testing a Quiz Objective: To implement and test a quiz program. Digital Activity: Debug and refine Scratch programs based on peer feedback. Unplugged Activity: Test algorithms on paper for accuracy and logic. Key Vocabulary: Debug, test, refine.
Session 6: Evaluating a Quiz Objective: To evaluate and improve quiz programs. Digital Activity: Enhance programs based on evaluation criteria and user feedback. Unplugged Activity: Reflect on quiz designs and present improvements. Key Vocabulary: Evaluate, improve, feedback.
Future learning this content supports: – Expanding selection concepts to include variables and complex algorithms. – Designing interactive storytelling and simulation projects.