Medium Term Plan: Supporting Implementation of LTP/Progression Grid

Subject: Computing – Programming Animations Year: A – Phase 1 – Unit 4/5

NC/PoS:

- Understand algorithms as clear, ordered instructions.
- Create and debug simple programs.
- Use logical reasoning to predict the behaviour of simple programs.

Prior Learning (what pupils already know and can do)

- Pupils have experience with basic programming concepts (e.g. sequencing commands for Bee-Bots).
- Familiarity with instructions and the concept of input-output relationships.

End Points (what pupils MUST know and remember)

- Create simple animations using ScratchJr.
- Use and modify programming blocks to control sprites.
- Design and follow instructions to solve problems.

Key Vocabulary

instruction, sprite, block, command, sequence, background, debug.

Recommended Resources:

- Hardware: Tablets or laptops with ScratchJr installed.
- Software: ScratchJr application.
- Other Resources: Algorithm design sheets, sprite storyboards.

Unplugged activities provide possible opportunities for the children to record.

Curriculum Connections:

- Maths: Understanding sequences and predicting outcomes.
- Art: Designing sprites and backgrounds.
- English: Oracy and presenting ideas

Career Opportunities:

- Animator: Understanding sprite movements and designs.
- Game Designer: Creating interactive animations and games.

Session 1: Exploring ScratchJr

Objective: To navigate and use basic features of ScratchJr.
Digital Activity: Explore ScratchJr interface, move sprites using simple commands.
Unplugged Activity: Pupils role-play as sprites, following instructions on a pre-designed grid.

Key Vocabulary: Sprite, command, sequence.

Session 2: Joining Commands

Objective: To understand how to join blocks to create simple animations.
Digital Activity: Create a sequence of joined blocks to move a sprite across the screen.
Unplugged Activity: Use command cards to design and test sequences with peers acting as sprites.

Key Vocabulary: Block, join, sequence.

Session 3: Adjusting Values

Objective: To modify block values to control sprite movements.
Digital Activity: Experiment with changing step values to change sprite movement.
Unplugged Activity: Use measuring tools to simulate sprite steps on paper grids.

Key Vocabulary: Value, change, measure.

Session 4: Designing with Sprites

Objective: To add and program multiple sprites.

Digital Activity: Program two sprites to interact on-screen. Unplugged Activity: Design and describe interactions between characters using cutouts. Key Vocabulary: Sprite, interaction, design.
Session 5: Planning a Project Objective: To create an algorithm for an animated story. Digital Activity: Plan and program a "Space Race" story using ScratchJr. Unplugged Activity: Storyboard a set of instructions for a scene using paper templates. Key Vocabulary: instruction, storyboard, background.
Session 6: Presenting Animations Objective: To share and reflect on completed projects. Digital Activity: Present animations and discuss the process with peers. Unplugged Activity: Write and illustrate a reflection on the animation process. Key Vocabulary: Present, reflection, debug.
Future learning this content supports: – Developing conditional logic and loops in KS2. – Building more complex interactive programs.