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| **Term Pentecost 2 Programming B- Programming Animations**  **Subject Computing Year 1 Medium Term Planning** | | | | | | |
| **National Curriculum Objectives**  ● Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions  ● Create and debug simple programs  ● Use logical reasoning to predict the behaviour of simple programs | | | | | | |
|  | Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 |
| **Learning intention for each lesson:** | I know how to choose a command for a given purpose. | To know that a series of commands can be joined together | To identify the effect of changing a value | To explain that each sprite has its own instructions | To design the parts of a project | To use my algorithm to create a program |
| **Recall and retrieval** | Task – what is needed  Design – what it should do  Code – how it is done  Running the code – what it does | How do I make the sprite go…? | How can I make the sprite move… ?  What block do I need to make the sprite move? | How can I make the sprite move forwards 5 spaces, backwards 3 spaces? | How do I delete a sprite I no longer need? | Show me how to choose and change a background. |
| **Sequence of knowledge throughout the lesson**  **:**  **Key skills within each lesson** | **Key knowledge**  I know how to choose a command for a given purpose  I know how to find the commands to move a sprite  I know how to use commands to move a sprite  **To become familiar with characters and functions on Scratch.**  **To know the function of some function keys.** | **Key knowledge**  I know how to use more than one block by joining them together  I know how to use a Start block in a program  I know how to run my program    **To know how to identify and correctly sequence blocks.**  **To know the function of the blocks.** | **Key knowledge**  I know how to find blocks that have numbers  I know how to change the value  I know how to say what happens when I change a value  **To learn how to identify numbers on blocks.**  **To know how to change the values**  **To know how to identify the effect on a block of changing a value** | **Key knowledge**  I know how to show that a project can include more than one sprite  I know how to delete a sprite  I know how to add blocks to each of my sprites  **To know how to add and delete sprites in ScratchJr.**  **To know that a sprite has its own programming area.**  **To learn how to add programming blocks to give instructions to each of the sprites.** | **Key knowledge**  I know how to choose appropriate artwork for my project  I know how to decide how each sprite will move  I know how to create an algorithm for each sprite  **To know how to choose appropriate backgrounds**  **To know how to choose sprites for a ‘Space race’ project.**  **To decide how each sprite will move,**  **To know how to create an algorithm based on the blocks available in ScratchJr.** | **Key knowledge**  I know how to use sprites that match my design  I know how to add programming blocks based on my algorithm  I know how to test the programs I have created    **To know how to choose a sprite.**  **To know how to program and sprite.**  **To know how to test a simple program for a sprite.** |
| **Scaffolding** | Supported to access function keys | Support to identify and link the blocks | Smaller selection of blocks and lower numbers | one sprite | one sprite | Simple program. |
| **Challenge** | To investigate a variety of function keys.. | More blocks added | Wider selection of blocks and values. | addition of different blocks for each sprite. | more than one sprite. | Simple debugging.. |
|  | **Key Vocabulary**  ScratchJr, Bee-Bot, command, sprite, compare, programming, programming area | **Key Vocabulary**  Block, joining, command, Start block, run, program, programming area, background, delete, reset, algorithm, **predict** | **Key Vocabulary**  Effect, change, value, block | **Key Vocabulary**  **.**Instructions, sprite, delete, program, algorithm | **Key Vocabulary**  Sprite, background, appropriate, algorithm | **Key Vocabulary**  Sprite, design, programming blocks, algorithm, programs |