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|  Lent 1: Programming ASubject Computing Year 3 Medium Term Planning  |
| **National Curriculum Objectives*** 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
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|  | Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 | Lesson 6 |
| **Learning intention for each lesson:** | I know how to explore a new programming environment | I know how to identify that commands have an outcome | I know how to explain that a program has a start | I know how to recognise that a sequence of commands can have an order | I know how to change the appearance of my project | I know how to create a project from a task description  |
| **Recall and retrieval** | Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, note, chord, sequence | Identify the objects. | Match the command to the sprite’s movement. | How many ways can you start a program? | Sequence a series of commands. |  Match the action to the sprite. |
| **Sequence of knowledge throughout the lesson** | * I know how to identify the objects in a Scratch project (sprites, backdrops)
* I know how to explain that objects in Scratch have attributes (linked to)
* I know how to recognise that commands in Scratch are represented as blocks
 | * I know how to identify that each sprite is controlled by the commands I
* I know how to choose a word which describes an on-screen action for their plan
* I know how to create a program following a design
 | * I know how to start a program in different ways
* I know how to create a sequence of connected commands
* I know how to explain that the objects in my project will respond exactly to the code
 | * I know how to explain what a sequence is
* I know how to combine sound commands
* I know how to order notes into a sequence
 | * I know how to build a sequence of commands
* I know how to decide the actions for each sprite in a program
* I know how to make design choices for my artwork
 | * I know how to identify and name the objects I will need for a project
* I know how to relate a task description to a design
* I know how to implement my algorithm as code
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| **Scaffolding** | Support to identify | 2 or 3 commands | Simple sequence | To combine 2 or 3 sounds | Support to choose. | Support to design  |
| **Challenge** | Identify many objects. | 3+ commands | more complex sequence | To combine 3+ sounds. | 4+ commands to squence | More complex task. |
|  | **Key Vocabulary**Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop,  | **Key Vocabulary**Sprites, programming blocks, motion, turn, point in direction, go to, glide | **Key Vocabulary** Sequence, event, task, design, code, run the code | **Key Vocabulary** Sequence, order, note, chord | **Key Vocabulary** Sprite, stage, costume, backdrop | **Key Vocabulary**Design, algorithm, bug, debug |