|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date:** | | **Class:** 7 |  | **HW:** | |
| **The Big Picture**  Pupils are being introduced to programming using a text based language. Some may have already had experience of using a “drag n drop” or “building block” method to write programs. These lessons will give pupils the opportunity to experience writing / running programs and develop a range of skills such as problem solving that can be used across curriculum areas. | | | | | |
| **Lesson Objectives All**   * Be able to - Define and name a variable * Use variables to store text or numbers * Use arrays to store multiple values | | | | | |
| **T** | **Teacher** | | | | **Pupils** |
| 5min  5min  20min  20minmin  10 min | **Starter: - word search (3 versions for range of abilities)** Do this while completing the register  Learning intentions should be written in pupils books.  Task 1 - Demonstrate what a variable and an array are.  Task 2 – Demonstrate how to name a variable - it should be stressed that the use of sensible / appropriate names must be used.  Encourage pupils to “de-bug” their program if it doesn’t work for spelling mistakes or missing code - they should try to do this independently  Task 3 – Demonstrate Area & perimeter  Task 4 – Demonstrate the use of an array - in this example pupils can see that the variable “students” can store the names of different pupils by using indices for each pupil   * **Pupils should print screen their programs and print them out**   Plenary **– Stick print code into books then annotate them with their** WWW & EBI comments | | | | Pupils should write a definition of a variable and an array in their own words into their books  Pupils write the code for the number program  Independent pupil work to write, de-bug if needed, run and save their programs |
| **Success criteria - pupils should be able to say if they have been successful if they have:-**   * Written a program which uses a variable * Written a program that uses an array * Explained the difference between a variable and an array | | | | | |
| **Differentiation / Extension**  Pupils may want to use the colour coded printed worksheets to refer to and assist in the writing of the code. There are 2 versions one allows lower ability pupils to achieve the same learning intentions by writing less code.  ELO - Extension task – show what you know | | | | | |
| **Assessment For Learning**   * The programs they create | | | | | |