YEAR 11 CURRICULUM PLAN FOR Computer Science

TOPIC	KEY LEARNING	ASSESSMENT
• SLR 2.2 Programming fundamentals o 9 lessons • SLR 2.1 Algorithms o 5 lessons Plus 3 paper 2 exam revision lessons	Variable, Constant, Operator, Assignment, Programming construct, Sequence, Selection, Count controlled iteration, Condition controlled iteration, Arithmetic operator, AND, OR, NOT, ==, !=, <, <=, >, >=, +, -, *, /, MOD, DIV, ^, Data type, Integer, Real, Boolean, Character, String, Casting, String manipulation, OPEN, READ, WRITE, CLOSE, Record, SQL, SELECT, FROM, WHERE, Array, Sub program, Procedure, Function, Random number generation	SLR 2.2 Student workbook SLR 2.2 End-of-topic test
• SLR 2.1 Algorithms o 13 lessons Plus 7 paper 2 exam revision lessons	Computational Thinking, Abstraction, Decomposition, Algorithmic thinking, Problem inputs, Problem processes, Problem outputs, Structure diagram, Pseudocode, Flowchart, Trace table, Searching algorithms, Binary search, Linear search, Sorting algorithm, Bubble sort, Merge sort, Insertion sort	SLR 2.1 Student workbook SLR 2.1 End-of-topic test
• SLR 2.3 Producing robust programs o 8 lessons Plus 7 paper 2 exam revision lessons	Defensive design, Anticipating misuse, Authentication, Input validation, Maintainability, Naming conventions, Indentation, Commenting, Testing, Iterative testing, Final/terminal testing, Syntax error, Logical error, Test data, Test data: Normal, Test data: Boundary, Test data: Invalid, Test data: Erroneous	SLR 2.3 Student workbook SLR 2.3 End-of-topic test
• SLR 2.4 Boolean logic o 5 lessons • SLR 2.5 Programming languages and IDEs o 6 lessons Plus 4 paper 2 exam revision lessons	Logic diagram, Logic gate, AND, OR, NOT, Truth table High-level language, Low-level language, Translator Compiler, Interpreter, IDE, IDE: Error diagnostics, IDE: Run-time environment	SLR 2.4 Student workbook SLR 2.4 End-of-topic test SLR 2.5 Student workbook SLR 2.6 End-of-topic test
This final term before Easter has been set aside for revision		Past papers Smart Revise app

| Topic title for half-term 6 | | |