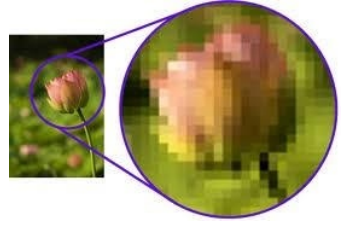# Computer Science Curriculum Map (Year 11)

Pearson / Edexcel (GCSE) [2022 – 2023]

Practical & Theory GCSE Exams

Revision for theory exam

Revision for practical exam

Year 10 – Term 3

Practical & Theory Assessment

Data Structures – one dimensional, Errors.

Data types, string manipulation and validation
Data structures (one-dimensional)
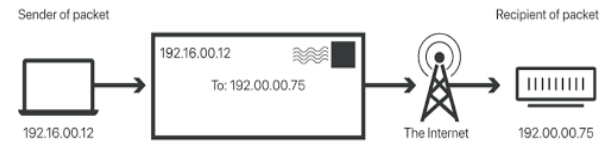Trace tables
Errors
Problem solving

Sound, Bitmaps, Compression

Bitmaps – how graphics are stored using binary.
Sound - how sounds are stored using binary.
Compression – lossy and lossless

Practical & Theory Assessment

Data Structures – two dimensional - Flow charts.

Data structures (two-dimensional)
Subprograms (local, global, procedures, functions)
Problem solving
Trace tables, errors
Problem solving, testing with data

AI, Robotics, Data Protection & Computer misuse acts.

AI, machine learning & robotics 1
AI, machine learning & robotics 2
Personal data
Privacy & ownership
Data protection legislation

Year 11 – Term 2

Sender of packet
192.16.00.12
To: 192.00.00.75
192.16.00.12
The Internet
Recipient of packet
192.00.00.75

Practical & Theory Assessment

Environmental issues, low/high level programs

Environmental impact: manufacture & use
Environmental impact: e-waste
Low-level & high-level languages
Translators
Intellectual Property

Trace tables, Bubble sort, Binary search

Trace tables
Errors
Bubble sort
Binary search
Problem solving

Practical & Theory Assessment

Embedded systems, Packets, TCP/IP

Embedded systems
The Internet of Things
Packet switching
TCP/IP 1
TCP/IP 2

Sub programs, Libraries, Local vs Global Variables

Intro to programming
Subprograms
Local, global
Maths, time
Problem solving

First pass

7	6	4	3
swap			
6	7	4	3
swap			
6	4	7	3
swap			
6	4	3	7

Second pass

6	4	3	7
swap			
4	6	3	7
swap			
4	3	6	7

4	3	6	7
swap			
3	4	6	7

Year 11 – Term 1