Information Software and Technology Outline: Year 10

Term	Week	Unit of Work	Key Concepts	Class Tasks and Homework	Assessments
1	1 - 4	Data Handling	Data and Information, Analogue and digital data Binary representation of data, compression, serial and parallel transmission, storage and backup.	Worksheets, reading class discussion – video materials.	Theory assessed in the half yearly exam – see later.
	5 - 9	Digital media	Types of digital media, OCR, data manipulation techniques digitizing process, factors affecting the size of files, DTP. Vector and bit mapped images	Use of Photoshop, MS Publisher, Premier Pro. Worksheets – activity sheets	Create and document a digital video in a group. - 15%
2	1 - 4	Programming - Visual basic	Variables, control structures, language syntax Functions, modular approach, data type, flowcharts and pseudocode. GUI design and IPO charts.	Use of sequenced demonstrations and training videos to build skills in learning and use of Visual Basic. Worksheets and activity sheets on theory.	Half Yearly exam – 20%
	4 - 10				Programming Assign – 15%
3	1 - 10	Modelling /Simulation/AI	Difference between Modelling and Simulation. What is AI – Strong and weak AI. Turing test. Examples of AI modelling and simulation. Spreadsheets.	Python Competition held here. Videos materials. Worksheets activity sheets on theory. The use of sequenced demonstrations and training videos to build skills in learning and use of Excel.	Practical Spreadsheet Test in class. – 15%
4	1 - 6	Database	Flat vs relational database. Tables, Fields, Queries, Reports, Macros. Schema, Primary Keys, Foreign keys. SQL, Examples databases in use.	Learning the use of MSAccess used sequenced activities. Theory worksheets and activity sheets.	Library Database assignment -15% Final Exam – 20%
	7 - 10	Revisiting highlights of the course	Students select an area of the course they enjoyed working on the most through the year. Developing skills in the use of software in this area.	Students can select to revisit : Web design, programming, spreadsheets, database, digital media	Not Assessed