Success! GCSE ICT – Topic to syllabus table

The table below matches the syllabuses from the different examination boards to the topics in the book. Syllabuses are presented in a variety of ways; some are very detailed, while others are much more general. Teachers are recommended to carry out a more detailed analysis for the particular syllabus they are using.

Key:

● = Included in the syllabus

○ = Mentioned in the syllabus but not specific

Blank cell = Not included in the syllabus

Section	Topic	AQA	AQA	Edexcel	OCR	WJEC
		A	B		A	
1	**Types of computer**	●	●	●	●	●
	Supercomputer					●
	Mainframe computer		●		●	●
	Microcomputer	●	●	●	●	●
	Notebooks		●		●	●
	Personal digital assistants		●		●	●
	Embedded computers		●		●	●
2	**Input devices – Physical**	●	●	●	●	●
	Keyboard	●	●	●	○	●
	Braille keyboard	●			○	●
	Concept keyboard	●		●	○	●
	Mouse	●	●	●	●	●
	Trackerball	●	●	●	●	
	Joystick	●	●		●	●
	Graphics tablet	●		●	●	●
	Touch pad	●	●		●	●
3	**Input devices – Light**	●	●	●	●	●
	Optical mark reader (OMR)	●	●	●	●	●
	Scanner	●	●	●	●	●
	Optical character recognition (OCR)	●	●	●	●	●
	Bar code reader	●	●	●	●	●
	Touch screen	●	●	●	●	●
	Light pen	●				●
	Digital camera and Web cam	●	●	●	●	●
	Video capture	●			●	●

4	**Other input devices**	●	●	●	●	●
	Magnetic ink character recognition (MICR)	●	●		●	●
	Magnetic stripe	●	●	●	●	●
	Smart card					●
	Microphone	●	●	●	●	●
	Musical instrument digital interface (MIDI)				●	●
	Sensors (switches, thermistors, LDRs)	●	●	●	●	●
5	**Output devices – Monitors**	●	○	●	○	●
	Traditional CRT monitors	●	○	●	○	●
	Flat panel monitors (TFT)	●	○		○	●
	Liquid crystal displays	●	○	●	○	●
6	**Output devices – Printers and plotters**	●	○	●	●	●
	Laser printer	●	○	●	●	●
	Ink-jet printer	●	○	●	●	●
	Dot-matrix printer	●	○	●	●	●
	Plotters	●		●	●	●
7	**Output devices – Others**	●	●	●	●	●
	Speakers	●	●	●	●	●
	Switches	●			●	●
	Actuators	●	●	●	●	●
8	**Back-up storage**	●	●	●	●	●
	Hard disks	●	●	●	●	●
	Floppy disks	●	●	●	●	●
	Disk access time		●		●	●
	Compact disc (CD)	●	●	●	●	●
	DVD	●	●		●	●
	Magnetic tape	●	●	●	●	●
9	**The processor and memory**	●	●	●	●	●
	Central processing unit (CPU)	●		●	●	●
	Binary digits		●	●		●
	Random access memory (RAM)	●	●	●	●	●
	Read only memory (ROM)	●	●	●	●	●

11 – 13	**Databases**	●	●	●	●	●
	Types, flat file/relational databases	●	●			
	Database fields	●	●	●	●	●
	Database records	●	●	●	●	●
	Searching and sorting databases	●	●	●	●	●
	Database reports	●	●	●	●	●
	Macros		●			
14, 15	**Word processing**	●	●	●	●	●
	Formatting	●	●	●	●	●
	Page design	●	●		●	●
	Style sheets		●		●	●
	Mailmerge	●		●	●	●
	Editing	●	●	●	●	●
	Spell-check		●	●	●	●
	Grammar check		●		●	●
	Thesaurus					●
16	**Desktop publishing**	●	●	●	●	●
	Formatting	●	●	●	●	●
	Text wrapping	●	●	●	●	●
	Layering	●		●	●	●
	Graphic manipulation	●		●	●	●
17	**Computer art and design**	●	●	●	●	●
	Painting	●	●	●	●	●
	Drawing	●	●	●	●	●
	Computer aided design			●	●	●
18	**Presentation software**		●		●	●
	Slides		●		●	●
	Animation		●		●	●
19	**Web site design and publishing**	●	●			
	Creating Web pages	●	●		●	
	Web site design	●	●			●

20	**Spreadsheets**	●	●	●	●	●
	Cells	●	●	●	●	●
	Calculations	●	●	●	●	●
	Formulae and functions	●	●	●	●	●
	Graphs and charts	●	●	●	●	●
21	**Modelling and simulation**	●	●	●	●	●
	Modelling packages	●	●	●	●	●
	Simulation packages	●	●	●		
22	**Data logging**	●	●	●	●	●
	Sensors	●	●	●	●	●
	Analogue to digital				●	
	Calibration	●				
23	**Computer control**	●	●	●	●	●
	Actuators	●	●		●	●
	Feedback	●	●		●	●
	Control examples	●	●	●	●	●
24	**Programming languages**	●	●	●	●	
	Algorithm	●	●	●	●	
	Variables	●			●	
	Programming techniques				●	
	Program flow charts		●	●		
25, 26	**Operating systems**	●	●	●	●	●
	Methods of operation	●	●	●	●	●
	Batch processing	●	●	●	●	●
	Real-time processing	●	●	●	●	●
	Operating system tasks	●		●		●
	Human-computer interface	●	●	●	●	●
	Graphical user interface (GUI)	●	●	●	●	●
	Command line interface	●		●	●	●
27, 28	**Software development**	●	●	●	●	●
	System life cycle	●	●	●	●	●
	Feasibility study	●	●	●	●	●
	Top-down design	●	●			
	Data flow diagrams		●	●		

30, 31	**Data**	●	●	●	●	●
	Data representation (ASCII code)	●	●	●	●	●
	Fixed length records	●		●	●	●
	Variable length records	●			●	●
	Calculating data size	●	●	●	●	●
	Information and data	●	●			●
	Coding data	●	●	●	●	●
32	**Capturing and presenting data**	●	●	●	●	●
	Range of input devices	●	●		●	●
	Turnaround documents				●	
	Questionnaires	●	●	●	●	●
	Presenting data	●	●	●	●	●
33	**Verification and validation**	●	●	●	●	●
	Verification	●	●	●	●	●
	Validation	●	●	●	●	●
	Validation – Presence check	●				●
	Validation – Character count			●		
	Validation – Range check	●	●	●	●	●
	Validation – Picture check	●	●	●	●	●
	Validation – Table lookup		●		●	
	Validation – Hash totals (control totals)					●
	Validation – Check digits	●	●	●	●	●
34	**File handling**	●	●	●		●
	Files (master, transaction, updating)	●		●		●
	System flow charts	●	●			
	File generations (grandfather, father, son)	●		●		
35	**Security of data**	●	●	●	●	●
	Care of disks	●	●			●
	Back-ups	●	●	●	●	●
	Passwords	●	●	●	●	●
	Hackers	●	●	●	●	●
	Computer fraud		●		●	
	Viruses		●		●	●

37	**Computer networks**	●	●	●	●	●
	Local area networks (LAN)	●	●	●	●	●
	Wide area networks (WAN)	●	●	●	●	●
	Network topology (star, bus, ring)	●	●	●	●	●
38	**Network connections**	●	●	●	●	●
	Cables			●	●	●
	Microwave				●	●
	Satellite			●	●	●
	Modem	●	●	●	●	
	ISDN	●			●	
	Network cards		●	●		●
39, 40	**Internet**	●	●	●	●	●
	How to connect			●		●
	Internet service providers (ISPs)		●	●		●
	World Wide Web	●	●	●	●	●
	Web browsers	●	●	●	●	●
	General use of the Internet	●	●	●	●	●
	e-business/e-commerce		●	●	●	●
	Web site design		●			●
	Researching information		●	●	●	●
41, 42	**Communication**	●	●	●	●	●
	Methods of communication	●	●	●	●	●
	Email	●	●	●	●	●
	Mobile phones	●	●	●	●	●
	Video conferencing			●	●	●
44 – 51	**Applications of ICT and society**	●	●	●	●	●
	Social, economic, ethical and moral effects	●	●	●	●	●
	Effect on jobs	●	●	●	●	●
52	**Computers and the law**	●	●	○	●	●
	The Data Protection Act, 1998	●	●	○	●	●
	The Computer Misuse Act, 1990	●	●	○	●	●
	The Copyright, Designs and Patents Act, 1989	●	●	○	●	●
53	**Health and safety**	●	●	●	●	●
	RSI and WRULD	●			●	●